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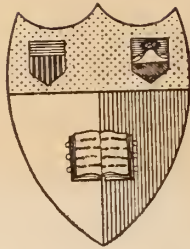
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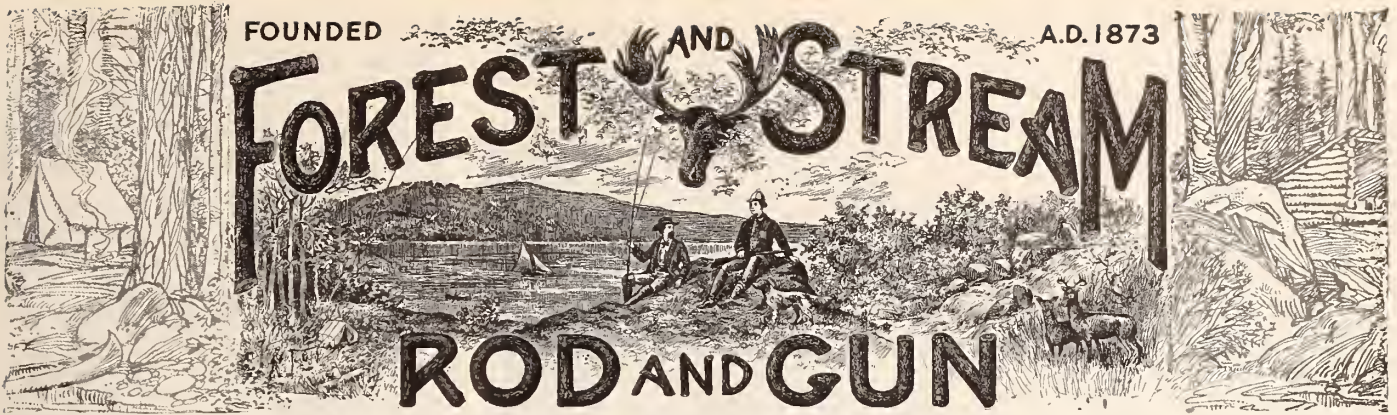
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ON THE TRAIL OF THE CLUB FOOT BEAR

A STORY OF BIG GAME IN THE CASCADE AND SISKIYOU RANGES WHEN ELK, DEER, BEAR AND BIG TIMBER WOLVES ROAMED THE FORESTS PRACTICALLY UNDISTURBED

By JOHN B. GRIFFIN

AS this is the first story I have written for FOREST AND STREAM, I will just say for the benefit of the readers that these stories are written from actual experiences in hunting big game for over twenty years in the Cascade and Siskiyou Range, when elk, deer, bear, and big timber wolves were roaming the forest practically undisturbed except by myself and dogs. During half of this time I had with me Trailer, who was supposed to be, and no doubt was, one of the best bear and cougar dogs on earth. He often treed two cougar in one day, and three and four bear in a day, a feat that is seldom done by any dog, and this he often did alone, without a helper. These facts are well known by any amount of people in Southern Oregon. As it is claimed that a cougar will kill on an average of fifty deer a year, it will be easy to see that Trailer saved the lives of a great number of deer to say the least.

I never allowed Trailer to run deer, only when wounded; and you can believe me when I tell you that whenever I drew blood, and sent Trailer after a deer, I was sure to get it. And when Trailer struck a bear or cougar track that was fresh it was nearly a sure shot that it would be climbing a tree in a short time.

In those days I used to go on hunting trips of several days' duration, taking long pack horses, and often had to dry or jerk the meat, as it would be too heavy to pack in fresh. Often I went alone, but at times I was accompanied by some friend who wished to take an outing. On the hunt that I intend telling you about in this story I had with me a man by the name of Templeton, who had never hunted big game before, but who afterwards became quite a hunter and was with me on a number of occasions when we had to handle our Winchesters pretty lively. He was a very excitable man, as you will find out when you read this story. I will call him Temp for short as that is what I always called him in those days.

I had heard of an immense grizzly that was ranging in the region around Mt.

Pitt. Occasionally it would take a stampee and get over in the Buck Lake country and kill a few sheep and sometimes a cow, or a big steer, and then hike back to his old stamping-ground north of Four Mile Lake, and would not show up in that locality for quite a while again. The sheep belonged to a man named Reddick, who tried all kinds of plans to trap him, but the old scamp was too foxy to be trapped. He probably had been in a trap before, as he had a crippled foot and



The old scamp was too foxy to be trapped made a peculiar track which gave him the name of the Club Foot Bear.

I received a letter from Reddick offering me one hundred dollars if I would come and kill the bear. At the time he wrote Old Club Foot had swooped down and killed a big four year old steer and he wanted me to come at once. So Temp and I started out one morning with our outfit of horses and dogs, Trailer and Ranger, and before noon the next day we landed at Reddick's camp on Buck Lake prairie where the steer had been killed. That afternoon he went with us and

showed us where the steer lay. The bear had not been there for a day or two; however, we could follow his tracks and found he had gone north toward Black Butte. The trail led us through a big burn for three or four miles where it was easy to follow, but after a while we struck the timber and brush. Then it was all off, and we went back to camp.

After holding a consultation with Reddick, we came to the conclusion that he had gone back to his old range. So the next morning we packed up and struck out for Four Mile Lake, at the foot of old Mt. Pitt, and the hunt was on for the trail of the Club Foot Bear. Our route lay through a level timber country for several miles, as we avoided the high hills and swung in by Lake of the Woods, and that night made our camp on Grouse Creek, where the grass was high as a horse's back and huckleberries grew by the bushel. The next day we laid over and took a scout out around the side of old Mt. Pitt, east of camp, but failed to find any sign of the Club Foot Bear.

I told Temp that probably he was taking it easy and it would be three or four days before he would get back to his old range probably. As there were lots of huckleberries on the hill east of camp, we concluded to give the bear a round-up for a few days, and then go on one and make another camp near where the old Club Foot ranged. So next morning we were off bright and early. I took Trailer with me, and took a route nearly northeast from camp, and Temp went nearly east, which would put him on the lower side of the hill from me, as we thought that would be the best thing to do in case Trailer should start a bear. The country was covered with open pine timber, with scattering brush all through it, and was an ideal place for deer. I had not gone more than two miles from camp when out jumped two big bucks within forty steps of me and bounded off through the timber. The Winchester came to my shoulder in double quick time, and catching a bead behind the shoulder of the one

that was in the lead, I pumped away and had the satisfaction of seeing him spring high in the air, run a few yards and fall. This disconcerted the other one, and after running a short distance he stopped to look back. This was easy, as it was only about seventy-five yards. I caught the head and fired, and down he went with a bullet a little high behind the shoulder. One was a sixpronged buck and the other nine on one and ten on the other. I dressed them, hung them up as best I could and started on and had gone no more than half a mile when Trailer struck a bear track that was fresh, and away he went, yelping at every jump. I followed slowly along, thinking perhaps he would overtake and tree it near where Temp was, as it went in that direction.

I COULD hear him going, going, for quite a while, and finally he passed over a ridge and out of hearing. I stood still and listened a while, and then started on down in that direction. All of a sudden I heard him again, this time coming back towards me. I got up on a log now and waited. I could hear him coming nearer, nearer, all the time, and in a minute I saw the bear coming just as straight as a line right to me. When he got up to within one hundred yards, Trailer had got near enough so that he was in sight of him. Now he quit barking and came on like the wind to overtake him. It was a pretty sight to see them come. The big black fellow lumbering along straight to his doom, as he was close enough now so that I could fill him full of bullets before it would be possible for him to get away especially with a dog behind him that had never failed to get his game, and was gaining on him at every jump. On he came and as he got so

closer I held my gun on him ready to pull the trigger if he ever made a turn. But he did not know that I was there and just as he got up and was pausing within ten steps of me Trailer overtook him, and, making a lunge, caught him by the ham and give him a yank. Around he went, and struck viciously at Trailer, but the dog let go and got out of the way. The bear turned to go, and Trailer came full tilt to get him again. Just then I fired and he sunk right down in his tracks. Trailer was coming so fast that he lit on top of the bear's back, and grabbing hold, commenced to shake at him, but old Buin was done for and the scrap was over.

But another was coming which I little dreamed of when I was dressing this bear, which did not take long. I picked up my gun and started down the slope thinking that perhaps I would run across Temp down in that direction. In this I was not mistaken, for I had not gone more than a mile when, bang, went a gun off to my right. I threw up the horn which I always carried and gave it a toot, and I heard Temp hollering for me to come. I sent Trailer and followed up as fast as I could, and when I got there I found Trailer and Temp at the foot of a big fir; upon looking up the tree I saw two cub bears, one about half way up, and the other away near the top. He told me that he had shot at the old one and missed, and she had run off leaving the cubs. I asked him what kind of a bear it was, and he said she was a big brown one. He was awfully excited and was in for shooting them out without any ceremony; but I cautioned him not to be in a hurry, for I knew that in his present excitement he couldn't hit a barn door. So he waited a while but finally got so

eager to shoot that I told him to go ahead.

But I warned him—"Let me tell you something, Temp. If you make a bad shot on them cubs and cause one of them to squall we will have a fight on our hands just as sure. For the old one will come just as sure as she hears."

He said he didn't care; he wanted to kill them. He had never killed a bear in his life.

"All right," I said. "Go to it."

He pulled up to shoot, and I saw he was shaking like a leaf, so I said, "Hold on, Temp. Wait until you get over that." But he paid no attention and bang, went his gun, and the cub commenced to squall. I called to him to look out, and ran over to a tree about thirty steps away, and stopped with my gun ready. We did not have long to wait, for she came sure enough, and like a cyclone. Trailer met her just as she dashed into the opening, straight for Temp. She passed the dog, but he was too quick for her, and sprang at her, seized her by the ham, swinging her clear around, and let go to get out of her way. Just then I shot, striking her in the shoulder, breaking it. By this time Temp had got turned around and got his gun into action, putting a bullet through her body. Trailer kept working on her hams, and we kept pouring the bullets into her until she rolled over. Temp now had only four cartridges left, and commenced to shoot at the cubs, but missed every time. I was going to shoot them out then, but he begged me to let him have my gun, as he had never killed a bear. So I gave him my gun, and after shooting eight times he brought them down at last and was happy.

We now had four bear and two bucks on our hands, so we had a job of packing in the next morning. During this time



As he strides through his native woods, Bruin's leisurely lumbering gait is not without a certain regal dignity

Temp killed a five point buck and it took all that day to get them in and skin them and two days more to get the meat jerked so we could handle it. Then we sacked it and hung it in trees where it would be safe until we came back, for we were on the trail of the Club Foot Bear, and were bound to give him a round before we quit.

WE broke camp the next morning and landed at Four Mile Lake at noon. There we met with two hunters who told us they had just come through from the head of Red Blanket and had seen elk signs near Summit Springs as they came along, but being short on provisions, they did not stop to hunt them up. This set Temp wild as he had never seen an elk, and as this was in the vicinity of where the Club Foot Bear ranged, it was just what we were looking for. So after dinner we set out, and after traveling a few hours we came to a nice place where the grass was high as the backs of our horses, and nice running water; an ideal place to camp, under a large spreading maple tree. We spent the balance of the day fixing up the camp, as we did not know how long we would be there; for we were in a country where big game abounded, and where seldom a white man had ever trod. So we intended to make the most of it while we were there.

I told Temp we would start out in the morning and go in different directions to size up the country and get an idea of how the ground lay; for it might be of great benefit to us in case we had to follow a bear that would not climb. So next morning I struck out through the timber in a northwest direction and Temp bore off about north or northeast.

I hiked along through a level timbered country for perhaps two miles, when suddenly I came to a small prairie of perhaps four or five acres, and on the opposite side the hills showed up and the timber was scattering, with thick patches of buck horn brush. I had seen a number of deer tracks as I came along, but had seen no game that was worth shooting at, so I made up my mind that I would go across the prairie and take up the mountain on the other side. So I started out and as soon as I got in the open ground I began to see elk tracks. Before I got to the other side of the opening I saw great holes pawed out where they had been lying and big trails leading out into the timber. I followed one of these trails for about two hundred yards, when all at once I saw where a big band of elk had come in to the trail and gone on up the hill. It was no trouble to follow them, so I hurried on after them, feeling sure they were making for some high ground on account of flies, which were very bad in the open prairie. I could tell by the tracks that they were taking it easy, as now and then they would nearly all be out of the trail feeding on browse; but it would not be long until they were back in the trail, and going again. Finally the trail led me out of the timber on to a ridge that was covered with low buckhorn brush. I followed up this ridge for probably a mile, then they turned down around the side of the hill and crossed a deep gulch

and on over the next ridge. As I approached the top I was very cautious, and stood and looked a long time, but there was not an elk anywhere to be seen.



There stood an immense bull elk

INOW went on across this gulch and climbed up to the top of the next ridge.

Here they had scattered around some and worked along up the ridge for a short distance and turned down again. In front of me the brush was high so I could not see across on the opposite side, so I kept on up for sixty or seventy-five yards to where the short buck brush was, and, upon looking over, there on the opposite side just above the edge the thick brush stood an immense bull elk, not over one hundred yards from where I stood, and not another elk in sight.

Say, believe me, that was a sight that made my heart leap for joy, for in those days I was a dead shot and did not have a thought that he could get away. He held his head straight up with his big horns back astride of his shoulders, and they were big ones too. If you will believe me, there were seven on one and eight on the other. I thought to myself, as I thought a great many times when my dogs were fighting a bear, how many there were who would give a thousand dollars to stand where I stood and have the chance that I did to kill that elk—it would have been worth the money.

It was a big mark, but I drew my bead

carefully behind the shoulder and pulled. At the crack of the gun he lunged forward. The Winchester cracked again and another bullet went crashing through him; but it was not really necessary. The first had done its work, passing square through the butt of the heart, and he reeled and fell, never to rise again. But down below the brush was thrashing and crashing, and the whole band was tearing down the canyon toward the timber at a tremendous rate.

I ran down a few yards and got sight of one of the hind ones, and bringing the gun to my shoulder I caught a bead and fired. The elk was out of sight in little or no time, but when I went down I found blood. I followed up and after a while it left the bunch and took off to itself, and I concluded to go back and take care of the one I had. It was a big job to take his entrails out and get him in shape, but I got through with in due time and started to camp. It was a long hike and the sun was down before I got half way. I was hurrying to get to camp when I suddenly heard the long lonesome howl of a big gray wolf. I listened a minute and not hearing an answering howl I hurried on again. In a few minutes I heard him again and far back. I was sure now that he was following me, as my shoes had gotten bloody from the elk. I began to study what to do, for I knew if he followed along like that others might fall in, and it would place me in a dangerous position, as the only chance would be to climb. I was thinking fast as I hiked along when I happened to look out to one side and saw a large tree that had fallen, and the point lay the way I was going. I hurried and went a little past the top, then ran back and walked back to the butt of the tree, which lay high off from the grounded and waited.

I looked to see that the cartridges were in the barrel and, dropping the muzzle of the gun, I stood ready with my thumb on the lock and my finger on the trigger. I did not have to wait long for he soon came in sight, a long, lanky fellow, trotting slowly along, and every few yards would stop and stick his nose in the air and give a long mournful howl, then he would listen, but no answer came. I was listening too. Then on he would come. I could have shot him, but did not want to take any chances on missing him, for he had to pass in thirty steps if he stuck to my tracks. Closer and closer he came, and when within fifty yards I could hardly resist the temptation to shoot, but smothered it and waited. Now he was in forty yards and stopped. He did not howl this time, but stood a few seconds and listened, then came on. Just as he got opposite me he stopped and sitting back on his haunches gave one of the most dismal, hair-raising howls I believe I ever heard. While his nose was in the air I brought the gun up and drew a fine bead on his head; and just as he started up, while the sound was still reverberating through the woods, I pressed the trigger. The bullet caught him just at the butt of the ear and over he went with feet straight in the air for a few seconds, then commenced to kick around lively for a while and straightened out dead.



A western bear hunt seen through the eyes of an Oriental artist—note the faithfulness of minute detail

I WENT over and took a look at him, and lit out for camp, arriving a little bit after dark, tired and hungry. Temp had been there quite a while and had supper ready, but was very much excited. He had run across the track of the Club Foot Bear and was so eager to tell me all about it that did not think to ask me if I had killed anything. So while we ate he told me how he had been traveling through the woods and came to a prairie covered with high grass, and near the middle he ran onto a spring or hole of water, and there had been a bear there only a short time before, as the water was still muddy. When he went on out he left a trail of water and mud for a short distance, and then Temp could see his track plain, and it was sure enough the track of old Club Foot. Right there and then Temp turned back as he had no desire to come in contact with a grizzly, for he had heard they were ferocious beasts and would fight at the drop of a hat. I told him this was a fact as I had tried them, but that is another story.

He was right in for starting out the next morning. But I told him we couldn't do that as I had another job on hand. He wanted to know what it was, and was astonished when I told him about killing the elk and wolf and wounding another elk. I told him we would take the horses and dogs and go to where the big buck was, and leave the horses and take the track of the wounded elk and follow it

up. This suited Temp fine, for he stood as good a chance to get a shot in as I did.

In the morning we saddled up, taking five head of horses and arrived about nine o'clock where the big elk lay. We tied our horses up and took up the trail of the elk. When the dogs smelled the blood they were eager to go, but I wasn't ready yet. I had Temp put a string on Ranger and keep him back, then I let Trailer slow track the elk for a long way across gulches and over ridges and finally we came to where he had been lying down, but was up and gone. We followed to the top of a ridge and upon looking down discovered that the gulch was very brushy, so I decided to let the dogs go; but before I did so I sent Temp back down the ridge with orders to shoot like the dickens if it came his way. I waited so as to give him plenty of time to get there, then I slipped the rope off Ranger's neck and told them to go. And away they went down into the head of the gulch, and I heard the brush begin to crash, and away went the elk down the mountain side, and both dogs right after it, yelping at every jump.

Temp heard them coming and was on the alert. He did not have long to wait as the elk soon came by on the opposite side of the gulch, and old Temp began to string bullets after it, and as luck would have it hit it once so that the dogs soon overtook it and then the fight commenced.

I ran down the hill as fast as I could

and overtaking Temp we hurried on down and soon came in sight. And such a sight! To see two of the finest trained bear dogs, almost, on earth, fighting a wounded elk. It was simply wonderful the way those dogs would get around and seize it by the ham, and get out of the way of its hoofs. I will not try to describe it, but will say that after we had stood and watched them quite a while I told Temp to watch his chance and put a bullet behind its shoulder and end it, which he did, and the fight was over.

I sent Temp back after the horses while I skinned it and got it ready to pack. It was only a two year old and we packed it on two horses. When we got to the other one it took us quite a while to get it ready, but we finally got loaded and racked out for camp. We did not bother about the wolf and arrived at camp just about dark, hungry as wolves, and happy as clams.

TEMP wanted to start right out the next morning after old Club Foot, but I said, "No, we are going to cut this meat up and salt it tomorrow and let the dogs rest up, and the next day we will go." I told Temp if he thought we were going to have a picnic when the dogs got after old Club Foot he was badly mistaken, as I was sure he would put up a good fight and we would have to get a good ready on. Well, we stayed in camp all next day. Got the meat all

cut up and salted, and the next morning filled the Winchesters with cartridges, our pack sacks with grub and were off.

It took about an hour to get to the prairie where Temp had seen the sign and upon going out to the wallow we found he had been back. Trailer and Ranger took up the scent and were off pell mell after him, and the chase was on; out across the prairie and up the hill on the other side and over the hill and out of hearing. We hiked out for high ground, and when we got up on top we could hear them away down below us, and we could tell by the sound of their voices that they had overtaken him, and the fight was raging fast and furious. I told Temp to go straight down the ridge until he got entirely below them and wait. Temp lit out on a run, and after waiting a while I struck out and in probably twenty minutes I was close enough to shoot, but could not see them on account of

brush. I kept moving up closer and closer when all at once I heard old Club Foot go crashing through the brush down the hill toward the creek. I ran now as fast as I could in hopes of getting to see them as they went up the hill on the opposite side, and sure enough up he came after stopping at the water a few minutes, with both dogs going after him savagely. First one would catch him by the ham, but as he swung round to deliver a blow the dog would let go and get out of the way, and the other dog would do the same. Now was the time for me to get in my work, and the Winchester began to crack. Once, twice, three times, down he went, and the dogs piled in on him. But he was up in no time and scattered them right and left. Just then I heard Temp's gun begin to crack and down the hill came bear, dogs and all, straight toward me. I began to pour the lead into him, as it was evident now that

he was going to try to get to me. I called to Temp to give it to him, and as he was above him he could do good execution. But down in the creek he came, and as he climbed the bank I commenced to put bullets into his breast, and he rolled back and began to chew the bushes, and soon rolled over dead.

TEMP was literally wild with delight and hugged first one dog and then the other, declaring over and over that they were the best on earth. All we could do now was to take the hide and head of the bear, which we proceeded to do, leaving the feet on the hide to show that it was really the Club Foot Bear.

This wound up our hunt, and I will say to the reader if you wish to see some of the teeth out of the mouth of old Club Foot, and also the horns of the elk, come to my house near Kerby in Southern Oregon, and I will show them to you.

HUNTING THE WILD PIG IN ARIZONA

SO GREAT IS THE SPORT OF ITS PURSUIT THAT THE AMERICAN PECCARY OR WILD PIG SHOULD HAVE LEGAL PROTECTION AS A GAME ANIMAL

By J. G. BROWN

HOW good it feels after a week at the desk to don khaki, shoulder the old rifle, shake off all cares and worries, and trudge over mesa and foothill where both animal and plant life are alike untamed! What a blessing to have game to hunt! And how little is the blessing appreciated! These thoughts and many more surged through the mind of the writer as he traveled swiftly over a mountain road early one morning recently on the way to a pig hunt. The January air was crisp and exhilarating, the road smooth, the machine running like a clock, and everything conducive to high spirits. In front the mountains loomed indistinctly through the purple morning haze; in the rear the sun, although not yet risen, tinged the very crests of the ranges with a golden halo. Out of the town a short distance a Mexican wood hauler was just breaking camp by the roadside. The coals were still glowing where he had boiled his coffee before harnessing his patient little team of burros. Farther on, the machine passed two blanketed Indians jogging along in a dilapidated buggy drawn by a more dilapidated horse, the brave sitting "humped up" on the seat and his squaw crouching directly behind him in the bed of the rig. Rabbits, both jack and cottontail, hopped across the road from the foothills on the left toward the valley on the right, on their way for a morning sip at the creek and a sly feed in some farmer's barley field. Still farther on a bevy of quail ran swiftly in the same direction.

Before we realized it we passed Nine-Mile Water Hole and entered the pass in the Tucson Mountains. A sharp turn to the north, a half mile over the dry bed of the Santa Cruz, a short ride

through barley fields just turning green, and we were on the mesa road leading to our destination, Burro Canyon in the Tortillita Mountains.

The road over which we traveled was crossed by numerous sandy washes where the machine cut down and then stopped, necessitating a little shoulder work on the part of the hunters, until the driver bethought himself of the skid chains, when things went along smoother. How an eastern hunter would have enjoyed that road through giant cactus and mesquite and palo verde parks, with rabbits and quail scurrying to cover, and occasional long-tailed road runners speeding across the way! Vander got in some revolver practise, but did little more than scare the jackrabbits into rigid immobility, or into wild, cavorting leaps. Five miles of this country brought the party into the foot hills. Here the chollas cactus plants with silvery, glistening, densely-clustered spines formed small, dwarf-forestlike patches in the more level spots; mesquite and palo verde became more frequent and larger in the arroyos, and the giant cactus extended out over the foot hills.

ONCE during the conversation one of the men noticed a movement behind a clump of brush that was so unlike that of rabbits or young cattle or any of the other foothill life, that he remarked its occurrence; but he had just caught the movement out of the tail of his eye, nothing more was seen, and it was soon forgotten. Shortly afterward the road dropped down into a broad wash and the party realized that the Canyon was not far away. The wash was like the dry bed of a river with banks five or six feet high. Here and there were large, green-trunked palo verde trees

growing in the moist soil of the wash, whose banks were lined with a dense patchy growth of cat's claw, mesquite, and prickly pear. Suddenly at a distance of fifteen or twenty rods ahead a grayish-black object crossed the wash at a lumbering gallop, followed by another, and still another. Commotion reigned in the car. Wade, who was sitting with Rob in the front seat, was steadying a large canteen of water between his feet, and now his feet were entangled in the carrying strap delaying both men in their endeavors to get out. Vander, dressed in a long overcoat, was riding with his feet underneath a good-sized box of "grub," while the writer, likewise appalled, was held down by a suitcase containing a field camera and some canned goods. In the general scramble Wade reached terra firma first and got one shot as the last pig, number seven, crossed the wash and disappeared with the rest of the herd in the brush. The machine was now abandoned and the hunt began, but the herd had disappeared as completely as if the earth had swallowed it up. The tracks could be followed for a short distance, but they finally became indistinguishable in a maze of burro and cattle tracks. So the party returned to the machine to recover breath, eat lunch, and make plans for the remainder of the day.

AFTER lunch, which by the way, was rather abbreviated, Vander and Wade took the east side of the wash and proceeded away from the mountains in the direction from which we had approached, for we believed that the movement seen in the bushes before the wash was reached on the way out had been made by pigs that belonged to the same herd. Rob and the writer

took the west side of the wash with the hope of starting the vanished herd. In attempting to follow the tracks the latter became separated after circling toward the mountains, and the writer decided that Rob, and probably the other men also, were by this time tramping up the canyon; therefore he hurried along about fifty feet above the canyon bed on its sloping wall. A herd of wild burros that had been watching his movements from a distance and listening intently with long ears erect, scampered precipitately down into the wash followed by an avalanche of rock and gravel. None of the party was in sight and he thought that the chances of getting a shot at a pig were slim, for the others would alarm any game that happened to be ahead. Suddenly a shot rang out a half mile ahead, apparently just around a curve in the canyon. This confirmed the writer's fears. However he determined to keep a sharp lookout, and accordingly mounted a high rock nearby. Shortly after the third shot broke the quiet an object with that telltale lumbering gallop came into sight far in the distance, backed into a clump of bushes, and turned its head in the direction of the alarming sound exactly like a barnyard hog. Adjusting the sights carefully the writer let go at the tusker. With the report of the rifle the pig bounded forward and galloped wildly out of sight. Although there were small hopes of seeing the brute again a fresh cartridge was pumped into the chamber ready for a second shot if he should enter an open space between the clumps of cat's claw. After a few seconds the pig reappeared as suddenly as he had disappeared, this time about two hundred yards distant. Just on the bank of a narrow wash he paused, and the writer blazed away again for a spot just back of the pig's head. The instant the rifle cracked the pig lunged forward into an

impenetrable thicket of thornbush containing heaps of driftwood carried down by freshets, and much to the disappointment of the hunter, failed to emerge. One of the most disturbing things that can happen to the writer is to have reason to think that an animal has been wounded and left, but although an hour was spent in search the boar was not to be located.

In the meantime excited shouts farther up the canyon told of bagged game. Some one shouted "Two pigs: a young sow and a yearling boar." "Who got them?" "Wade." "Might have known," was the comment. "The greenest hunter always has the luck." But the comments were in fun. A part of the hunter's task remained however, that was anything but fun, for two of the party especially. The game must be dressed and carried into camp. Now the American wild pig is really a peccary, and you realize the difference at once when you begin dressing operations. As one of the party remarked, a peccary seems to be second cousin to a skunk until the scent bag is removed. This interesting piece of anatomy is located on the back about a fourth of the distance from rump to head. It is about three or four inches long, oval in outline, and has an aperture near the center in the end of a small, wart-like elevation. The bag is removed easily by cutting the hide around it, and until this is done the strain on the olfactory nerves of the operator is certainly anything but mild. While the writer attended to the yearling Wade attacked the young pig. Much to the amusement of the party he had quietly plugged his nostrils with some cotton, and protected in this way he proceeded to remove scent bag and entrails. Thus lightened, the game was hung on a palo verde pole and carried slowly into camp by two of the men, while the others hurried on ahead in or-

der to have coffee ready. And maybe that coffee didn't taste good!

At supper Wade told how he had discovered the herd. He had become separated from his hunting partner and had finally posted himself on a large rock. From this vantage point he saw the herd down below him rooting up something in the valley below. The something proved to be the large brown roots of canaigre, a *Rumex* somewhat like the yellow dock of the north. His first shots had killed the young pig, but the boar was considerably harder to get.

IN conclusion it may be said that the wild pig or peccary of Arizona, New Mexico and Texas ranges southward into Central America. Its color is dark grey with a lighter, band-like streak over the shoulders. It is about three feet long. An interesting deviation from pig characteristics is the birth of but two young to a litter. Books state that the collared peccary seldom lives in herds, but hunters tell of seeing a hundred or more together in the mountains of northern Mexico. When cornered, or when one of the herd is wounded, the peccary becomes dangerous. Many stories are told of fatal attacks on hunters, and quite recently in the region visited on the hunt just described a drove treed a hunter and kept him aloft until he decimated its numbers with his magazine rifle. During the winter and early spring the peccary is to be found in washes in the foothills where it finds an abundance of canaigre and other roots; during the remainder of the year its habitat is at a higher elevation. The flesh of young peccary is much like veal. In the judgment of the writer this animal should be protected throughout that part of its range which lies within the United States by a closed season during its breeding time and a limit to the number that may be killed in one season.



The wild pigs were slung on a palo verde pole and carried slowly into camp, where the camera was brought into play

NIGHT SHINING AMID FLORIDA SWAMPS

MOLLY COTTONTAIL LIGHTS UP WONDERFULLY AT DUSK AND COONS BECOME BELLIGERANT, BUT THE WISE OLD 'GATOR IS ONLY A PINK DIAMOND IN THE BEAM

By THOMAS TRAVIS, CHAPLAIN, A. E. F.

IF you have ever ridden through a forest of giant fern and palms lit by the search-light of a quiet, purring machine that slid along a winding lonely road where the wild game lay revealed, you will at once feel what night shining in the Florida wilderness is like. If you have not ever done this, then I despair of ever making you feel the amazing beauty and joy and thrill of it. Recall a trip up the Hudson by moonlight, with the searchlights of the boat playing over forest-clad hills and shimmering streams, picking up a quiet cottage here or a strolling couple there. Recall the halo of light boring with picturesque and mysterious beauty into the night-life, with the silent moths fluttering through the beam, or a skimming bird leaping startled as the glow smites him. Substitute for these more common objects, strange, fairy-like palms woven with vines, long-leaved pines through which the light bores in a golden mist, strange flowers, gorgeous butterflies, forests hanging thick-coated with orchids; and, instead of quiet houses and strolling couples, put into the scene bristling racoons, a sly possum, great ibis and buzzards, whooping cranes, or lurking alligators, and you have some idea of what nightshining in Floridian forests and prairie is like.

It took us some time to arrange, but at last we found an old hunter who had the necessary apparatus and the intimate knowledge of the country which night trips involve. Also, we started out modestly to shine rabbits first, till we had caught the trick. It was all new to us. But we soon had the knack, and with a carbide lamp fitting to the head like a miner's lamp so that every move we made put the light just where we could see, started out, with instructions to look not for rabbits, but for little pinkish-green eye-glints.

WE set forth long before dusk, to get into the right ground by dark. And one of the prettiest sights I have ever seen was one right on the way we took. Along the log road ran a dry ditch, and here, not two hundred yards from the negro cabins of the "box choppers," we came across a covey of some twenty-five quail, bunched, and running slowly along the ditch, for all the world like cunning brown broilers, picking grubs and flies as they went, till we were within fifteen feet of them, when they



Vines and long streamers of moss hang from the palms

rose with a whirr and went skimming off to the palms in a grouping that would make any hunter's eyes dance with delight. We did not try to shoot them.

Further along, and while it was still light, we came across a skunk, Lem standing in the sparse grass of a little clearing. It was interesting to watch the setter work Mr. Skunk, for his black and white nubs seemed in no way concerned about our nearness, or in any hurry to escape. He ambled along with the cocksureness of a two-gun man who knows he is heavily armed and knows that you know it too. But when a shot from a twenty-two pistol went "bump," just ahead of his nose, he gave one startled jump, and slid under a long pine log.

Lem cocked his eye at us, to see if we really thought we wanted such a smelly beast, and when he saw we did, he got busy in a most businesslike way. No panic or yelping at all, and no excitement. First he ran to the end of the log, tilted a little, and peering under located from that direction just where pussy was. Then he made a short detour, and came to the off side of the log, repeated his glance under, and jumped the log to our side. Then with one swift dip he sneaked Mr. Skunk out by the back of the neck, gave him one swift shake, and dropped him dazed a dozen feet away, where we quickly shot him between the eyes. It was all over in much less time than it takes to read this. And a more business-like action on the part of a dog I have rarely seen. There was not a single wasted move. And wise old Lem, the Florida Cracker, just did the trick—so. Just like that!

Now I was telling this to an old skunk hunter up North here, and he asked if we got scented. I replied "No, not in the

least." "Well," said he, "I have caught hundreds of skunks, man and boy, and I have caught them with traps, shot them, and never yet got a skunk without being more or less scented. I used to wear not a rag of my ordinary clothes. I changed every stitch and had just one old suit to skunk in. And I never yet got a skunk without scenting."

Well, we got three of them, all three put up and stood by the pointers, and we never got scented at all. We did not even mind the skinning, which in two cases was done right away, and in the other, when we got home. We just skinned them, put the skin in a can with a tight lid, washed our hands in the

ditch with sand for soap, and smelled nothing more than a faint skunk smell.

"Um," said the old chap, "I don't understand that at all. It may be the dogs standing there had something to do with it; or it may be a Florida skunk is different, or it may be your scent centers were paralyzed by the musk. For that sometimes happens. But anyhow, I never got a skunk without considerable scenting."

Will some old veteran tell me his experience? I say we got three and no particularly unpleasant scenting. I put one of them in a palm tree, intending to leave it there till I came back. But in less than thirty seconds the buzzards were after it, and I had to drive them away to save the pelt. I could smell it plainly down wind at fifty yards. But neither the dogs nor the men were scented, and with one of the skunks, Robin Hood, the liver-and-white pointer, had a running scrap. Robin headed the skunk from its hole. It raised its tail and rushed at him. Robin ran back, and as the skunk started again for its hole, the dog headed him off again. And so on, give and take for five minutes, while I watched to see what would happen. Robin had never to my knowledge seen a skunk before, so it could not have been masterly handling like Lem's that prevented him getting "His'n." However, such are the facts, and I'd like an explanation from anybody who has one.

SO, to the shining. For the dark drew on suddenly, and we lit the lamps. The stars were shining brilliantly up in a dark, blue tropic sky. The soft fragrance of orange blossoms spread on the warm, balmy air. And a low mist began to gather in the clearings. Where the lights shone on a palm grove, with

its trailing vines and carved boles hung with orchids, the sight was like some tropic opera scene. It would not have surprised us one bit to see a group of dancing fairies come swinging through the froned avenues to the music of wild drums, and the trampling of elephants or tigers. Imagination runs wild in the midst of such romantic surroundings and the impossible becomes the expected.

As it was, however, the game was much more prosaic, we were to practice on rabbits in the early part of the night. And let me say right here, that though I am fairly familiar with Molly Cottontail, I never saw her quite so alluringly lit up as that night. In the first place those out of line of the beam could see nothing. Here and there sparkled tiny green lights like glow worms or fireflies. But always the guide, grunting, "Spiders," passed on. Till at last he paused,—and pointed out a rabbit,—two pinkish green glimmers, that lay still and glowed.

"Aim right between them," said he, passing the twenty-two rifle. And in sheer faith I aimed and pulled.

Up in the air bounded a rabbit, to fall again with a thump. The first shot chanced to be a success, as indeed all the rest were; for rarely was the target more than fifteen feet away, though in some cases it was just a drifting shadow pausing for an instant e'er it melted among the palmettos and was lost to view in the darkness whence it came.

After a few trials I found I could actually see the rabbit itself. Sometimes head on, when the two eyes were visible, surrounded by a halo of soft fluff, as the light picked up Molly sitting there in the thin grass. Sometimes it was only one eye, with the shadow bunny sitting back to us with its head turned to watch. Again, it was a lengthwise target, Molly stretched out like a cat, with her hind feet out straight behind her, ears cocked, and nose twitching as she calmly watched the light. At every shot of the rifle, it seemed as if Molly just sneezed violently, jammed her nose down, and bounced in the air, so swiftly did those little bullets do their work.

So, seeking out the little meadows or clearings among pine and palm, where only dry buffalo grass grew sparsely, we worked our way to the edge of the forests, and the line of prairie. And always as we went, the twinkling eyes, Molly sitting in her form, or hopping like a shadow among the deserted orange groves.

Soon we had enough for our needs, so after that it was sheer fun to see how close we could get before Molly jumped. Often we could get within five feet, but at the least noise, you saw a fleeting shadow of fluffy fur bounding away with magic silence, the white spot jumping and bobbing away across the clearings, as you unconsciously followed the course by the gleam of the headlight. Perhaps the lady rabbit thoroughly enjoyed her short career in the limelight.

It was at this time that the old trapper headed us for the "Coon" grounds.

Out on the prairie were little shallow swamps, most of them scarcely a foot deep at the worst, and many of them mere damp spots where frogs and other swamp creatures gathered. Also there was a peculiar land crab, different from our fiddler, because this was not salt water. They burrowed in the sand and cast up a ridge of white under-layer sand for all the world like a big worm cast on the golf course. And all about these ponds were regular paths filled with coon tracks.

It was these ponds we circled, shining the lights through the sparse grass and reeds; and it was here we picked up our first 'coon. Also, let me say right here, 'coon shining is a different proposition from luring Molly Cottontail. Mr. Coon, even here in the wilds, is exceedingly all there. We would pick up a pair of eyes, and you could at once tell the difference by the color. The 'coon eyes were green, decidedly electric green, and were either farther apart or seemed so, than the bunny's. Also, when you shined a 'coon it did not follow that you got the hide—not by a long shot. Just one glimpse, and then they faded out into nothingness—a faint splash, or quiet "Plop" in the mud as the case might be, and Mr. Coon was off and out of danger.

But at least I got a good sight of one, sitting up there with a frog in his paws, swabbing it around in the shallow water as though he were determined to wash its skin off. We could distinctly hear him before we shined him. And when the beam fell on him, he sat there in an attitude of mild curiosity and surprise, holding on to his frog as though to ask why we disturbed him at his supper. Also, this was too long a shot for a twenty-two in my hands, so I took the shotgun and swung on him just as he jumped. He was a medium-sized 'coon with the cunning face markings, but his tail was not so round and bushy as it seemed in the first flare of the beam.

Several other eyes we picked up, under the low brush and palms, always in moist ground or on the edge of swamps. But this was not at all like rabbit shining. Mr. 'Coon seemed, for all Uncle Remus says, considerably more wide awake and on to his job than Br'er Rabbit. One instant we got the eyes, shining weirdly above the weeds, the next, absolute blank, with no sound or rustle to tell us where he had gone. It was surprising to a degree to experience this fact, that the 'coon could get away without any of us seeing more than a single good shine of his iridescent green eyes.

At last we caught one fair and square in the open, on a sand spit at the edge of an irrigation ditch. And it chanced that some of us were on one side and some on the other. So Mr. 'Coon ran along the ditch and made for a clump of live oak and palms.

After him we raced, as fast as one can over a rough prairie in the dark, and to his undoing he took to the trees. If there was no hole there in the massive live oaks, he was ours sure, for the clump did not cover more than a quarter acre, and we had excellent lights. Also, we had let the dogs loose the moment he took to his legs.



The dogs work easily in the open clearings

I WISH it were possible to put right here a colored photo of that scene. I can only ask you to imagine a grove of tall palms and live oaks, with clean sand for the ground, with tall vines streaming down from the branches hung with orchids just coming to red bud. And the massive, gnarled oaks with long beards of Spanish moss waving in the cool breeze, and all of it lit by the search lights of brilliant carbide. Picture the dogs leaping frantically at the bole of the tallest tree, whose top, streaming with moss beards, lifted itself far above the palms to the star spangled sky, and you have the scene—all except the 'coon. He was somewhere in that bearded giant top. But at last we located him, not far up either, but peering with queer, elflike face, and white fangs down on us from the crotch where a huge branch swept forth. In a moment the lights were all focused on him. But before we could get the guns to bear, he was



Nothing is more fascinating than Southern woods where sunlight steals through close tree trunks over masses of flowers

off again, up farther, till as we followed him on with the beams of light we saw him, a furry ball, up in the high branches, with eyes shining green and his hair on end, or so it seemed. He was a long shot where he was, and a hard one. But the old trapper winged him with a twenty-two rifle shot, and down he came crashing through the branches, to make one flying leap out in the dark, where we heard him land among the big fans of a cabbage palm, with a rattle like a cow tramping through dry fodder.

Now Robin Hood the pointer was having his first 'coon hunt, and evidently enjoying himself to the limit. He fairly screamed his delight in frantic barks and wild leaps up the tree trunk. He was sure to the tip of his tail that he wanted that 'coon till I shined the lights in the palm top at which Robin was barking. There was Mr. 'Coon, evidently not badly hurt either, and fighting mad; for far from trying to hide, he was coming down, snarling, almost spitting fury from his green eyes and bristling fur. And he came straight on down, till Robin gave one frightened gasp and ran.

I never saw a dog change his mind so quickly, and, indeed, I didn't blame him. I had always thought that 'coons were sort of sly, cunning, peaceful citizens till I saw this old he come down after the dog. Also I love my old pointer, and didn't want him to tackle the beast. To tell the plain truth, I was scared some too; for he came right down on my side, and with no shadow of flinching, spitting fire from his green eyes, and looking huge in the carbide light. So I let go swiftly, one barrel after the other, with my shotgun, and Mr. 'Coon dropped dead. . . . Then I felt sorry to down a valiant soul like that by sheer brutal machinery. He ought to have had the privilege of dying like a warrior—in hot clinch with the dogs. I am convinced that he would have made Liberty steak of old Robin; still, there are some things a sportsman hates to do, and I just hated to shoot that spitting ball of sheer pluck. But when I examined his teeth, and his muscular body, and his heavy fur, I realized that he was an easy champion over an inexperienced pointer, scarcely beyond his pup's age. I may add in explanation, that I have his hide now, and the old trapper declared it was the huskiest 'coon he had seen for many moons.

AFTER that, we didn't have much luck. And as it was getting late, we decided to make for home. You will remember that I mentioned the mist that gathered over the clearings. Well, it was here on the prairie just about head high, and I had an interesting argument with the old trapper, who declared he knew exactly where we were, and not only that, but knew every stick and tree about there. It is always interesting to match instinct with a testing machine, and I happened to have two, right in front of me, my pocket compass, and the north star.

"Which way is home?" I said.

"Right there," and the old trapper pointed northeast.

"Which way do you think is home?" I asked of our other friend.

"That way," and he pointed due west.

The old trapper scorned him. "Why, Boss," he said, "I tell you I know every bit of ground and tree and ditch here for miles. I've walked over them from 'kaint see' to 'kaint see,' and many a time at dark."

"Well, now," said I, "think out just where we ought to be, considering all our turnings and twistings, and tell me what direction by compass camp lies."

"Southwest," came the answer.

"And which way is southwest?"

"Right there," and the trapper still pointed northeast.

Even when the compass was held in the carbide gleam he still insisted he was right. Positively he knew by feeling just where he was. "But there is the north star, and by that you are pointing northeast as the way home."

It made no difference, he clung to his statement. And I could not but agree with him so far as feeling was concerned. So we all sat down, smoked a pipe with our eyes shut, then got up and focussed on the north star, thus getting our sense of direction righted. And immediately, feeling agreed with star and compass, we went straight home. Again another illustration of the value of a compass in strange country.

IT was almost midnight when we rolled, dead tired, into our bunks. But next night we were over the prairie again, this time eight miles away, on the banks of a small river running through an unending swamp. Far as the eye could

reach from the height of the log road trestle, swamp. And such swamp—covered with growth and water hyacinth it looked solid. But Robin Hood found out it wasn't, for jumping right off the bank into it, he plumped through the dense growth and out of sight in black water. After that he stayed on undoubtedly solid ground.

As we stood there in the gathering dusk, bellowing like great frogs' voices came to us. In fact I thought they were frogs, till an old settler asked me if I'd seen the 'gators.

"No, not yet."

"Well, you hear them."

And then I realized that this froggy noise all around us was the sure enough bellowings of 'gators.

It would seem that any man would be able to recognize an alligator when he saw it, wouldn't it? Well, here is what happened to me. Right within sight of that trestle I waded into a shallow part of the swamp after some ducks. I downed one or two, and started in to retrieve them. Every once in a while as I stepped along in hip boots, a swirl like a giant bass makes, would go off right within a yard of me. And I mentally registered a purpose to come in here fishing. With my eye lifted for an instant from the dead duck, floating on the weeds, I turned back to it. It had gone. The same thing happened to the second one. And in two hundred yards of that slow tramp through the shallow swamp over a dozen such swirls went out from beneath my feet. It was only next day that I realized I had been unconsciously stepping among gar pike and 'gators. And here is how I found out. Cummings, the Veteran, and I were shooting duck in Indian Mound pond, a small lake right off this big swamp. And duck after duck, thus downed neatly, simply disappeared, without rhyme or visible reason. I was telling the camp boss about it, and he simply grunted, "'Gators."

Of course I was sceptical, but on my next trip to the pond I took particular notice. We downed two pair of ducks, and there they were floating crumpled on the surface. We retrieved the nearest one, and went on to the next in a slow-moving, heavy punt. The duck simply disappeared, and the third. Just as I came alongside of the fourth, the duck

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HUNTING COMPANIONS—AN APPRECIATION

YOUR OLD HUNTING CHUMS ARE AN ASSET YOU SHOULD CHERISH AND IF THEY PASS OUT OF YOUR LIFE YOU WILL [NOT EASILY REPLACE THEM

By WILLIAM BARBER HAYNES

DID you ever go fishing or hunting with a new acquaintance and notice how dead the trip was compared to one made with an old pal? Perhaps you didn't know why the trip fell below par. Surely the new friend did his best to be agreeable. Now what the trip lacked was reminiscence, the golden memories, that arise when old pal goes with old pal.

As the canoe swings around the point of the island it is fine to say "Jim do you remember that day, in the snow, when the bluebills decoyed like mad?"

Jim smiles because he can't help it and says, "Yes." "Remember how near we were to losing the point blind." "Just barely beat Matt to it after the wind swung out of the south to the west and made it good." Then for an hour you don't need to catch anything, or kill anything, as the mind's eye pictures the gray day whisking a little spit of snow along the ice fringed marsh, when this thing befell you and Jim.

There is the big bend of the channel that coils through our pet marsh. On rounding this point I would say to one companion, "I'd like to have a chance again, like we had here once on yellow-legs," and Bennie would grin and say, "You mean the day you couldn't shoot."

"The day I was leading them too far," I would answer. "You know a jacksnipe lead on a yellowleg isn't unhealthy for the big fellows. Anyway as I remember it, we ate yellowlegs a-plenty for supper."

To the curly headed chum I would delicately insinuate, that if a person would only lead a redhead just right, the big point blind would be a good place for high incomers. Whereas the curly headed one would again bid me rub it in, as I had only wiped his eyes that one time in ten years' trying.

To five different chums that one spot would inspire memories of triumphs through which it is good to live.

ALL through our lakes there are spots that inspire these treasures from memory. Bright spots, that lay along the road like wheat within the chaff and just by way of showing that the rose is not without its thorn, there are places that remind you of how much of a fool a duck hunter can be sometimes.

Three fellows I know, can remember how forty-two Canada geese fanned the air to rise over a fringe of oaks over our favorite bind when we, who know almost where they lit, had disposed ourselves elsewhere.

Often I have imagined the sensation of having been there at this right place with the geese only eighty feet overhead. I always do well at this, never getting less than five in imagination. Thus you see that time heals all wounds, and who will aver that the rose is not worth the thorn? Which leads me to remark that

your old hunting chums are an asset that you should cherish and if they pass out of your life you will never easily replace them. Congenial spirits are hard to find.

The chances are that the people you would like to replace them with have old chums themselves that they prefer to go with because of these very associations that you were not a party to.

So then you can listen to us three old chums talk, as I am broiling some snipe in the fireplace at the home camp.

"Time was when you thought I was crazy to try and broil a bird in a fire place. Remember how you kicked, when I tried it the first time on a bluebill, over at the point shanty. Awful fat bluebill he was, and the only one we had, on one of those off days. So I picked him, and broiled him on a stick over the coals."

"Trying to spoil a duck," says you; "but I went right ahead." When I put them on the table I said, "Guess I've spoil him all right," but the smell of that roast duck spoke richly of what was in store for us and I remember it to this day."

That bluebill was cooked Maryland style, a bit raw as to the center, but we went on record that he was the best duck we had ever tasted. Many a duck we have roasted in the fireplace and in an open fire since then.

"I like a duck that has lots of taste to him," ruminated Pardner.

"Take a fat ruddy duck now, he has as much more taste than other ducks as a big fall mushroom, broiled in butter, has over these little white rubber plugs they

call mushrooms and serve on steaks."

"This thing of bearing game home in triumph is a large part of the fun of going hunting."

"It's the natural thing to do. It's just what a savage would do."

"Once I saw a boy with two nice mallards. Proudly he held his ducks, waiting for the train, and smeared on his clothes was the yellow mud marks that said that he had crawled far across a soft cornfield in the getting.

"Several local hunters, less successful, awaited the train. I saw one of Akron's rich men edge close to the boy and begin talking business.

"Earnestly talked Mr. Rich Shooter. Earnestly the boy's head shook its negative answer.

"On the train I asked the unsuccessful tempter, 'Didn't he want to sell them?'"

"Naw, he didn't. I even at the finish offered him a \$10 bill for the pair and he wouldn't play. Said he was going to take them home and eat them. No wonder people die in the poor house when they turn down easy money like that."

"Mr. Moneybags had simply tried to thwart the natural law above outlined."

"Mr. ———," mused pardner. "He's that fat man, isn't he? A fat man is usually great on game and fish subsequent to its recrudescence on the table."

"To a sinewy type of man the pursuit is the thing. The chase and the playing of the game is the big item. 'Wait a bit, we will get another chance,' he says to the fat man, who responds, 'Aw, let's cut it out and go back to the shanty and cook up a feed.'

"To the fat man the result is the main tent, but the sinewy, or raw boned type of man, will snatch a bite and return to the chase."

"Well, then," said Pardner, "what sort of a fish course are you going to serve with that ruddy duck 'and mushrooms?'"

Whereat my mind roamed the coasts of our country. Before it flitted mental pictures. "In Seattle I would call for rock cod; in Boston I would suggest blue fish; on the upper Great Lakes the vote would run heavy to whitefish planked on birch slabs, while the epicure from the Gulf Coast would say 'Pompano.'

"The Philadelphian, being used to the fundamental error in construction of Delaware shad, would insist on having it, bones and all.

"But for me, having tasted them all. I pronounce a brook trout better than any; and there is only one better fish than a brook trout." Whereat we all three in unison exclaimed "Bluegills."

Yes, bluegills. Not the big, brawny bluegills of the Great Lakes, or the overgrown brand from the larger lakes, but the bluegill from the little sweet-water lakes that twinkle in the sunshine among

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Nothing cements friendship like camp life

A HOLIDAY HUNT FOR A TURKEY DINNER

INFRACTIONS OF TURKEY-HUNTING ETHICS ARE RARE EXCEPT AT CHRISTMAS TIME, WHEN A BIRD ON THE TABLE IS WORTH TWO AMONG THE TREE TOPS

By OSCEOLA

CHRISTMAS week was dull. Heavy rains had fallen for several days prior, making our flat woods very wet for tramping and we did not get out until the Saturday after Christmas. Even then we found the lower places in the road and much of the timbered river swamp afloat. About a week before Christmas we had been up the Wakulla river for a look at the birds and while we found some sign, the scratching was close down by the river and not very fresh and rather scarce. Maternal cares kept Fanny at home and Tom's dog was not entirely dependable so he and I concluded to hunt together unattended. I drew on my long wading boots and Tom went in old shoes as his boots leaked badly. Crossing Boggy Branch we found the creek over bank and quite deep. To save a detour I packed Tom and the two guns across, but soon after he was so wet that I announced "toting" was too much of a luxury for him and he splashed along, often well up to his knees in water. Going in towards the river we separated, agreeing to meet along a ridge a half-mile farther up. It was still dull, cloudy and foggy and I got astray and found myself close down by the river several times when I should have been much farther out in the woods.

There was no glimpse of the sun and our southern woods are not dependable to steer a course by the moss. I found plenty of old sign but no show of recent visits from the big birds.

The woods were unusually quiet; I saw one or two squirrels—a Phoebe swinging her tail derisively. A crow cawed away up in the woods and far down the river an occasional shot was heard, some one after ducks I judged.

Along the river and in the low wet stretches the cypress trees hung in myriads of short brown tassels. Flowering in December seemed rather early but evidently the abundance of warm rain had started them. I could see no other evidence of fresh plant growth.

I FINALLY managed to get out from the river although it seemed to require quite an effort of will power to force myself from that section. While I knew perfectly well my general position, it seemed that the tendency was to keep in touch with a known landmark rather than risk wandering in a big river swamp and doubtless soon get entirely bewildered, as has frequently happened right where I was then hunting under similar weather conditions. Presently I struck the dry ridge and following it up soon heard Tom's whistle and joined him.

He had also found plenty of sign but nothing real fresh. We ate our lunch



Tom had shot a fine big turkey hen

and again separated to meet if either fired, or if no game was found then to come together higher up where a road makes in towards the river.

I now went farther out from the river on somewhat higher ground and quickly found an abundance of fresh sign. Under some oaks the leaves were whirled and scattered as if by a rake and palmetto berries were evidently being sought most eagerly. In one place I wondered if I had not scared off the birds but could find no tracks in the mud of a nearby slough and felt sure none had flown away at my approach.

Within a half-hour of our separating I heard Tom's gun and found he was not over 200 yards from me, right out towards the river. I heard no thud of a falling bird, and after waiting two or three minutes for any stray turkeys to fly or run my way and seeing none, I worked over towards Tom's locality. Presently I heard him calling, perhaps 100 yards distant and quickly seeking shelter of a small cedar bush and two or three palmetto "fans" I laid low.

Tom continued calling for a half hour at brief intervals and then I found he had moved on. I followed and after two more stops when he moved and called I overtook him and found he had shot a fine big turkey hen. He said he had been making his way easy and decided

to try calling not really expecting any response, but as he too had found much real fresh sign he thought the birds might be near and he would get a response. His call bone proved choked and he stood up to hunt for another in his hip pocket when he saw a turkey fly down to the ground from a fallen tree-top about 75 yards distant. She must have had her back to him and may have heard his effort to call; at any rate, when he dropped to the ground and made a single call with the second bone she came around the tree-top in full view on a trot with head down and never stopped until he picked up his gun and dropped her at not over 30 yards. Of course I remonstrated at such unsportsman-like shooting, but Tom says he is too much of a "cracker" to wait for a bird to get up off the ground for when he hunts he wants the game. Now Tom is a fisherman all the year round and only hunts at odd times during the winter—at holiday times and between fishing trips—and a turkey now and then is a big help to a scanty larder with seven months to fill, so I couldn't bear down very hard on him for an infraction of hunting ethics. He had seen no other birds and we now returned to near where he had shot and called for some time but with no answer. Then we went nearer the river and called, on down the river and again out into the woods, frequently stopping for ten to fifteen minutes at a time for calling, and hoping to come up with the bunch; for we felt sure from seeing so much sign there was a good big bunch of birds in the neighborhood.

THE sun was getting well down the line of the tree trunks by this time and we decided we must give it up for the day and so worked off homeward through the heavy woods.

Live oaks and pines make up for the most part these heavy-timbered river swamps, with some sweet gum and other sorts of oaks in the dryer sections, cypress and tupelo close down by the river and along the streams, and cabbage palmetto trees scattered throughout the whole area but most abundant in the lower places. Not a great deal of thick undergrowth usually, but at intervals a lot of small cedars and small growth that make traveling uncomfortable; while on the higher, dryer parts great patches of scrub palmetto grow from two or three to six or eight feet high, often cutting off the view completely and compelling a detour.

Coming out towards a "bend" or opening that cut well down into the swamp,

(CONTINUED ON PAGE 40)

UP LOSSMAN'S RIVER

Part III.

The GULF RANGERS

By W. LIVINGSTON LARNED



MR. KING and His Party Continue Their Trip Along the Florida West Coast, Hunting and Fishing, as Occasion Permits. They Near the Egret Rookeries and Meet Up with Johnny Billy, the Seminole Brave, Who Escorts Them to Dr. Cypress Tiger's Abandoned Farm Up Lossman's River.

TARPON LAKE is a very famous body of water, for, while it is no more than four miles long and two wide, its placid six feet of wonderfully clear fishing ground is the abiding place of finny record-breakers. It is really a continuation of White Water Bay and is therefore tanged with salt. Shrewd ex-

ponents of the rod and reel revel in the marvels of this mystic lake, bordered on all sides by very beautiful natural scenery.

Since Harney River is the main southern outlet of the Everglades, the Gulfward trend brings with it much of the interior tropic grandeur. There is a flow, at times, of easily fifty feet per minute as the clear, fresh water runs to meet the salt. And, farther down, at the mouth of the Harney, with Shark River opposite, the mangroves separate into myriads of islands. During the stormy period, as Gulf hurricanes sweep madly up the two streams, these thicket isles are awash, the tide varying from three to four feet. It rises to six feet, under stress of wind and wave, whereupon the little shoals and island beaches, composed of marl, sluiced down by the endless wash of the rivers, are concealed from sight.

Tarpon Lake is tarpon paradise for fishermen. Monsters are caught there, and there are nearly always fishing crafts tucked away under the cool shadows of the mangroves. Our Gulf voyagers were fortunate in



visiting the place when it was deserted. Dawn found the calm waters unbroken by boat of any kind. Several ducks winged against the bright sky and a wood ibis stood sedately upon a fallen log. One lone heron, spotlessly white, flapped lazily past the camp.

During the night Mr. King had spread a net, for mosquitoes were bad, but of excitement there was none. The rest that was needed so badly was theirs, in all its serene fullness.

JOHN Jr. and Hendry decided to go on a short expedition out from camp in search of deer, while Mr. King made a scientific study of the country. It was just such a trip as the boy hungered for and the guide insisted that he could not live another day without venison. Indians had told him, said Hendry, that deer could be found in the vicinity of the Harney, and as the 'Glades were approached.

That it was a Sabbath morning may account for the ill fortune of the expedition. Some sportsmen are superstitious. Certain it is that Hendry, late that night, observed solemnly as he set about cooking supper: "No day for gun or fish hook. Deer in church."

The two of them, taking the glade boat, poled up the river and out of Tarpon, in the general direction of the 'Glades. Saw grass began to appear, and large areas of flat, marshy ground, dotted occasionally with tiny hammocks that were one solid mass of close-knit myrtle and cypress foliage.

Finally the boat was drawn up on the shore of a larger hammock and they alighted. For an hour Hendry did his best to stir up big game. They had come out from behind a cluster of trees, when lazy coils of smoke a half mile beyond attracted their attention. The guide was on the alert in a moment and seemed much perplexed.

"Indians?" queried John, his voice a bit tremulous.

Hendry shook his head.

"Woods on fire, then?" John persisted.

But again the guide shook his head. He made straight for that haze of dusty smoke, his misfit jaws clicking.

WHAT they found was an old negro in the act of drying or smoking venison, which was all new to John. The dirty flap of a tent had been poled up into place, both as a protection from the light breeze and a scoop for the smoke. From a sturdy cypress pole, stuck in the ground between the two outer supports, a fine carcass was suspended . . . the carcass of a buck. The wood fire nearby sent dull rolls of aromatic smoke over and into the meat—a process old in the 'Glades.

The negro confided that he had come, with three white hunters, from Lossman's River way, primarily after tarpon but the day previous, while reconnoitering out from the Lake, they had run upon deer. Three had been brought down, a fine old buck and two smaller specimens. His companions were down the Harney after gasoline. It was Hendry who explained to John that the venison was being "buccaned." Buccaneers of the old Spanish days in that territory probably were so called because they had smoked all meats, in order to preserve them. Florida guides still use the old Spanish term to describe an ancient process. An old box, half filled with camping equipment and a tin over the fire, in which coffee brewed, indicated that the sportsmen intended to try their hand at the new game for some days to come.



Hendry admitted that they could not go far enough to secure deer on their own, and after a final exchange of localisms with the negro, they retraced their steps, arriving at camp at eight o'clock. Every mile of the way interested John, who felt well repaid for the expedition. Thickets were alive with strange birds, and 'gators croaked along the shallow, murky waterways. Swarms of insects droned upon the heavy, steaming air.

Mr. King had filled several pages of his diary with interesting data. Having gone in the launch to the headwaters of the Harney, he was surprised to find



indications of oil on the surface. Eager for a discovery of this kind, he carried his investigations further, ferreting around alligator holes and small tributary streams, far back in the mangrove nests. Iron oxide, yes, but the "oil" proved to be only a mysterious result of decayed vegetable matter.

JOHN caught his first big tarpon a few hundred yards from shore, in the lake. Hendry helped him, for the fight lasted a vigorous half hour. It was a fish of which he well might be proud and Hendry assured him that he had equitted himself like a veteran while handling the rod.

"We must be getting on," advised Mr. King, "Lossman's River by night. On our way back we will have a day or so of tarpon fishing. Let's get the real work over first."

It was necessary to cross around into Shark River again, when the mouth of the Harney was reached, for the tanks must be filled with gasoline. This they secured at the Tannic Works dock. It was afternoon when they bore up the coast, taking it rather leisurely, as Hendry did not know the course. Four small rivers emptied into the gulf, and once they stopped near a sand bar for oysters. Such oysters, too!

Then came the broad vista of Rodger's River, opening in a boquet of hammocks: Lossman's Key, hugging the shore line, like some immense marine animal, with green back and yellow fins, and finally Lossman's River, that home of Florida enchantment, about which so little is really known. The *Mae* ran her nose up beneath another mangrove retreat, and Hendry built a fire on shore, over which venison was cooked. The rascal had saved this as a surprise, for the negro out from Tarpon Lake had given him several prime cuts, and Hendry had secreted it until this moment. He had said he could not live another day without venison . . . his life was saved.

MONDAY was destined to bring many exciting adventures. It was a fair day and a fine one, with the most delicate of ocean breezes blowing. It was necessary to secure information about Lossman's and navigating the river, for Mr. King had heard in advance that it was literally swarming with islands, treacherous shoals, narrows and blind alleys.

As day advanced, they could see a point not a half mile distant, around the bend, from where they had anchored, and there were unmistakable signs of habitation. It proved to be a bedraggled fishing post, populated by "low white trash" at the time engaged in the unlawful practice of salting mullet against the season. Despite rulings to the contrary, the fish were packed in barrels in salt and sent to Key West and this during the spawning season. Mr. King cautioned both Hendry and John Jr. to be very careful. Not a word must be said to excite suspicion. They must not appear curious. Mind-one's own business here was wisdom.

John Jr. thought only of fishing, he was at it both day and night, and never tired of the infinite variety and beauty of his catches



Mr. King discusses the game trails with an old friend at the Shark River dock. They are pointing to bird rookeries on the other side of the narrow stream

Years ago, Governor Catts ordered a cruiser to patrol this section and to see that the mullet were protected, but the patrol was eventually disbanded and now—now the dirty little sloops put in at the dirty little docks and tarpulin-covered hogsheads were spirited aboard in the night. The beaches were covered with nets, hanging out to dry. They resembled giant cob webs that had been spun during the night. A rather surly man answered such questions as were put to him, with frowning indifference that bespoke his inherent suspicion.

"What did they want up Lossman's River, anyhow?"

"Property to survey a long ways distant . . . it had nothing to do with this section of the country."

"How long did they intend to remain?"

"Only long enough to do the job . . . and right glad they would be to return to Miami . . . it was a thankless task. Who would ever want to farm up there on the outskirts of Big Cypress and the 'Glades?'"

"You'll have to watch yourself," was the final grunt, "only one good channel. Hard on boats. Only one side of the river navigable. Sand bars as thick as mosquitoes. So many mangrove islands that the man who found the river couldn't get out of it."

HENDRY, who had managed to talk in whispers to one of the fishermen, came back with the interesting information that contract labor was used and that when a chap thought he had enough of it and decided to leave, he was shot if he became too insistent.

The voyagers were beginning to sense the real character of the country.

On the opposite shore loomed another point, and Hendry was for zig-zagging across without delay. "I think get bananas and vegetables there," the guide suggested, "man tell me it no worked now . . . nobody there much. Garden. Pick some fresh grub . . . we need greens. Soup. Go see."

"I christen it 'Banana Point,'" cried Mr. King, "there must have been three hundred trees here a few years ago."

As they were making the boats fast, however, John called his Father's attention to the fact that a man had put out from the opposite shore in a motor boat. It was the same fellow Mr. King had interrogated only a short while before.

"He watch us," muttered Hendry.

"That's exactly what he's doing," added John.

The motor boat eased up alongside, even before they had gone ashore.

"Anybody live on the point?" Mr. King asked.

There was a shake of the head.

"Looks as if there was fresh vegetables in the garden and fruit. Any objection to our picking some?"

"Not if you pay for it," the other responded, "that's my joint . . . I used to be there. Whatcha want?"

The suspicious guardian of Banana Point went with them up through the overgrown paths to a weather-worn palmetto hut that topped the slight incline. Some fair potatoes were dug from the poor soil; three Indian pumpkins cut from gnarled vines, and a bunch of green bananas. The garden was not as productive of stores as they had imagined. All the while their companion kept close tabs of what was being done and exacted a cash remuneration.

This young renegade, with his lowering brows and curt manner went back to his motor boat only when the *Mae* and her occupants left the dock at Banana Point. He was still unconvinced as to a REAL mission of the visitors. They saw him, for a full half hour afterward, standing in his craft, at the dock across the river, watching; his soiled hand scooping his eyes, as the sun beat over a shaggy, uncouth head.

As the *Mae* put out into what, by grace of good will, they called a "Bay," all simultaneously spied a strange object. It was eight o'clock, and the sun was so brilliant and dazzling that they could not be sure of their own eyes. Hendry immediately used the glasses. Instantly he gave a grunt of satisfaction and surprise.

"John Billy!" was his exclamation.

"Seminole?" asked Mr. King.

"Good Indian," the guide nodded, "I know Billy. I once live in Cow Creek country. Married Cow Creek squaw." Hendry shrugged his shoulder in disgust at the very memory, "met John Billy there . . . long time ago. Thirty years. Only once, twice I see him since. I leave squaw. John Billy glad, for squaw bad woman. He never like her, either. We get Billy pilot us up Lossman's. That a good idea."

"But will he do it?" inquired Mr. King. John's gaze was fastened upon the queer object in mid-stream. As the *Mae* brought them nearer, he saw that it was a beautifully modelled cypress canoe, perhaps twenty-eight feet in length and supplied with a sail that scudded it along rather daringly. This leg-o-mutton of soiled cotton cloth was tied on a make-shift mast with buckskin thongs.

It was reared at least twelve feet in air, and presented a rather odd appearance. The Seminole, attired in the outlandish costume of his tribe, sat astern with a paddle, at overboard steering. His canoe was pretty well loaded with a cargo of sundries from a trading post.

But the moment the Indian looked up, as Hendry hailed him, a light of sudden, sure recognition illuminated his dull eyes.

"You HENDRY!" said he, without a moment's hesitation.

The two grasped hands and made signs over their respective boats. Whereupon a conversation took place that was composed of parts of a half dozen mongrel 'Glade tongues.

"He says he will go with us . . . far 'nuff," said Hendry.

"Splendid!" Mr. King exclaimed, "we have been aground on the oyster bars at least five times already . . . we need a guide. Where was he going?"

"Up one of the rivers from Harney," said Hendry, who was acting as interpreter, "he say he has been Chokoloskee island for supplies. Goes one time every years . . . no more. Take deer skins, coon, otter, 'gator skins . . . they give him supplies in exchange. Fifty pounds rice . . . grits . . . flour. Some cartridges, shells, new beads for squaw."

The trading post at Chokoloskee, of which we shall learn more later on, first hand, dates back to before the great Seminole wars. There are remnants of a fort on the island and quite a settlement of white men. Mr. King recalled this fragment of West Coast history.

HENDRY and Johnny Billy continued to talk in voluble guttural tones. They were rehearsing the past.

"He says he no been to Miami in twenty-five years," translated Hendry, "his

birthday not long ago . . . sixty-five year. Feel young."

And the Indian looked it! He was vigorous of build, strong, active and bright of eye. A life in the open, hunting and fishing, had thrown a sort of magic halo of Health over his bronzed body. These good points were elaborated by his characteristic Seminole costume . . . the bright-colored tunic, exposed chest, and bare legs and head.

Johnny Billy was of some account in the region, for, upon the death of Cypress Tiger, he became chief of his particular tribal unit, situated on an island at the headwaters of Lossman's River, or sometimes found on hunting expeditions out from Harney and Shark. Some very famous chiefs knew Lossman's as their

Here we see the gate house and dismantled remnants of Dr. Cypress Tiger's one-time home on the outskirts of the 'Glades. Great game country surrounds it, but superstitious natives never disturb the great Seminole's last crumbling, vine-covered shrine



A veteran of the 'Glades was smoke-curing a fine venison carcass by a process peculiar to the 'Glade folk for many generations

primitive home . . . Billy Buck Harney, Johnny Billy and the illustrious Tooth-pull Tiger, Son of Cypress Tiger, all of South Seminole tribes. Billy reigned supreme over perhaps thirty sturdy bucks and women and children, to the aggregate of seventy-five.

At 1 P.M. Billy had brought them safely into the still waters of Dr. Tiger's Lake. John was beginning to experience the mystery and thrill of a far country. For a reason he could not quite analyze, he found himself talking in subdued tones. Echoes were intimately clear and resonant. Swinging overhead and above the tops of cypress, mangrove and cabbage palm, there were birds of every Florida kind. Here would the rifle prove a handy weapon! They could have filled the boats with duck, heron, wild turkey and crane in an hour. It was obvious that the party had at last stepped across the line between average Gulf sport and a forbidden realm of enchantment. As for the waters . . . they were constantly rippled and sent into widening silver circles by the playful fish that swept eagerly to the surface after falling insects.

And Hendry grinned at John and John smiled at Hendry. Translated, this exchange of mutual gratification meant: "Here we will get out the rod and the flies and all our paraphernalia. It will be fishing such as no human ever encountered before!"

EVERY mile of the way up had been touched with beauty and unspoiled romance. Lossman's is nothing more or less than a channel of three-fourths of a mile at its extremity in length, opening into a flowerful bay, shallow, shadowed and humming with the low songs of wild life.

They were all hungry by this time and the *Mae* was nosed up, until her bow left the water on the low, smooth beach of Dr. Tiger's Shell Mound plantation. Was there ever a more picturesque . . . a more ghostly place! This immense shell mound foundation formed an island abutting the mangrove and cabbage palm shore, and it was over-run with the living things that Tiger had planted and that lived on, after his sad death. There was the ruins of what had once been a snug shack, back from the shore, but rains and summer heat had warped the planks or started disintegration. An Indian might have sore need for fire wood, but all this island rendezvous of a much-loved person was sacred. Time might claim it . . . human hands never!

Mr. King and John stood rather breathlessly at the open door of the old shack. Earth there was for floor, and heavy flat fans of fern glorified it. Upon a broken shelf there were bottles . . . low, sinister glass jars, long since empty, but once filled with those swamp concoctions which the Indians believed would bring eternal health. The odor of dead world sprang up heavily from dark corners, and little yellow and green lizards raced at their feet.

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WHEN AND HOW TO USE BAITS IN TRAPPING

THE MAJORITY OF THE METHODS EMPLOYED BY BEGINNERS ARE AT FAULT BECAUSE THE WRONG DECOY IS SELECTED OR THE RIGHT ONE IS IMPROPERLY ARRANGED

By GEORGE J. THIESSEN

THE professional trapper uses decoys. So does the amateur, only too often and not in the right way. An examination of the sets made by young trappers during the past few years reveals the fact that they actually decrease their chances of success by employing lures. Most instances showed clearly that attractors were employed when not needed; that is, traps placed in position where even the best baits would make fur bearers suspicious. Particularly was this true of attempts to catch mink and raccoon. Further, fully seventy per cent of the methods employed by beginners disclosed that either the wrong decoy was selected or if the right one, improperly arranged. Sometimes both faults were apparent. With practically all raw furs in good demand and the pelt hunters using their money to buy, so far as possible, Liberty Bonds, War Savings and Thrift Stamps, a few suggestions on baits and their use will prove of value.

Success in trapping, like that of anything else, depends largely upon the knowledge had of it. Too often is it true that the trapper will start out with a few homemade or steel traps to get hides of animals he knows nothing about. The best preparation for the pelt hunter is to study the habits of the fur bearers he would take; know where to look for them; how they get their food; what they eat—in fact a hundred and one things which only experience will bring. As proof of this statement, it is well known that the professional taker of skins does not let an opportunity go by to learn his trapping grounds thoroughly, including the location of dens and runways. Every sign tells a story to those who can read it. Old trappers can tell instantly by the tracks and other indications whether an animal is traveling, feeding or seeking its burrow. Not a thing eludes the trained senses. And when the time comes, all these little details which escape the eye of the young pelt hunter is used to advantage by the experienced.

THE best time to study fur bearers is early in the fall. At this season they are most active, preparing their winter quarters and storing up food. A good flash-light will help too, for with it the beginner can locate tracks under shelving banks, in dark holes and runways, which otherwise might be passed by. The hours put to such use will bring big returns.

Generally speaking, all of the small animals eat flesh with the exception of the muskrat. This lives on vegetables. Although some claim it will gnaw meat, my experiments have never proven the assertion. The 'coon can be lured with



The sets must not be neglected

either kind of a bait. Since specific lures will be discussed later for each of the commoner fur bearers, it is not necessary to go into details now.

Attractors may be divided into two kinds: natural and artificial. Of the former there are the foods; of the latter, scents and other devices designed to attract attention. Briefly, the natural decoys will be given:

SKUNK: This fur bearer prefers bloody meat, especially if fresh. The carcasses of muskrats are good, too. If rabbit is employed, it is best to rip open the belly so the entrails protrude. Dead poultry even if decayed sometimes is worthy of trial. Mice and small birds do not, as a rule, give good results. Avoid crows, hawks and owls.

CIVET CAT: Like the previous animal, fresh bloody meat is good. The other baits mentioned are recommended, too. Small birds if plucked are excellent. Rotten fish may be employed also.

RACCOON: Like its larger brother the bear, the 'coon always seems hungry. It likes honey, especially if in the comb. Small fish—fresh, canned and smoked—are excellent attractors. Clams, corn and similar are often employed.

OPOSSUM: Small birds of the reed variety when plucked give good results. Sardines, those put up in oil, are very effective. The head of a smoked bloater is recommended. The skin is good, too; in fact a waste which is better than the flesh. This is true in other cases.

MINK: In most cases the flesh of muskrat and rabbit is best. Small rather than large pieces are recommended.

Fish, mussels, crabs, and similar, can be used also. Some consider the head of a chicken an ideal lure, but in my experiments I have found most of the others mentioned more effective.

WEASEL: The head of a rabbit arranged naturally, fresh meat and blood, can be depended upon. Muskrat flesh is a good decoy also.

MUSKRAT: Parsnips head the list of natural baits, because of the pungent odor. Carrots, turnips, potatoes, beets, corn—in fact almost any of the vegetables—are used by professionals. One of the best trappers I knew employed apples almost exclusively. Sometimes he switched to cabbage and pumpkins.

Whenever a decoy of any kind is selected, with one exception for taking raccoon, it should be placed near the set in such a position that the fur bearer in investigating will be caught. The bait must not be on the trap for the ordinary methods. However, the 'coon being inquisitive will investigate bright objects in the water, invariably reaching for them with a paw. Pelt hunters, therefore, often fasten a piece of bright tin or a piece of looking glass to the pan of a trap, concealing the rest with moss or water-soaked leaves. This instance is the only one where bait ought be so arranged. Experiments with the method has convinced me that in ordinary usage, it may be dispensed with entirely.

One of the best artificial scents for flesh-eaters may be made by chopping up fish and letting them rot in an open-mouthed jar. When after muskrat, cut up a beaver castor and let it soak for several days in alcohol. Castorum—the other name for castors—can be had at almost any drug storer. Fur firms are able many times to supply it also. One gland is sufficient for a whole season with the average pelt hunter. Only a few drops of the liquid are necessary as a decoy.

THERE are many patent baits upon the market. Some of these are very good and others worthless. Regardless of the claims of the manufacturers, none are magic compounds which will actually drag animals into traps. If one cannot get furs without them—if his sets are crude—success need not be expected with even the best attractor. And let me say for them that were I to go on a line, there is any one of a half dozen I might select and get results. There are others I would not use. Experiments covering several years in a number of locations, convinced me that the so-called scent actually repelled. I have in mind a demonstration in Iowa where one lure would draw mink from their regular runway, fifteen or twenty yards almost without fail.

Another advertised product gave no results, whatever. When used within a few feet of a runaway, the fur bearers did not travel it for days afterwards. Test after test was made with the same result. Hence, it is evident in buying decoys that one must know what to select and what to let alone. Some baits are made to sell rather than draw fur bearers. Remember this when tempted to part with the price of them.

Never use an attractor unless the set cannot be made without it. The beginner imagines that unless he has some kind of lure he will not catch fur. While it is admitted that competition is keen among pelt hunters, that farms and villages supply considerable food for the animals, most of the methods employed

by professionals call for little or no bait. And in connection with this, I might add that those who have had no experience taking hides seem to imagine that the bigger the decoy, the more successful they will be. To illustrate, one Michigan trapper invariably used not less than one muskrat for each mink set, but as soon as he employed an eighth or a tenth, his catch increased. Of course what is true in this case would not be for skunk and civet. In fact the carcass of a steer might prove better than any part of it. One must, as stated before, know the habits of the animals he would trap before he can make an intelligent selection of decoys.

Laughable as it may seem, one ambitious pelt hunter had carefully saved

pieces of bacon rind and securely wired them to the pans of his traps. Best of all he was after foxes, one of the very hardest animals to draw, with lures which, as he soberly assured me, were permanent for the season. No amount of explanation would convince this novice that his methods were entirely wrong. It is safe to assume that he has never flooded the raw fur market.

A PIECE of white paper or cloth a few inches above the water, will often attract the muskrat. I have known this decoy to get hides when all others failed.

Those who have their trapping grounds to themselves often make a practice of

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DUCK SHOOTING ON THE MEXICAN BORDER

THE FIRST FLIGHT OF DUCKS SOUTH CONSISTS OF OUR SMALL FRIEND, THE BLUE-WINGED TEAL, AND THE SPOON-BILL

By LIEUTENANT-COLONEL JOHN A. CONSIDINE

THE duck season opened here October 16th, and as you might expect I was out bright and early to welcome the birds. I have noticed for the past month a number of ducks sitting on the ponds, and flying south over this country in great numbers. A great many ducks, thousands of them in fact, have passed over this range country going south into Mexico, and quite a few of them make this country, between the Southern Pacific Railroad and the Rio Grande, one of their stopping places in their long flight from the north to Central Mexico.

The artificial tanks and ponds used for watering cattle on the range at present are covered with various species of ducks, mostly all varieties of teal, blue-wing, greenwing and cinnamon teal, quite a number of sprigs and what is known in this country as a grey duck. The grey duck is about the size and confirmation of a mallard. There are a few mallards in but not in any great numbers, though we expect to find more in later on in the season.

As is usual in this country, the first flight of ducks south consists of our small friend the blue-winged teal and the spoon bill. Quite a few of these are now in on the lakes and ponds in the district. Having seen a great number of ducks



Crawford's Ranch in Fresno Canon, on Marfa-Lajitas road

THIS account of duck shooting in Texas is part of a personal letter from Lieut.-Col. Considine. Its interest to sportsmen and the fund of timely information it contains warrant this presentation of it to our readers.—[EDITORS.]

that come through here, and noting them on the various ponds, etc., and having located about where I wanted to hunt, on the afternoon of the 16th I got out my trusty gun, called to my old Chesapeake, jumped in a car and lit out from Marfa in the direction of the river. I went down in the general direction of Terlingua, Texas, on the old Antelope Springs road for about ten miles, and then cut across country to a large lake (for this country) where I had several times seen as many as a thousand birds

at one time. I arrived at the lake and as there was no cover there, I went over farther to a small dip in the hills where the recent rains had formed a small lake about two hundred yards long and fifty yards wide. In the centre of this small pond was a high embankment with bushes growing all around it, forming one of the best natural blinds I have ever had the pleasure of

shooting from on any trip after birds.

I sent the car back and a friend who was with me took station on the big lake, and I remained on the small pond. This large lake was about a mile from the small lake or pond where I intended shooting.

I set out my decoys and got ready for business. About ten minutes after everything was ready, I heard my friend firing on the large lake, and about two minutes afterwards a big flock of sprig swung over the hill, came up to the decoys as prettily as anyone could wish, and I opened my 1918 duck season by making a double. The old dog, all during the preparation, wisely followed every movement, assisted me in locating the decoys, and when everything was set for the shooting, came in and lay down at my feet. He saw the ducks coming as soon as I did, and it was really

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THE FIRST REQUISITE OF THE ANGLER

SOME BAITS ARE SO USEFUL AND OTHERS SO INDISPENSABLE THAT A COMPREHENSIVE LIST IS OF SERVICE TO THE SALT WATER ENTHUSIAST

By LEONARD HULIT, Associate Editor of FOREST AND STREAM

ONE of the prime requirements of the angler at all times is bait.

This applies as well to the fresh water disciple as to his more heavily tackle-burdened brother, the enthusiastic angler of the surf and shore.

In the latter sport there are so many baits which are useful, and some at times so indispensable, that a list with comment thereon may be of service to the novice. It is well to remember in all cases the nearer to natural conditions the lure can be presented the greater the chances of success. There are some varieties of bait which cannot be used in its whole form, and must be cut in pieces, yet there are some ways better than others even in this service.

THE SHEDDER CRAB

FIRST in importance as a bait in salt water fishing is the shedder crab.

There is not a fish native to our waters or which comes to them, which will not take at times take this bait. So well is this fact known that many men of experience will not go out on a trip without a supply of this commodity on hand. Even when other baits seem to be more desirable, such as the quest of the bluefish when mullet or menhaden are ordinarily the killing proposition, still as a reserve in emergency, the shedder is somewhere in the "kit." To the experienced this bait needs no description nor any directions as to how it should be prepared. There are many however who know little or nothing of where they may be procured or how to prepare them for the hook. They can usually be purchased at the better bait supply stores in all cities near the coast and ordinarily are sold for about one dollar per dozen. Frequently, if the fisherman is near the soft crab gatherers who ply their work in all the shallow waters of the rivers and bays, the shedder may generally be had from them at about one-half the former price. Still the chances of this are so uncertain and the endeavor ordinarily so great that it is more satisfactory to get them at the store where the quality can generally be depended on; for there are many tricks in this trade, and the novice may walk away from the unscrupulous tradesman's stall with a box of fine looking crabs only to find when endeavoring to use them that there is not a genuine shedder in the lot. If the purchaser has any doubt as to what he may get, he can easily test for him-

self the condition of the crab by taking the extreme point of the shell between the thumb and forefinger and, if under a gentle pressure of the finger on the under shell it gives way, the crab is in good condition, and may safely be taken. This is a never failing test, and one which is always used by the man of experience. If on the other hand the shell will not readily break through by gentle pressure, it is useless, and will be found impossible as a bait.

The term shedder is aptly applied, and when properly handled the entire shell can be removed as easily as the shell from a hard-boiled egg, leaving the body of the crab intact, a good solid bait, to be cut in sections as will appear later on. In preparing them care must always be exercised or the hands will suffer from the nipper claws which are ever ready for business, and a good healthy crab can inflict a wound which is not to be despised. The proper way is to take them up in the left hand from the back and by a quick motion gather in the right hand one of the nipper claws and with the same motion remove the claw, which will always come loose with a smart wrench; the other claw can be removed in the same manner, after which the crab is harmless and can be handled with impunity. Then with handle of a knife or a pair of shears—the latter should be always a part of every "kit"—tap the under shell smartly until it cracks much the same as an egg shell into small parts which can be removed; then turn the crab over, going through the same detail with the top shell until all is removed. The claws which have been previously removed can be cleaned in the same way and they always are an important part if of good size. When baiting for striped bass or channel bass half of the crab should always be used. First, string the claw portion on the hook much the same as a worm, passing it up beyond the hook and onto the shell. As large hooks are always used for these fish such a portion will be found not too large and it makes a most attractive portion. If the side fins or feelers, as they are termed, are left on, so much the better, as they add to the attraction of the bait. In fishing for weakfish, kingfish or croakers, as well as many other fish, the crab can be cut in much smaller portions and serve equally well. Always remember to cut the meat crosswise of the body as this is the direction

of the grain or strands of the flesh and it will stay on the hook much better than if cut in the opposite direction. There is on the side of the crab opposite from the mouth, under the shell, a dark flap-like portion known as the "apron." This should always be retained, and when placing the crab on the hook the point should be passed through this portion, as it is very tough and causes the bait to hang to the hook well. And—as a warning—never accept from a dealer a dead crab. If he tells you they are just as good as the live ones, he is not honest and will deceive you in other matters as well. The only crab which is a "good crab" is the one which peels readily, and the one you kill yourself when ready for use. When out fishing always keep the grass which is on the crabs well moistened, not soaking wet, as this last condition has a tendency to smother them. Upon your return put them at once in the bottom of an ice box or other very cool place, and always where it is dark. By following these directions crabs can be kept several days in good shape.

BLOODWORM OR WHITEWORM

NEXT in importance to the crab in the angler's bait category is the bloodworm or whiteworm, as it is frequently called—why the latter name is difficult to understand, as it in no way describes the subject. On the other hand the name bloodworm is quite comprehensive as the worm is at all time congested with blood and is never white.

This worm, as well as the crab, may be had at all bait stores and is a special favorite with many fishermen at all seasons. It is, however, in great demand during the early season for use around the inlets in bass fishing, as they apparently feed much on this during the early spring, and also the autumn months. As a trolling bait it is paramount; used in connection with a spinner it is the most deadly of all lures to the striped bass. This applies of course to boat work, trolling around points where rocks and wrecks are to be found in inland waters, with ends of the worms hanging free from the hook and just lead enough to keep the spinner and worm well down in the water. If bass are to be had this method will prove most availing. The kingfish also take this bait greedily, and at times no other bait will be noticed by them. While at times weakfish will condescend to come to this offering, still it

is an exception when they do so. It is also an important bait for the small flounder and is in much demand in the winter months by the early fishermen who go in quest of this fish. The blood-worm is found at the bottoms of all the rivers and bays of our middle Atlantic states in the alluvial strata and is taken by means of specially designed forks. Millions of dozens are sold annually and many men make good incomes from the pursuit and sale to dealers.

THE SKIMMER CLAM

THIS is perhaps too well known to need much of a description as it is to be found much of the time along the beach front where it is washed in by the tides and where it becomes the prey of scavenger birds as well as the fisherman who, other baits failing, turns to this when in quest of bass. At times this is one of the best possible baits to be had. Many times have I fished when nothing would be noticed by His Striped Majesty but the humble skimmer. It is much used by the deep sea fishermen for codfish and other bottom feeding fish.

THE MULLET

AS a bait fish the small surf mullet is supreme. This fish must not be confused with the striped or southern mullet which occasionally comes to us in the autumn and is an important food fish. The species which is under discussion reaches a length rarely exceeding five inches and is most pronounced in character. It appears along the seaboard as early as July, but is much more abundant during August and September. It ordinarily enters all the tidal streams along the coast, and is pursued by all the carnivora of the sea. Its life is one of continual pursuit by every free swimming fish in our waters. Bluefish, weakfish and bonito are ever on its trail at the surface, while the ubiquitous plaice are continually striking it from below. The striped bass in the autumn feed ravenously on it at times; and it is then that the angler in turn gets back at the bass when he discovers them feeding in that manner, by trailing the metal squid rapidly through the school. The fish mistakes the metal for the mullet and so falls a victim to his rapacity.

In surf casting for the bluefish the mullet is used when possible, as it is of a size to be used whole by passing the hook in at the mouth, then down the body, and then through near the tail. At night weakfish take the mullet readily and great catches of them have been made on this bait; in fact, all the strongly carnivorous fishes of the coast are in pursuit of it. The mullet is taken by means of casting nets as well as the hauling seines and it is amusing to watch the not-too-well-posted hand endeavor to gather in the mullet with the drag net.

He will have them surrounded and sure in his own mind of the prize, but if slow in motion the fish will leap the cork line, and like a flock of sheep each one following its leader leave the discomfitted netter empty handed. They are a beautiful, silvery fish, and when prepared properly greatly surpass the ordinary sardine in flavor.

THE SAND EEL OR SAND LAUNT

AS a favorite bait when procurable the species stands high; in fact, its only demerit is the lateness of the



The old time fisherman was versed in bait-lore

season in which it presents itself. Were it an earlier visitor it is much to be questioned if the mullet would have any claim to superiority. The fact that it is never with us until very cool nights are in season is an argument that does not favor its general use. It grows to a length of ten inches, but is rare of that size. About six inches, of the thickness of a stout lead pencil is the most common size; the belly of a silvery whiteness and back of a livid green make a combination of colors of great harmony. Its peculiar habit of burying itself in the wet sand on the bars as the tide recedes, there to remain until the rising tide calls it forth again, is undoubtedly how its name originated. It is interesting to walk across those places and to see tiny creatures spring from the earth at your feet and as instantly disappear. More interesting, however, is the sight when in the water untold mill-

ions are swimming in vast schools, the water fairly quivering, and from below the larger fish rushing here and there gathering in the helpless launt while in the air myriads of small gulls or terns with discordant cries feed on them incessantly, dipping to the water's edge and circling away with its victim in its bill. After the arrival of the launt, if the weather remains at all favorable it becomes a favorite bait for the use of the beach fisherman in taking weakfish and plaice as well as the occasional bluefish that sometimes wanders near.

THE MOSSBUNKER OR MENHADEN

NO list of baits would be complete without including the mossbunker, as it is so universally termed. It is a good attraction for many of our finest fishes, and is largely used in all the offshore fisheries. It is the exclusive bait for the bluefish fleets, thousands of bushels being used annually. It is, however, its use as a bait for beach fishing which is of interest here. To use, a sharp knife must be brought into play, and the fish cut lengthwise, discarding the head and back bone, then a cross section of about one inch in width is to be placed on the hook. As the flesh is rather soft a piece of thread to wrap a few turns about the whole bait assists materially in keeping it on the hook. If possible throw all the waste portions to sea as they make a slick and attract the passing fish. It is always a good blue-fish bait and one that can usually be depended on for the taking of the channel bass. In fishing for the latter a very liberal portion should be used, as much as the hook will hold, as this fish is ordinarily quite tardy in coming to a feast which is not abundant. I have seen many of these fish taken when all other baits were passed by, only those using menhaden being successful. In former years striped bass fishing at Block Island and Cuttyhunk was conducted entirely with this bait. What the favorite lure may be at this date I cannot say.

THE SQUID OR INK FISH

IT is only within recent years that this bait has held any prominence in the angler's estimation. While it may have been used for a long time by the offshore boats working among the rocks in quest of seabass, it has not had more than ten years of special notice among surf fishermen.

While of course it has been known for an indefinite time among those wise in sea lore, it has never been accepted as a particularly good attraction until recent years. That it enters largely into the food economy of the bass, weakfish and the mackerel family is to be believed, and it is at times a most welcome addition to the anglers "kit." Some of the largest bass ever taken along the

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FISHING BY THE FRIENDLY FIRESIDE

WHEN WINTRY WINDS BLOW, THE ANGLER DREAMS OF THE FAR-DISTANT
OPENING DAY AND PLANS NEW ATTACKS ON THE STRONGHOLDS OF THE TROUT

By VIRGINIUS

THOSE who know what it feels like to have the fishing virus enter their blood during the winter and who, along holiday time, prefer to gaze into the depths of the friendly fire, seeing a certain pool where that big one will be lying in a few months, instead of reading the daily horrors in their paper, will find very little instruction—but perhaps a slight interest—in reading what I have to say. Rather will those poor unfortunates who have never caught a trout, nor planned how they should catch others, find perhaps something herein to lead them to a better life, that of—I sincerely trust—a fly fisherman.

Those of us who hunt certainly find pleasure in taking good care of our guns and exercising our dogs; we who camp love to overhaul our duffle, patching the tent, sharpening up the ax, making marvelous new sleeping and cooking contraptions; but those of us who fish for trout—we *never* have time enough to overhaul our tackle properly! There are new windings to be put on this rod, and that one is to have an agate guide; the fly that the "big fellow" really would take best must have a different hackle from the March Brown, and our stock of Whirling Duns looks rather played out, so they must be retied; there are some bad spots in this leader, and the landing net needs a bit of patching. Oh! if any one should ever get through fussing with his tackle—which he never will—there are so many different ways of fishing that eddy just above the big round rock, and the place where the current has cut under the left bank by the leaning oak. These and many other battlefields must be thought over, and the best plan of attack decided on—only to be changed when we finally fish them.

You who have never fished for trout, if you have read this far without giving up in disgust, must see what a lunatic a fly fisherman can be. Here I am in the middle of December wondering whether Emerson Hough is right about that buck tail for high water in the streams, and whether I shall make my first cast in a certain little pool just above the white bridge with his much praised buck tail—on the first of next April, mind you!—or whether a Silver Doctor sunk about ten inches will turn the trick. And my favorite rod has just been set up and gone over carefully in preparation for that April day's fishing. Now I wager that there are a thousand other men in this country tonight who are not only thinking about whether they shall go to this stream or that one on the opening day, but are revarnishing their rods, tying leaders and flies, paraffining lines, and gazing wistfully at fishing catalogues. In other words, mine is not an isolated case of

the trout fever; it is prevalent in a violent form throughout the country.

WHY is there such a gripping fascination in fly fishing, and what is this fascination? I hardly know; it consists in so many things that a list of them might become tedious. If you are at all curious about it, try it, and the answer will be plain even if you too cannot find words for that answer. I have spoken of fly fishing several times; if you would know the *real* pleasure and beauty of catching trout, become a fly fisherman, and leave bait fishing to those who fish for food instead of pleasure. When I started to write I made up my mind I would not take sides on any of the "great arguments"—dry fly versus wet, upstream versus down, and so on, and I hardly feel that I have broken my decision when I say "leave bait fishing for those who fish for food." We all fish for food at times, and when the camp needs trout for lunch and flies are not attractive, by all means use bait, so that we may not be forced to fish our flies all afternoon on empty stomachs.

I suppose there must be something delightful about deciding whether to use this worm or that one to try to catch some big speckled fighter on, but I *know* it is delightful to open the fly book and wonder whether a dark Montreal or a Coachman will prove most enticing to that same big fellow. And there must be some satisfaction in being able to chuck a baited hook into the current so that it will be carried down to a hungry trout, but the satisfaction there is in dropping a dainty fly just where it will do the most good—about twenty-eight feet from you near that patch of foam—is something I can *vouch* for. Furthermore the joy at landing a trout must be something fiendish to repay a bait fisherman for tearing most of the trout's entrails out when he releases his hook; I know that a fly fisherman's joy is not marred by removing his fly from the unfeeling lip of his adversary. Well, I suppose it is really unnecessary to enlarge on this subject; surely it is if you will only try fly fishing.

SO many better men than I have described the outfit necessary for the tyro that I almost feel it would be superfluous for me to do so; I will content myself with a few "don'ts" connected with the purchase of such an outfit. And the greatest of these is "Don't buy a cheap outfit." That is not a very encouraging remark, is it? It is not as bad as it sounds however. I have met men on a trout stream with rods that must have cost all of \$1.50; they also had every other item that is devised for the use and pleasure of a trout fisher-

man. If necessary do without a fly-book, and a creel and a leader box, and a dry-fly atomizer, and several other things, but GET THE BEST ROD YOU POSSIBLY CAN AFFORD!! Almost any medium priced enameled line (if there is such a thing) will be strong enough to hold any trout you will catch, but the same cannot be said of leaders. Cheap flies may look just as good to you as expensive flies, but I am satisfied that a trout can tell the difference in the price better than the most expert fishing tackle dealer. If you cannot afford to buy three dozen *good* flies, try one dozen or half a dozen. You can be just as economical as you please when it comes to a reel, but get one large enough to hold the line you just purchased. I started out to tell you some "don'ts," but I see it developed into "do's"; so *do* buy the best rod, leaders, and flies that you can, and skimp on the other items.

A hat band or an envelope will serve as a fly book; an envelope or a little tin box will do for a leader box; an old wet towel or a handful of grass in connection with a coat pocket makes a serviceable creel; and so on through all the things that we would like to have and can't afford to have if we get a good rod. Never fear, however, when the virus gets into your blood it will not be a question of what you can afford to spend; it gradually develops into patching an old suit instead of buying a new one, so that you can become the owner of an imported double-tapered line, or some new fly-box with little clips that keep your dry-flies just as they should be kept.

AND now a word as to the time when we become thoroughly imbued with the fly-fishing disease. Our first impulse is to become rabid partisans in the "great arguments." Don't! Every kind of trout fishing: upstream and down stream, dry-fly and wet-fly, fishing the rise and fishing the stream, all these are the best way at the proper moment. The fisherman who employs them *all*, is the best fisherman.

I have recently become the proud possessor of a very beautiful volume on trout fishing—the most elaborate volume on this subject it has been my good fortune to see—and my distress at finding several chapters taken up with bickering about wet-fly and dry-fly men, and what this man said and that man said and the dictionary meanings of their words—well it is a rank shame that a man with the talent, knowledge, and experience that the author of this book has should incorporate such trivial stuff in such an otherwise authoritative work.

When you become an accomplished fly fisherman I beg of you not to add your

bit to the one unfortunate rift in the big family of sportsmen and gentlemen who compose the trout fishing company of the world. Have your discussions and wax warm in the defense of your theories, but always remember that all the methods are good and all are right. You may most enjoy wet-fly fishing and I dry-fly fishing, and we each have a sneaking feeling that our own method is really the only best way, but as we both fish both ways successfully let us not become enemies over the matter.

room for a back cast quite as long as you wish, shooting the line helps to overcome this. I believe also that it is much easier to cast a light fly in this way; your fly cannot slap down on the water if you shoot your line. This may not be the "cure-all" that I consider it, but I assure you it is worth looking into.

Another thing that is not mentioned in the books is what I call "feeling your line" on the back cast. By this I mean that just before your line straightens out behind you, if you move your rod

for a minute and then, rushing on, cast there a few times, as if they were afraid that some one might catch up with them, and cast a fly in some water ahead of them. The consequence is that neither they nor any one else gets any fish.

Still another very unfortunate thing to do is to stop near the stream in a place where a man is casting, in such a position that the fish may see one; this is often done by some admiring person who would not be rude intentionally for anything in the world; however,



In midwinter the angler dreams of the many different ways of fishing that eddy just above the big round rock

AS to learning how to cast—well, I tried to learn from books, and spent a whole winter practising faithfully; my results were very indifferent. One day I went fishing with an expert, and I learned more in the first ten minutes of watching him than I had learned out of a half a dozen books. However, what I learned from the books became more and more useful as I watched my expert friend. I could tell you what motions to make in order to cast, but I could not make you *feel* that indescribable rhythm—if that is the word—that makes you put the life into your rod at just the right instant so that the line will fly out easily, and carry the extra five feet you hold in your left hand through the guides, allowing the fly to drop lightly on the water. Why is it that the authorities do not lay more emphasis on "shooting the line"? This means that you hold a loop of the line in your left hand (if you cast with your right) and just as the line straightens out in the air in front of you, release the line in your left hand, allowing the weight of the rest of the line to carry it out through the guides. It is surprising how much line can be shot out this way; and where there is not

tip just a little bit forward you will feel the line pull on it; that is the instant when the forward cast should begin. A good caster does this without realizing it, as you will notice if you watch him carefully. The forward movement of your tip should be barely perceptible, and should not take place until you think the line is almost entirely straightened out behind you.

JUST a word in conclusion about the etiquette of the trout stream. If you think it is wise to be polite and gentlemanly in the drawing room, let me assure you it is doubly desirable to be scrupulously so on the trout stream. I have seen the most shocking behavior when fishing on certain streams and the most delightful good manners on other streams, and the day's pleasure is very closely connected with this matter. For instance, on one stream I know of it is a very common occurrence for one to be quietly casting over a pool, when suddenly some unseen hand will swing a baited hook out into the water just where one is fishing; a man that perpetrates an action of that kind is no better than a swine. Other people will go crashing along the bank of a stream casting here

to the man who is trying to catch the fish, this is very annoying. Always be thoughtful of the *other* angler.

If you know some stream well from having fished it many times, and meet some stranger on it, tell him what flies are considered most taking, and either show him or direct him to the best pools and riffles on the stream. If he has not the proper flies, and you have several of them, you may rest assured that it will pay you to give him one, or even more, if you can. I have been the recipient of such favors on a trout stream, and I have also done like favors for others. The best place to learn trout fishing is on the stream with a brother angler, and if you are generous and polite your opportunities for learning will be many.

Try to remember that there are plenty of trout in the world for all of us, and when you have helped the other man catch his, you will enjoy catching yours all the more. Let us *all* try to make our streams pleasanter places, and make trout fishing the most gentlemanly and sportsmanlike pastime, by being true disciples of Izaak Walton—the most perfect angler of all time—and helping to make others so by our good examples.

FOREST AND STREAM

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THE OBJECT OF THIS JOURNAL WILL BE TO studiously promote a healthful interest in outdoor recreation, and a refined taste for natural objects.
 August 14, 1873.

JOHN LYON



JOHN LYON, associate editor of FOREST AND STREAM, a Lieutenant in Machine Gun Company 116th Virginia Infantry, was killed in action in France, October sixteenth.

John Lyon was twenty-five years of age, the son of Frank Lyon, a Washington attorney, whose home is at Lyonhurst, Virginia. He was a graduate of the high schools of Washington, a student of the University of Virginia and did his first newspaper work on the Alexander county *Monitor*, which was owned by his father. From the *Monitor* he went to the Washington *Times* and later joined the editorial staff of FOREST AND STREAM, and soon became an important factor in the affairs of the magazine.

His writings in the various positions which he occupied attracted the attention of older journalists, and a brilliant future was predicted for him in his chosen work, for he was a keen observer and a skillful analyst, whose natural brilliancy of style was always tempered by that kindly sympathy for the feelings of all humanity which distinguishes writers who extend their sphere of influence in the world of letters.

John Lyon hated war. His mind revolted from its brutalities and its savagery. He was not attracted by its glory or its fame but he was unflinchingly loyal to the call of patriotism—spontaneously responsive to every call of justice and ready to champion the rights of Humanity.

When word came that the Teutonic hordes were pouring over the borders of Belgium and France, John Lyon sailed. He served in the American Ambulance corps. Returning to America he joined the forces that were sent to the Mexican border. When the American Expeditionary Forces went overseas he declined a commission and enlisted as a private, and was successively advanced to the rank of Lieutenant.

John Lyon was indeed a worthy son of Virginia—a state of noble traditions and of educational institutes dedicated by Jefferson and Lafayette to the cause of human liberty.

Beneath the gentle, courteous reserve of John Lyon there burned the fires of an immortal loyalty to all that is high and noble. He loved life, but more than he loved life he loved Human Liberty. Had he willed to die he would have chosen the place where he lies—the fields of France where for two thousand years men have poured out their hearts' blood in the cause of Civilization.

AN IDEAL OF LIFE

THE new year opens up with the assurance of Peace and a promise of Prosperity. It also presents obligations born of the lessons which the Great War has brought home to us. We have learned among other things that the world will not tolerate tyranny or bad sportsmanship.

The slaughter which the war has entailed has born into human consciousness a sense of Justice and loyalty to Right which finds expression through every channel of human activity.

FOREST AND STREAM readers have always raised their voices against "Hunism" in relation to wild life and in the years have led many movements for the protection of our natural resources—too many to enumerate here. The now famous Audubon Society was inaugurated and for several years wholly supported by FOREST AND STREAM. The Migratory Bird Law came as the result of the thought and effort of our editors. The preservation of Yellowstone Park as a pleasure ground for the nation was the work of this magazine which for twelve years conducted a systematic campaign against a powerful syndicate that sought to exploit the natural beauties of the region for personal gain.

Glacier National Park is another monument to the untiring endeavor of FOREST AND STREAM to establish and maintain this wonderful work of nature as a National Park. In all these constructive enterprises FOREST AND STREAM, its readers, its contributors and its editors have worked together wholeheartedly and we feel will continue to do so.

There is much to be done abroad, but let us not forget that there is much to be done at home in preserving and protecting our natural resources. We must remember that we are not "given dominion over all the earth" in order that we may ruthlessly plunder and appropriate, but that we may above all protect and preserve the beauties and bounties of nature.

The War has emphasized the great mistake of

wastefulness. Peace cannot thrive among a people where there are hearts that are wanton in their waste, where the rights of the generations that are to come are unconsidered.

The sportsman is as careful to observe all the unwritten as well as the written laws of sport as he would be careful to observe the code of honor between himself and his fellow-men. There is an unwritten code of honor that outranks that between man and man. It is the sense of Honor that a man demonstrates when he refuses to take an unfair advantage of even a wild animal.

Many things can be done toward developing sports. Weapons can be improved, equipment developed, and shooting practiced until marksmanship is certain, thus eliminating the chance of wounding without killing the wild things. In some of the boys' schools throughout the country the practice of trap-shooting has been instituted and it is an excellent thing. It teaches a boy control of his muscles; steadies his nerves, make his aim sure; disciplines his tendencies to waste because it implants in his mind a sense of decision and directness which aids in preserving time and material.

The debt we owe to Nature is almost beyond our power to repay. Nature has stored up fuel for our comfort; minerals for our use; even jewels for our adornment. She warms with her golden sunlight, and her fruits and grains furnish us with sustenance; her trees shelter us; her rivers and forests yield their bounty that we may be housed and fed. To despoil nature needlessly is the worst kind of vandalism.

Nature teaches us love and faith and truth because Nature is always reliable. Have we not seen year after year from frozen earth's dark bosom the tall green grasses rise, the fairest flowers bloom? Nature proclaims the integrity of the universe through her laws of growth; her recurring seasons; her rhythmic flow of time and tide. And Nature gives us beauty so great that neither poets' words nor artists' brush can depict it.

The nature festivals that have come down to us through all the ages, and are reflected in modern life by days of rejoicing and of thanksgiving connect us with the Past through a common love—the love of Nature the Great Mother feeding her children from the fullness of her bosom.

This is the ideal of life which FOREST AND STREAM has always stood for. It is the policy of construction which the New Order demands. The Old Order—symbolized by Hunism—has vanished. The New Order has come; it is parented by the larger vision which lives not for itself alone but for the race that is to be.

FOREST AND STREAM points to the fact that this ideal has always been our aim. As long as we have the commendation and the support of our readers as we have had in the past in our effort to preserve and protect the blessings and beauties of Nature, we will continue to voice the "call of the wild"—not as a vandal ground, but as a play-ground. For one thing is certain—the superman when he shall arrive will be a nature man, a lover of forest and stream.

May the year be filled with healthy joy; with love and service to Life.

THE SALE OF TROPHIES

THE suggestion that laws be passed forbidding the sale of the heads of game animals has called

forth considerable criticism from some readers.

To those who sell such trophies and to some of those who wish to buy them, the passage of such laws appears a hardship. In a way it is, but in civilized society people are obliged to submit to many restrictions of their liberty, because such restrictions make for the greater comfort of their fellowmen. Even today, throughout the United States multitudes of people regard it as a real hardship that they are not free to purchase game to eat; yet to a majority of those interested in game protection it has seemed imperative that the sale of game should be forbidden, to the end that its destruction may no longer be profitable to the market shooter and the market dealer.

Mounted heads of big game make attractive ornaments for the home and such heads are often purchased to hang on their walls by men who never saw the animals in life and who care nothing for hunting. If the demand for such heads was sufficient, no doubt men would go out to kill game animals for the sole purpose of selling their heads.

For many years past men have made it a practice to kill elk for no better reason than that each elk furnishes canine teeth which are marketable. One autumn, a good many years ago, in British Columbia, we saw a pile of thirty-five magnificent sheep heads that had been killed the winter before by a local hunter to sell to taxidermists. He had not got around to skinning and cleaning the heads when warm weather came and the whole lot spoiled and he made no profit. The flesh, if we recollect aright, he said he had brought down to feed to the neighbors' hogs.

Still a good many years ago, the only herd of wild buffalo remaining in the United States was almost exterminated by a man who, it was generally believed, had been hired by a taxidermist to kill these animals for their heads. At this time it was said that buffalo heads were worth \$300 each.

Only a few years since heads of the giant moose were killed in Alaska for shipment to taxidermists, and it became necessary for the United States Government to forbid the export of such heads from the territory.

One characteristic of a good sportsman is that he considers the rights and pleasures of his fellowman as well as his own rights and pleasures. We believe that while it may cause some hardship and some waste of trophies to forbid the sale of game heads, nevertheless, such laws will be for the greatest good of the greatest number, and these are the people to be considered.

AN AFTER-THE-WAR CASTING TOURNAMENT

FROM British anglers comes the suggestion of a big International Fly and Bait Casting Tournament as one of the Peace celebrations. At that time there will be many anglers from America and in fact, the whole civilized world, in England and on the continent, and a tournament somewhere in the neighborhood of London would attract many lovers of the sport of casting. FOREST AND STREAM approves very heartily of the idea and we would be glad to hear the opinions of our readers. The preparation of an international tournament is a matter of several months, and if the idea is to materialize it is high time for something to be done. We should be happy to register the names of any who would like to support the movement. The contest would be open to all lovers of the sport.



AT HOME WITH THE BLUE-EYED SHAGS

THE CRESTED CORMORANTS ARE THE FISHERFOLK OF THE FAR SOUTH AND EKE OUT A PROSPEROUS EXISTENCE AMONG ICE-BOUND, ROCKY, WINDSWEPT SHORES

AMONG the few kinds of birds which have adapted themselves to the severe conditions of life along Antarctic ocean fronts is a group of white-breasted, blue-backed, crested cormorants. Long of wind, strong of wing, and capable of climbing and walking upright along slippery ledges of coastal cliffs, the cormorants are at home in three elements. They are par excellence the fisherfolk of the Far South, and so well fitted have they proved themselves to eke out a prosperous existence in the lands of gales, ice, and rock-bristling shores, that they have spread their range clear around the southern end of the world, until some representative of the group has come to inhabit each one of the chain of islands that encircles the Antarctic. All of these cormorants are characterized by a ring of bright blue, naked skin about the eye, whence the common name, Blue-eyed Shag.

At the Bay of Isles, in blustery South Georgia, I met the Blue-eyed Shags in the southern spring of 1912. The wild fjords of this arm of the sea are bounded by steep and icy mountains, but the bay itself is dotted with low, flat-topped islets on which an ice-cap never forms, and which are kept clear of new snow by the denuding violence of the wind. On the precipitous faces of these isles the shags build their homes.

ABOUT the last of December (the June of the Antarctic), I made the difficult landing on the lee side of the smallest islet in the Bay of Isles, and scrambled up the face of its rocky wall. It consisted of a rugged little pile of strata, tipped on edge, channeled by many gorges and pools into which the waves surged, swashing back and forth the long strands of kelp and other seaweeds. On the plateau at the top of the cliff the rock proved to be covered with thick black soil, and a luxuriant growth of tussock grass, which was swarming with those minute and lowly-organized insects, the "springtails" or Collembola. A pair of Antarctic pipits (the southernmost of songbirds) inhabited the islet, and also a few burrowing whale-birds (*Prion*); but the principal residents were the shags, whose nests lined the rocky or grassy ledges all over the northerly or sunny face of the islet's declivity.

The courtship of the shags seemed to be progressing while the nests were building. I saw one pair standing side by side on their unfinished home, and curts-

THE Natural History Department has been for nearly half a century a clearing-house for information of interest to all. Our readers are invited to send any questions that come under the head of this department to Robert Cushman Murphy, in care of FOREST AND STREAM. Mr. Murphy, who is Curator of the Department of Natural Science in the Brooklyn Museum, will answer through these columns.—[EDITORS.]



Photo by Robert Cushman Murphy

At top, brooding female, showing the tremulations of the throat; center, two newly hatched young, lying characteristically flat on their backs; below, female shag with same young birds at the age of forty-nine days

eying. They would put their cheeks close together, bow down their heads and necks, then, twisting their necks, put the other cheeks together in the same way, and curtsy again. After this graceful minuet had been continued for several minutes the male would launch off on a short, exuberant flight, from which he would soon return to resume the love-making.

The nests were steep-sided, truncated cones of mud and withered tussock grass, with a rather deep depression. Some were situated on the tops of dead tussock hummocks, others on the shelves of lichen-covered rock, with long icicles overhanging them. Many contained sets of two or three greenish eggs, others young birds just hatched or a few days old, and still another held three full-grown fledglings which had lost nearly all their down. Both parents seemed to be together at all of the nests. I lifted off one female, which had been brooding with her wings spread, and discovered a blind, black, and unclad shaglet, the eggshell from which it had just crawled, and another egg not yet broken open. It was impossible to keep either parent away from the nest, although the male was less brave than his mate. Both were very gentle, not attempting to defend themselves; they merely watched me sharply with their close-set, blue-rimmed eyes. The only note that they uttered was a low croak. They kept their bills parted, however, the mandible and throat trembling violently, just as when one's teeth chatter. When I tossed them aside in order to see the nestling, they would fly back immediately, and the female would plump right into the nest. The ugly baby, the cause of all this solicitude, acted as though it were in a violent temper. Perhaps it was cold. It kicked about so that I could scarcely photograph it, rolling its belly upward, jerking itself around the nest cavity, squeaking loudly all the while.

A FEW days later I visited the islet again. The shags still seemed to be enraptured lovers, for they were all together in pairs and were twisting and curving their sinuous necks without cessation. Most of the eggs had hatched. Some of the nestlings were just beginning to sprout their ducky down, and horribly ugly little monsters they were, with their black bodies, pink throats, blue bills, and Hottentot tufts all over their shiny turtlish forms. They

were well guarded by their parents, however. I saw one pair attack and bite the neck of a neighbor which had alighted on their particular crag. I noted again that the females were more unselfish and devoted than the males and seem entirely fearless.

The females, which cling so tenaciously to the nests, their mandibles trembling as they watched me, were exquisitely gentle creatures. The males always stood on the far side of their mates so as to avoid possible danger, but the brooding mothers allowed me to stroke their backs without moving. The coloring of these birds was as rich as could be imagined—glossy blue, violet, and metallic green on the upper surface; immaculate white on throat and breast. A line of pure white feathers extended also along the inner border of the wing. The wart-like excrescences above the bill were of a deep chrome yellow, and the iris was brown, surrounded first by a chocolate cornea and then by the cyanine blue of the lid. I offered a small dead fish to one brooder. It was accepted immediately, but was dropped again, doubtless because it was stale.

It was many days before I once again visited the shag colony. All through the midsummer month of January, however, we saw the birds from the ship as they plunged from their rocks into the kelp for fish, or swam about among the areas of floe ice. When rising into flight, they kicked heavily along the surface for a considerable distance. They flew in string formation, a dozen or more together, and often spread their broad feet to serve as an adjunct to the tail, particularly when stopping headway. Their flight seemed to be more or less aimless, for they traveled in circles, as a rabbit runs.

Finally, on February 16, I climbed the shag rock for the last time. The youngsters had begun to acquire greenish quills and white breasts, and were wandering away from the nests among the high tussock hummocks. They had a low, mellow whistle which they repeated over and over, swelling out their throats. The breeding ledges were foul with decayed fish remains and excreta. The parents were rather less confident than when the young were more helpless, but the females as usual showed less timidity than the males.

In March, the end of summer, when we pointed our good ship's prow northward toward warmer seas, many of the adult shags were still caressing and curtseying on their cliff-built homes.

R. C. M.

THE RING-NECKED SNAKE

MR. HOWARD K. GREEN, of Brooklyn, N. Y., was turning over rocks for bass bait at Greenwood Lake, N. Y., when he uncovered a snake that was new to him. "The unfamiliar creeper," he writes, "found coiled under a small flat stone, on high ground two hundred feet from a small stream, was 'battleship-gray' in color, less than a foot long, and

NOTES ON SHORE BIRDS

By J. T. N.

V—LEAST AND SEMIPALMATED SANDPIPERS

SCARCELY larger than sparrows, except for their longer wings, these are the smallest of our shore-birds. They are also the most abundant and the least wary, and are often the constant companions of the gunner waiting in a blind for larger birds. At times they will come nicely to the decoys set out for larger birds, and at other times seem to pay no attention to them. The two species are difficult to separate in life and are known to baymen on Long Island indiscriminately as Oxeyes. The Semipalmate is a little the larger of the two, its colors paler, grayer, less brown. Perhaps the easiest way to tell the two apart in life is by the color of the legs,

Both species feed on the marsh as well as on the flats (and occasionally on the beach) but the Semipalmates do not scatter through the grass so as to be flushed one at a time as the Least often do. Moving north in the spring, Semipalmates are often present in numbers a week or two after the Least have gone (that is, into June, and they do not return in the southward migration until a week or two later than the other species, or as late as the twentieth of July. Speaking in general for the vicinity of New York City, they outnumber the Least about two to one, and this is generally true on the fresh water meadows inland as well as coastwise.



Least and Semipalmated sandpipers photographed on the beach at Mastic, Long Island

which vary from yellow to dull green in the Least, appearing darker and blackish in the Semipalmate. Though frequently found mixed together in the same flocks, when one learns to distinguish the two it is surprising to find how different their habits.

Though some of their notes are similar, the common loud flight call of the Least, *creep*, is quite different from that of the Semipalmate, *chrruk*. The Semipalmates are the stronger fliers, the flocks being more given to wheeling about in the air. They are also the more active on the ground, and scatter less when feeding.

possessed a pretty orange-colored band across the back of the neck—just back of where head and body join."

This serpent was undoubtedly the Ring-necked Snake (*Diadophis punctatus*), a species distributed from southeastern Canada to Florida, and westward from the Atlantic seaboard to Michigan, Ohio, and Tennessee. It is by no means a rare snake, but is almost exclusively nocturnal in its habits, and is rarely seen unless it is accidentally unearthed. Its feeding habits are beneficial from an agricultural standpoint, and of course it is perfectly harmless and

The Western Sandpiper, Pacific coast representative of the Semipalmate, is strangely enough not infrequently found associated in small numbers with its eastern relative, on the Atlantic coast. It may be recognized by its much longer bill, decidedly exceeding the head in length. In southward migration the fresh-plumaged young of this species are whiter about the head than the eastern bird, and have, moreover, diagnostic brick-red or rusty tinges in the plumage; but the more or less worn adults scarcely differ in color from the other species.

inoffensive. Mr. Green's specimen was probably a young one, although even the adults seldom exceeded two feet in length.

Considerable variation is shown by the ring-necked snake. Some of them are nearly black, and the ring is often buff or whitish instead of orange. In most Long Island examples, moreover, the ring is only one scale, or one scale and a half, in width, while specimens from New England usually have strongly marked rings three scales in width.

Near New York this snake has frequently been found in woods adjoining bogs.



From An Old Hunter

LAST winter FOREST AND STREAM published a bunch of letters from outdoormen, telling various methods of keeping the feet warm in cold weather. I did not see among them mention of an old-fashioned cure for cold feet that I have known ever since I was a boy. It is simply to sprinkle a plentiful dose of cayenne pepper in the shoes before inserting the feet in them, so that the pepper comes between the socks and the leather. I have never known this to fail and it is a very easy remedy to try.

I do a little trapping now and then and sometimes I shoot a skin when I am not expecting any fur. I have found that a good dressing of wood ashes well rubbed into the raw skin will keep it in fair order until it can be better cured with salt. This is a handy thing for fall campers to know, for it is not a pleasant thing to find some amateur trapper has used up all the camp supply of salt on some little worthless skin.

JOE JENNINGS, Detroit, Mich.

A Real Oilskin Waterproof Coat

HERE are details of making a real oilskin or waterproof coat guaranteed to turn water in the severest storm. Get a good, strong twill (white preferred) butcher's long coat, two sizes larger than ordinary fit preferred, so as to allow plenty of room. First attend to the pockets. There may be too many, or some without flaps, and, unless provided with flaps, the water will accumulate in the pockets. Have it washed to clear out all dressing.

Now get half a gallon of best boiled linseed-oil and half-pint of driers, mix the two together, and paint the *outside* of the coat with the mixture, working it well into the seams, but not too much oil. Now hang up to dry in open air or a room with good draught. It will take two to three weeks to dry thoroughly. Then give another coat of oil and allow this to dry, and another coat of oil and allow to dry.

Should a black coat be required, mix lampblack in the last coating; for khaki, use ochre.

In this way you can make overalls, waders, leggings, and sou'-westers.

A good black dressing, and one that is thoroughly recommended, is boiled oil and lampblack, one quart; white of five eggs; one ounce of beeswax. Melt all together and paint as before, allowing each coating to dry thoroughly. This is the *main point* in making oilskins.

With a little scheming a lining or storm cuffs can be added and a coat fit for anywhere or any storm can be made.

J. W. MATTHEWS,
Wigan, England.

Knife Knowledge

WE moderns have but a vague idea of the variety of uses to which knives were put in ancient times. Before the Christian era, the Chinese used them even as money. Their currency, or at least a part of it, consisted of a blade and handle resembling our modern silver dining-table knife. It was called tao coin, or knife-money, and bore the inscription "to exchange for merchandise."

Perhaps one of the oddest knives ever seen is the one used by the natives of

WE are depending upon the friends and admirers of our old correspondent Nessmuk to make this department worthy of his name. No man knew the woods better than Nessmuk or wrote of them with quainter charm. Many of his practical ideas on camping and "going light" have been adopted by the United States Army; his canoe has been preserved in the Smithsonian Institution; and we hope that all good woodsmen will contribute to this department their Hints and Kinks and trail-tested contrivances.—EDITORS.

Central Africa. A side view of it reminds one of a large sun-perch; it cuts on each side, like a double-bitted axe, and its handle is made for two hands.

It is a far cry from that primitive half-axe knife to the neat, serviceable hunting knife of today. The modern American sportsman smiles at the comparison, fondles the sheath at his belt, and congratulates himself on the possession of an all-purpose knife.

But is there such a thing as an all-purpose knife? Hardly. When one counts up all the uses to which a hunter puts his knife, he must see that no one blade could answer for all—except in a crude way. Generally speaking, a hunter can foresee the principal uses for a knife, and if these are not too many can choose one that will answer; but it will not be equally good for all these uses, and may be decidedly unsuitable for one or more of them.

Hunting knives are not so expensive

that a man need confine his possession to one blade. The average sportsman can afford several; and if his activities in forest and field are at all varied, he will find an assortment decidedly convenient.

I have never favored the substitution of a knife for a belt axe. It is true that you can buy a brush knife that will stand nearly anything. You may cut out a trail, cut off a deer's skull and antlers, etc.; but for some uses of an axe no knife will quite answer, and there is seldom reason why it should, since a belt axe is an important part of a hunting outfit. A typical brush knife with sheath weighs something over two pounds, and this sheath usually has to be made to order, costing from \$2 to \$3.

The bowie type of knife is not as popular as formerly. The later made knives have an indefinable balance and comfortable "feel" in the hand that the knives of yesterday lacked. Perhaps the main thing that relegated the bowie was the waning of its popularity as a weapon. No knife is dependable in fighting large animals, but it took the sporting world a long time to learn it. In a large percentage of cases a rib will deflect the blade, and it is not uncommon for a man to hurt himself with the knife worse than he does the animal. Still the 5½-inch bowie blade remains popular with many hunters, and if they find it satisfactory it certainly is the knife for them.

All hunters have to have a knife for skinning, whether they have any other or not. This need not be heavier than a large jack-knife. The blade should be thin and about 5 inches long, handle 4½ inches. Of course, it should have the rounded point so desirable in skinning, and the blade must run through the handle and be riveted. No hunter who handles pelts can afford to be without a skinning knife, especially when it costs, with sheath, not more than \$1.50.

The real skinning knife is a trifle long and slender for general-purpose use, but there is a knife on the market that has most of the skinning knife's virtues, and considerably more strength. The blade is a half inch shorter, and enough thicker to carry strength for prying, or breaking sticks, bones, etc., with the back. Near the handle the back of the blade is checkered, which gives the thumb a good grip.

The folding knife has many good points. One sportsman who favors this style says that he finds the 4-inch blade best, and that it should have a bone saw on the back. The blade should lock, but the lock must be flush with the handle.

Most sportsmen concede that for all-round camp use, the army and navy knife



Camp Fire

is unexcelled. It has two good blades of different size, a can opener, a corkscrew, and a screwdriver. The latest ones, I think, are even more complete.

Knives should be kept sharp, clean and bright; and when not in use the sheath is the place for a knife. Observance of this rule will save many accidents.

L. E. EUBANKS, Seattle, Wash.

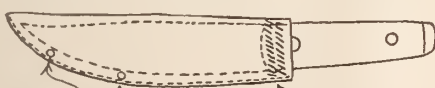
To Kill Insect Specimens

I HAVE quite a collection of butterflies and other insects which I collect in the summertime as a vacation hobby. A good way to kill them is to sprinkle a little strong dry mustard in the box with them. This acts very quickly and is always to be obtained.

C. H. WINDSOR, Ithaca, N. Y.

Shifts and Expedients

THIS is the way I clean my rifle when baggage is limited, to save weight. The rifle must be a take-down or one that can be cleaned from the breech. Say the barrel is 30 inches long, I get a one piece wire cleaning rod with bristle end, I cut this down three inches longer than half the barrel length, that is 18 inches. Then with a piece of fine emery cloth I work the rod down slick and smooth and close to the end I file notches. Now in cleaning my long black powder rifle, I scrub thoroughly with hot water, using the bristle end inserted in one end as far as it will go, then in the other end. For drying I make a loop in the middle of a length of cuttyhunk fishing line, tie a loop in one end and wrap a thin piece of lead around the other end for a weight. In the loop in the middle I put drying flannel and the string can be pulled either way through the barrel. For oiling the inside of the barrel I tie a patch of thin muslin on the end of the notched rod, after first wiping the rod perfectly dry. The inside can be greased just as it was washed, first one half and then the other. This is a make shift that is reliable.



RIVETS
STRIP OF OLD FELT HAT SEWN INTO TOP OF SHEATH TO HOLD KNIFE IN PLACE.

I made a good knife sheath out of a piece of leather cut shield shape and folded down the middle. The outer edges were held together by three rivets. Length of sheath to correspond with

length of blade and at the top of the sheath inside I sewed a piece of old felt hat; this keeps the knife in the sheath when you bend over. In the back of the sheath I cut two slits to let my belt pass through. This is a good sheath for the family or camp bread knife, as a sharp blade should never be without some sort of protection. If you have nothing better wrap the blade in a piece of paper before packing it with other cutlery. A dull bread knife is an abomination, as is any dull blade in camp.

There are many ways of caring for a gun in camp, but I never found anything better than the old idea of two crocheted sticks driven in the ground at the right distance apart, depending entirely on the length of the weapon. They can be whatever height is desired but have them high enough so that the dampness of the ground cannot affect the gun.



Do not make the mistake of thinking that because a gun is in its case it is always allright under any weather conditions. If the weather is damp for a few days take the gun out and look carefully for rust, for nobody is infallible and you may not have oiled the weapon as thoroughly as you think.

JIM FERGUSON, Englewood, N. J.

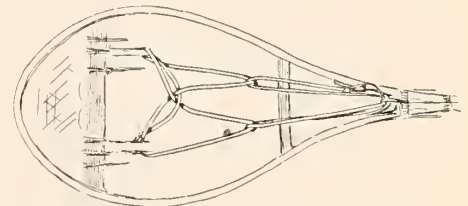
To Wash Fish Kettles

WE all know how the odor of fish penetrates everything with which it comes in contact, and that kettles or frying pans in which it has been cooked frequently pass the odor on to the next article of food cooked in them, unless especial care be taken. In camp we usually get enough of fish without flavoring other things with it. In a traveling camp one can scrub the pan with sand and then heat thoroughly until dry, but when in a permanent camp the following method is better: Let the kettle soak in cold water to which has been added a little dry ammonia or washing soda. This comes put up in handy packages that can safely be carried anywhere. Then wash clean, set on the stove with cold water and a little washing soda, and let the water boil gently a few moments. This will freshen it and remove all odor.

W. C. HOVEY, Gloucester, Mass.

A Snowshoe Harness

WE often see some brother's idea of a snowshoe harness so I will do my bit and the enclosed is the idea. The fault we find with most harnesses is with the buckles or tying. This affair



has neither and is readily adjusted. To put on the shoe drop it down sideways to you, put your foot through the loops, pull them up over the heel, turn the foot and shove the toes under toe strap and they are on to stay. To remove them do the same things on the reverse. This outfit will not ball up and gives you full control of your feet. The best shoes I ever found are made by a man in Maine. They are not only pleasing to the eye but will stand far more abuse than a pack mule. Snowshoes are to the man of the north like the life boat to the sailor, and no little care should be exercised in selecting the proper kind of the proper stuff to stand the grief of the trail.

JAY LEE, Wn.

Cure for a Sticky Line

THE following is the cure for a sticky line that I received from an English friend some months ago. In these days of difficulty in getting tackle and the increased cost thereof, the tip, I hope, will help some of your readers to get a little extra service out of their lines. Coil the line into a box or tin with a lid. Put in about half a teaspoonful of talcum powder (a face or toilet powder). Put on lid and shake the box or tin to distribute the powder over the line. Then pass the line through finger and thumb to force the powder into the dressing. Repeat if any stickiness remains. The line can be used immediately. It is about eight months ago since I treated a sticky line, and I have fished with it since. The line is now free of all stickiness, and there is no appearance of any harm having been done to the line. The powder when thus applied to the line is, I believe, non-soluble. If any of your readers try the talcum, I hope they will let us know the result.

R. J. B., San Francisco.



THE BORING OF SHOT GUNS

To the Editor of FOREST AND STREAM:

I HAVE seen much trifling discussion about the boring of shot guns. I am a victim in this respect myself. I have an old pattern 12-gauge 28-inch Ithaca with *right barrel* full choke and left nearly open. I took the gun to a gunsmith and had the right barrel bored out full cylinder. I call it the "game getter." Now the right barrel spits out half the load on the ground about twenty yards from the gun and the rest of the load goes on and does the work. It is a good piece of hardware, but with a leather cheek pad (it has a 3-inch drop and almost no comb) and $\frac{3}{4}$ -inch of American walnut glued onto the end of the stock, it is not handsome.

I have a Sauer \$125 grade ejector, 12-gauge, bought on condition that the right barrel should be made "improved cylinder." They had my money and the gun was sent down 14-gauge at the muzzle. Had it weighed one pound more it would have been a good gun on ducks. Its weight is $6\frac{1}{2}$ pounds. I took the advice of a dealer and had it bored out-cylinder. Since then it won't make a pattern with No. 8 shot at 20 yards!

Incompetency and irresponsibility are rampant and \$1.50 gross is sufficient inducement to a gun store man to ruin your \$100 gun. If you have a gun which shoots too close do the work yourself. Split a rod a foot long down about 5 inches; insert a wedge; wrap it 3 inches over the split part with cloth; oil this well; cover it with emery dust and turn it in the muzzle of the gun. Shoot it half a dozen times. Put on more wrapping and try it again. Sometimes this can be done with a clothes pin—don't hold me responsible.

My advice is never take all the choke out of a 28-inch 12-bore. I had a 30-inch 12, cylinder bore, which shot perfectly.

Everyone should know that the secret of the value of a choke is that it *retards the wad*. It has been demonstrated that, at 2 feet from the muzzle, the photograph of a load from a cylinder barrel shows the wad driven into the load; the load about $\frac{1}{2}$ inch long and *mushrooming over the edges of the wad*. The wad thus acts as a "spr-ader" and scatters the load. Photo of load from choked gun under same conditions shows the load $1\frac{3}{4}$ inches long with the wad following behind completely separated from the load. The lesson is that the wad is what spoils the shooting of the gun. If the wads were burned up just as the charge leaves the muzzle the cylinder bore would shoot nearly as close as the choke. The

LETTERS QUESTIONS, AND ANSWERS

shorter the barrel the more imperative is the necessity for some choke.

My theory is that in a longer barrel the shot charge *bounces off the wad* by its own inertia, when fairly started, as it gets going, thus freeing itself very slightly from the wad—just as a ball bounces off a brassy when you go through with a full swing.

I would like to see an experiment tried with, say, 36, 33, 30, 28 and 26-inch barrels. Thus we would find out the ideal length of cylinder barrels and the necessary choke for ordinary short ones. And we would know whether the hypothesis, that, as the load proceeds the relation between shot and wads changes, is correct.

As regards our old bored-out guns—can anything be done with them? I am looking for a metallurgist who can tell me whether he can produce an alloy which can be plated into the last three inches of the muzzle thick enough and strong enough to allow a reboring to the gauge required. I know of a 4-bore, single barrel, where the owner cut six inches off the muzzle, cut a thread on the barrel and screwed a choked piece on it from another gun, and the gun did good service.

What is the next new thing in boring? I have put the suggestion up to the two greatest American firms and am awaiting their reply.

W. M. E., Baltimore.

GROUSE IN MICHIGAN

To the Editor of FOREST AND STREAM:

YOU might be interested to know that the ruffed grouse are undoubtedly on the increase in this section. There is a closed season on them this year and if weather conditions are favorable during breeding season next spring and next year is also made a closed season, there will be good chances for this fine bird not to become simply a memory.

E. CHURCH, Houghton, Mich.

A SILENT COMPANION

To the Editor of FOREST AND STREAM:

JUST think of hunting and fishing with a fellow since the days of Rowland Robinson and never speaking to him. A

chap may have gathered in a life time quite a number and variety of old friends with whom he has caught various kinds of fish or hunted different kinds of game, and as he recalls them one by one he finds a warm spot for them all—each and every one whose companionship has contributed to make memorable a day in the woods or on the water. Such friends are all the good sporting magazines, old, tried, and dependable companions with whom month by month I have hunted and fished these many years. Of them all you are the oldest. From boyhood I have hunted and fished with you. You have taken me to all parts of North America with side trips to the tropics. You have taught me, exposed my faults and advised me in correcting many of them. You have consoled me in my perplexities and disappointments. And yet, ungrateful though it may seem, I have never until now replied to thank you or express my appreciation.

It is all of thirty-five years since I began using my first shotgun and devouring FOREST AND STREAM whenever I could find it. That was some years ago, but before I close I must tell you about that first gun.

I found it, abandoned by a departed tenant in the shed of a house belonging to my father. At least I had a gun of my own. The fact that there was no hammer was fully compensated by the discovery nearby of an old fashioned cobbler's hammer head. A stick for a handle and it was complete. I could find shot, caps and paper at home—only one difficulty to surmount, Father's powder was not accessible and orders not to touch it were strict. A happy thought—there was blasting powder, used to break up bowlders and split logs, in a tin canister in the store room. Too coarse? Well, there was the coffee grinder in the shed of the vacant house where the gun was found. Everything coming my way now. The old gun was cleaned with the long ram rod under the barrel—a strong blow at the muzzle showed the tube to be open. A small handful of powder well shaken to fill the tube—some paper on top—a half handful of shot—more paper—a few kernels of powder pricked into the tube, a cap, and hammer in hand we march out to shoot the first bird or beast—not particular what kind—large or small. New difficulties! Muzzle wobbled two feet each way. Further expedients required. A crotched stick solves the problem. And now we go forth to hunt. First victim a night hawk on a fence, range 40 to 50 feet. Crotch is set up, gun mounted, hammer extracted from pocket and banged down on cap. Puff!! Gun goes off—night hawk also. Air full of burning particles of powder and pa-

per. Keen disappointment, but renewed determination. More practice and then after several failures down comes a sparrow. We get closer to our game and shoot a "chipmunk." Then a "red-der," and an appetite which thirty-five years has failed to appease was created. I had a good time with that old gun, more than I've ever had with my good old Parker and that is saying something. All that fall I carried it when hunting up the cows, until my father discovered my cache in a dry place under a ledge beyond the lane where I could conveniently get or leave it together with my munitions and not expose it by carrying it through the lane.

Dad was a true philosopher. "Guess the boy is bound to have a gun anyway and I might as well let him use my light one," he decided.

So he gave me his light muzzle loader and instructed me in its care and use, and from that day he had only to look in the corner to know whether I was "hunting" or not. Thus with reluctant paternal consent and with remonstrating maternal protests I became a devoted follower of Nimrod of old.

Your health, FOREST AND STREAM. This should compensate for thirty-five years' of silence and merit thirty-five more.

Yours sincerely,

F. T. W., Wakefield, Mass.

Such an interesting letter ought to be our lot more often than once in thirty-five years. Your early experiences with five arms recall vividly some of our own. It is a wonderful thing for a boy to have a "Dad" who is a "true philosopher." The danger a boy runs from a real gun properly cared for is mostly nil, but there must be a special Providence who protects youngsters from the dangers of make-shift weapons. Glad to hear from you again.—[EDITORS.]

THE WOODCOCK'S WHISTLE

To the Editor of FOREST AND STREAM:

I N your October number, Mr. Wilber, in his article on woodcock, brings up the much-disputed question as to how the woodcock makes the whistling sound often heard, as they take to wing. Many articles have been written in the last twenty-five years and still as far away as ever from any positive proof.

More than twenty years ago I had demonstrated to me how at least one woodcock made the noise. The bird in question had been hurt in some way and picked up before it had revived enough to fly away. It was placed in a store show window as a curiosity, as few people outside of sportsmen have any knowledge whatever of the woodcock.

I secured this bird that I might liberate it on his native heath—that could be found a short distance away—and carried him along the street, having both wings closely pinned to the body with my right hand and left hand underneath, giving him no chance for wing action or body motion. Without a struggle or quiver of the body, it gave out the whistle through the mouth or throat.

I have often thought of giving this experience, knowing it would only likely happen once in a life time and then only to a very few. To me it was positive proof of how the whistle was made and so long as this one showed the way, it would be fair to assume the others do the same.

J. M. DINSMORE,
2804 Woodland Avenue,
Kansas City, Mo.

The question of the woodcock's whistle is almost as much and widely discussed as that of the grouse's drum. Glad to hear your opinion and experience in the matter.—[EDITORS.]

ALABAMA ANGLERS

To the Editor of FOREST AND STREAM:

I HAVE long been a reader of your journal and have at times noted mention of catches of channel bass, which is commonly called here in southern water red fish, larger ones are called bull reds.

I have just returned from a trip on Mobile Bay at Coden, Ala., and am enclosing you kodak pictures of catch made Saturday, October 19th, 1918—37 Bull Reds weighing from 20 to 35 lbs. each.



Party reading from left to right: Jack R. Connor, Birmingham, Ala.; E. L. Warner, Coden, Ala.; E. L. May, Tuscaloosa, Ala.; Duncan May, Montgomery, Ala.; Kirk L. Robb, Birmingham, Ala.

Yours very truly,
JACK R. CONNOR,
Birmingham, Ala.

A. C. A. CONSTITUTION AMENDED

To the Editor of FOREST AND STREAM:

THE American Canoe Association would appreciate it if you would publish the following amendment to the constitution, in your next issue:

Article IV, Section 2 (Present Reading)—Associate Members: Ladies may be elected Associate Members by the Executive Committee when proposed by a

member of that Committee, provided they are of the immediate family of an active member and have attended at least two general camps. Practical canoeists only are eligible and they may be elected only after publication as provided for active members. The Associate Membership may be revised at any time by the Executive Committee.

Change This to Read: Ladies may be elected Associate Members by the Executive Committee, when proposed by a member of that Committee, provided they are of the immediate family of an active member and have attended at least two camps—either general Association or Division camps. Practical canoeists only are eligible. The Associate Membership may be revised at any time by the Executive Committee.

Thanking you for your co-operation on this, I am,

Yours very truly,
OSCAR S. TYSON,
Rear-Commodore, Atlantic
Division, A. C. A.

INFORMATION, PLEASE

To the Editor of FOREST AND STREAM:

I WOULD like to have the experience of the boys who fish, in regard to wormy bass (I always skin all bass same as I do catfish, I believe they keep better and the meat is much sweeter) and I find quite a few are infested with worms, which lay just under the skin.

This I find is usually in bass caught in the streams, and I have found no one who can tell me any thing about it.

There is getting to be more respect for the Law in this part of the state, and we do not have so many violators; in other words the fisherman are getting to be sportsmen and not fish hogs.

I think it is the duty of every fisherman to appoint himself as a Deputy Fish and Game Warden, and report all violators, be it his own brother. Let us have game and fish, and in order to do so we must look at it from a true sportsman's view, not a question of meat, but recreation, true sport, good fellowship, and getting close to Nature. It will teach us to love our Creator more, and soften our hearts to all mankind.

Wishing FOREST AND STREAM success,
H. E. BINDLEY, Terre Haute, Ind.

THE FISH IN GULF WATERS

To the Editor of FOREST AND STREAM:

I AM a reader of FOREST AND STREAM and wish to say that I thoroughly enjoy reading it.

I especially enjoyed reading in October issue about the sheepshead. I am a great believer in outdoor life and spend most of mine fishing. I have caught lots of sheepshead in the waters around Mobile and here on Dog River within a stone's throw of our club. There is a fine meal in store for the one who can catch this fish and I do not know of any other that is better.

Let me suggest that an article written on the fish in the gulf waters would be very attractive to your readers. I am not a writer, by the way, however I do

know of the various kinds of fish around here.

Our club is situated on the Dog River about two miles from the mouth or where it enters Mobile Bay and that point is only about twenty miles from the gulf. The water around the club is fresh from November until June and from then on it is more or less salty. Just across the river from our club site two creeks enter the river, fresh water and quite clear. Around this vicinity we catch the following fish: black bass, bream, perch, croakers, sheepshead, speckled trout, white trout, red fish, cat fish. At the entrance of Mobile Bay and the gulf and Mississippi Sound we catch tarpon, mackerel, cavallier, pompano, black fish, drum and a few others that I cannot recall at present.

I thought it a wise suggestion to let you know that we have a fish country here and that the readers of FOREST AND STREAM would like to read about our own country in some future issue of your publication.

E. STEELE PARTRIDGE,
Mobile, Ala.

The article on the fish in gulf waters is in our files, Mr. Partridge, awaiting its opportunity to enlighten and interest our readers. Watch out for it! Thanks for your letter.—[EDITORS.]

FROM A SOLDIER'S MOTHER

To the Editor of FOREST AND STREAM:

IT is with regret I will have to ask you to discontinue sending me FOREST AND STREAM. On account of failing eye sight I am not able to read myself and my sons have all left home. But I want to say there have been no magazine we enjoyed as much as we did FOREST AND STREAM during the years that my boys have grown to manhood. Am enclosing a picture of my son Arno (who is now in Italy with the American Expeditionary Forces), with three wild geese that he shot on a little slaughter on our own farm right here in Du Page County, only 22 miles from Chicago. He was only seventeen years old at the time and believe me he was a very proud boy.

Thanking you for past courtesies,

MRS. D. H. UHLHORN,
Dorners Grove, Ill.

This letter from a soldier's mother has given us deep satisfaction. We are reproducing her boy's picture herewith. It gives us pleasure to know that he has not been deprived of the enjoyment of reading FOREST AND STREAM, although he has been at the front. Ever since America entered the war we have been supplying the Y. M. C. A. Overseas with as many copies of FOREST AND STREAM as they could handle and there has been hardly a hut but has had our paper to cheer the leisure hours of the boys.—[EDITORS.]

FOR THE BENEFIT OF OTHERS

To the Editor of FOREST AND STREAM:

I THANK you very much for the FOREST AND STREAM Conservation button which I received all right and I will try to merit the wearing of it.

My catches up to the present have been mainly "perch" and "sunnys" and

it has occurred to me that there might be others who were not too successful in capturing game fish—some like myself, who would like to know just how to do so, but are lacking in knowledge and in experience; hence, if the successful contestants, or better still, all those who really deserve honorable mention by having taken bass say of six pounds or over, would write a brief description, a few hundred words would do, telling of the places fished, the conditions of wind and water, location of the stream or lake with respect to weed beds, depth of water, sand or gravel bars, and other conditions under which their prizes were captured, and these could be printed for the guidance of the rest of us it could be of inestimable help to all novices who have no other teacher and would help us in learning how to turn the trick.

Thanking you for the conservation button which I prize not only for itself, but for what it represents at this particular time, I am,

Yours very truly,
MARTHA S. BATES,
Syracuse, N. Y.



Arno Uhlhorn, now in Italy with A. E. F.

AN APPRECIATION

To the Editor of FOREST AND STREAM:

ALLOW me to congratulate you on your November cover. It is a dandy, but you can't go wrong with Osthaus pictures. Only wish I could meet him and thank him for the pleasure he has given me. The first of his pictures I remember was a steel engraving that I saw in St. Louis, years ago, called "First Lessons," I think; a setter bitch and her pups, teaching the pups to point; doubtless you know it.

A friend's unbroken young setter came into the house a day or two ago, carrying with great pride a three-quarter grown ruffed grouse, or partridge as they call them here. It made a fine broil for supper last evening.

A week ago looking out of my window I saw a covey of 23 quail run across the road, through our hedge and down in our rose garden, first I have seen this year.

Did Osthaus paint a head of a setter, black, white and tan like the one on your cover, with a grouse in his mouth? I think I have seen one somewhere and thought it might have been on FOREST AND STREAM.

Our shore birds and ducks have been a failure this fall and a great disappointment to all the "wise gunners."

Success to the FOREST AND STREAM.

H. LINDLEY, M.D.,

"Northwood," Center Marshfield, Mass.

Thank you for your appreciation of the November cover. We are rather proud of our covers, ourselves, and feel gratified by the many proofs given us that our readers appreciate the best art in outdoor subjects.

A picture similar to the one you mention was reproduced on the cover of FOREST AND STREAM issue for April, 1917. This painting was by Percival Rosseau.—[EDITORS.]

BETRAYING KING CAT

To the Editor of FOREST AND STREAM:

IN the November issue Mr. W. L. MacIrath delightfully crowned the catfish king of the corn-belt states. He may be King Cat, fairly enough, but no king can rule securely without an army and navy.

Missouri is one of the provinces of the Corn-belt Kingdom and the thoughtful powers that be have a fully mobilized army and navy well trained and equipped to uphold the honor and dignity of His Majesty, the King.

Now, fully realizing the necessity of having a combination of strategy and fighting ability in command of his forces, King Cat has placed Admiral L. M. Bass in charge of his deepwater dreadnoughts. Rear Admiral S. M. Bass commands the gang-hook torpedo boat destroyers. Colonel Jack Salmon leads the "devil-dog" marines, while back in reserve is General Trout watchfully waiting with his ever ready Rainbow Division.

Yes, our king is well equipped to meet any invasion by land or water if King Caster, President Flyman, or the old diplomat, Secretary Stillfisher, cares to attempt it, and now with open disloyalty to King Cat the enemy is to be informed of the whereabouts of his dreadnoughts and destroyers.

Through wild, wonderful scenery tumble and flow sparking, dancing invitations to the angler who harkens to the call of the wilderness. Here he will learn that no gamer bass exist than can be found in the waters of our own Ozark Mountains. Creeks, small and large; rivers, big ones; and lakes, calm and deep; all stocked with game fish by nature and the government. These waters in the heart of the mountains offer the most ideal outing imaginable.

The bait caster, the fly-rod expert and the lover of "still" fishing will find this a paradise. The caster who prefers shore-line work will find an abundance of strikes that will test his skill to the ut-

most, for boulders and other obstacles must be evaded in leading the battler into the deep water of the eddies.

These deep, quiet pools are frequently a mile in length, with rugged walls of rock hundreds of feet high rising sheer from the water's edge on one side or the other. The bluff side changes from bank to bank with every eddy as the river twists its way through nature's great Elysium, and connecting these eddies are rapids, wild with savage laughter, where the water goes roaring and tumbling to the pools below.

In these rapids and in the whirl at the foot of each the fly man and the caster meet their match. A small-mouth bass hooked here will fill the angler's soul with wild, ecstatic joy. Nowhere do they strike more viciously nor fight with greater desperation. Performing like an outlaw broncho, going high, wide and handsome, they will force the angler to show a full box of tricks to save rod or line. The old desperado may finally be brought alongside apparently docile and submissive, but that will be a time for caution. The broncho most likely to turn your saddle into a hurricane deck is the wall-eyed brute that turns his head and eyes you indifferently as you reach for the stirrup. So with the bass of the rapids. If the seemingly out-fought rascal turns a lazy eye on you look out for heroics—he's a strategist as well as a fighter as many an angler finds to his cost.

Much light and often heavy tackle is useless in these wonderful, tumbling rapids, as anglers have frequently had heavy tackle snapped by some ravenous old "grand-daddy" that could not be even brought within sight. But that only adds to the call of the rapids.

Floating out of this turmoil through a channel of swift but quieter water you will find bank willows dipping into the stream at the lower end of high, clean gravel bars, and occasionally there will be great, deep pockets of "dead" water behind the down-stream end of bars between them and the bluffs which line the eddies. In these pockets and among the willows which arrest the side currents lie the voracious large-mouth bass known there as "line-sides." Just lead one of these catapulating monsters out of his lair with light tackle if you hanker for the joy of taming a submarine volcano.

For the "still" fisherman or the fly artist there is a lake, some twenty-odd miles in length, that will provide him plentifully with large perch, giant crappie—the two pound kind, and both varieties of the bass.

Some may say that "bass is bass," but having tried them north, east, south and west, at dawn, in daylight and at dusk with every known fly or lure, sneaked up on 'em in the dark with luminous bait, fought and "wrassled" with 'em under about every favorable and adverse condition, there is but one conclusion: King Cat's forces in the waters of these mountains immortalized by Harold Bell Wright in his "Shepherd on the Hills" furnish the gamest, craftiest, wickedest fighting bass that ever swam.

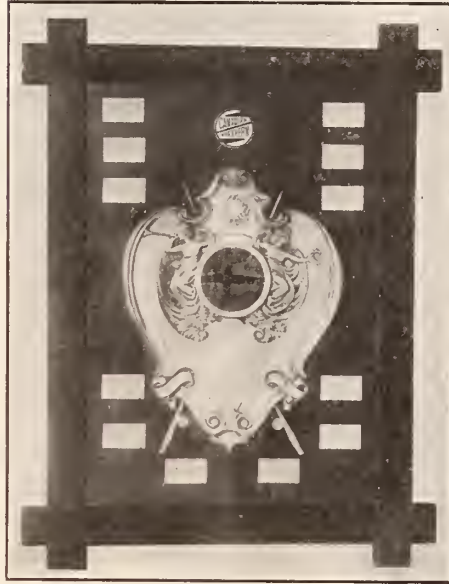
Yours truly,

GEO. D. HURLEY, Kansas City, Mo.

THE NIPIGON TROPHY

To the Editor of FOREST AND STREAM:

I DO not know whether you are acquainted with the fact that the Canadian Northern, this year, donated a trophy for the largest speckled trout (brook) caught in the Nipigon waters, which are now world-famed for their



1918 Nipigon Trophy, Won by W. W. Butler, of Montreal, Canada

trout fishing, and are annually visited by a large number of Americans. In view of Nipigon's popularity with American disciples of Sir Isaac Walton, I feel sure, that the following letter from W. W. Butler, of Montreal, the winner of the trophy, would be of interest to readers of FOREST AND STREAM.

Mr. Butler writes:

"My friend, Dr. K. Y. James and myself entered the Nipigon on Thursday, the 8th of August. We made the various encampments up the Nipigon with very satisfactory success and results, but more particularly at Camp Cincinnati where I secured the big fellow on a No. 18 single Cincinnati hook and cocotouche about two inches long. I struck him about seven o'clock in the evening in very swift water, but worked him over towards the western shore into quieter water, where I landed him about twenty minutes afterwards. Antoine Buchard, an old and well known guide on the river, was my head guide and in the canoe with me at the time, and on landing this fish he remarked 'he is a big one.' He weighed 6½ pounds and measured 23 inches length and 15½ inches in girth. I also secured one five and one six pounder just above Virgin Falls, and two 4¾ pounders at other places along the river, as well as many smaller trout.

"Fishing is my favorite recreation, although I enjoy motoring, hunting and a little golf, of which I would like more, but occupying the position of Vice President and Managing Director of the Canadian Car & Foundry Company, Limited, and its three subsidiary companies and having under my charge something over 8,000 men, gives me very little time for

recreation, and the time so taken I always devote to fishing, in so far as possible."

The competition for the trophy was a hard fought one, and Nipigon waters are visited by anglers from all parts of the continent.

R. CREELMAN, Winnipeg, Man.

A LONG LOST FRIEND

To the Editor of FOREST AND STREAM:

AT this time I should like to say that I have enjoyed FOREST AND STREAM very much the past year. Articles by the older gunners and riflemen are of especial interest to me. I have especially enjoyed those by Widgeon on the hunting that used to exist on the eastern coast. Also I think I have found a long lost friend in Captain Roy S. Tinney, at least when I attended Prep school in New York too many years ago, I knew a chap by this name that was nuts about guns. I have been for a long time going to write him and see if this is the same Roy Tinney. If it is he will certainly hear from me some day. If he happens to be handy just ask him if he recalls the time we tried out his new Colts automatic, over in the Jersey woods, I certainly do.

I am western bred, born and raised, and have a very western viewpoint, I suppose; yet my father sent my brother and myself to school in New York and we acquired an appreciation for the eastern woods and waters; each issue of FOREST AND STREAM brings to me memories of the happy days long gone by spent as a spindling boy in the good old staid east.

ALLYN H. TEDMON, Pueblo, Colo.

TRAPPING TIPS WANTED

To the Editor of FOREST AND STREAM:

ANY tips on lion or cat trapping will be appreciated by me. I am trying out everything I come across as they are hard to thin out. They have killed about all of the deer in this vicinity.

C. E. CHERRY,

Cherry Creek, Arizona.

Personally we have never had any experience in this work, but we undoubtedly have among our readers many who have, and are publishing your request in hopes that it will draw forth some communications on that subject that will prove valuable to you.—[EDITORS.]

THE SPORTING PARSON

To the Editor of FOREST AND STREAM:

I WAS very much interested in your November number of FOREST AND STREAM, and in your story of the All-America Bird Dog Championship. The "sporting parson out in Kansas," is the Rev. P. R. Knickerbocker, a very warm personal friend of mine who now lives here in El Paso. I hunt with him a great deal and there is no better sportsman living, and what he doesn't know about pointers and setters and their breeding, is not worth knowing.

G. C. T. PELHAM,

El Paso, Texas.

(SEVERAL LETTERS ARE HELD OVER)



Funny thing happened

the other morning in the Pullman dressing room. You know there is always one youth who tries to conceal that it's his first Pullman trip by getting dressed before six and then sitting in the dressing room for two hours, smoking, and taking up room needed for bags and suit cases.

One of these pests recently added light conversation to his other offences.

"I see you use Mennen's Shaving Cream," he said to me. "I was reading an ad about it yesterday, written by a wise guy named Jim Henry. He's a hot-air artist aw'right. Is the stuff any good?"

Then he caught sight of my name engraved on my bag, and the dressing room became less crowded immediately.

Since the Boss made me start writing these ads, over a million men have become addicts to Mennen's, and I suppose ten million have become familiar with my name from seeing it so often; yet I doubt if a hundred people, outside of my customers, know that I am Jim Henry, Mennen salesman.

It's a big satisfaction, though, to know that each morning a million men build up a creamy Mennen lather without rubbing in with fingers; using cold water if they like—and lots of it; and then enjoy the sort of shave that gives one a hunch that it's going to be a pretty good day after all.

"Jim Henry" may not mean much to you, but Mennen's Shaving Cream will mean pleasant shaves for the rest of your life if you will send 12c. for one of my demonstrator tubes.

Jim Henry

(Mennen Salesman)



RIFLES AND RIFLEMEN

THE TYRO'S PRIMER

CERTAIN TERMS, PHRASES AND IDIOMATIC EXPRESSIONS USED BY MILITARY RIFLEMEN ARE DEFINED AND EXPLAINED

By CAPTAIN ROY S. TINNEY

(CONTINUED FROM LAST MONTH)

TARGET TERMS

Possible—A full score—to eat up the target. To obtain every point the target can give—every shot a bull's-eye. On military targets the bull counts five points and a "ten-shot possible" is expressed "50 x 50," fifty points scored out of a possible score of fifty. On the decimal targets used for civilian competitions the bull counts ten points and a "possible" is indicated, "100 x 100." When expressing a score in numerals the first number shows the number of points made and the second number the highest possible score, for example, 42 x 50 or 82%, the score a man must average to qualify as an "Expert" over the "Militia" or Outdoor Small-bore Qualification Course prescribed by the National Rifle Association.

Bull's-eye—The black circular division in the center of the bull's-eye target. **Sighting Bull**—The circular black spot on the decimal and reduced military targets made large enough to permit being seen through the sights without eyestrain. The size of this aiming point is based upon the laws of optics and bears no relation to the graduations upon the target. **Scoring Bull**—The center of the sighting bull, indicated by a fine white circle invisible from the firing point. A bullet must either cut or strike inside this hair-line of white to count as a bull's eye. For example: The quarter-size reduction of the military "A" target, known as the "A-4," has a three-inch "sighting bull" and a two-inch "scoring bull" counting "5"; and the standard small-bore, decimal target for 100 yards has a six-inch "sighting bull" and a two-inch "scoring bull" counting "10."

Nipper, also known as a **Wart on the Bull**,—A shot that just cuts or touches the edge of the scoring bull, and while it counts 5 or 10 points, as the case may be, the larger part of the bullet hole is in the first ring, so that the print made by the ball just nips the bull and stands out like a wart.

Pin-wheel—A shot striking almost or exactly in the center of the bull's-eye.

Group—The cluster of shot holes made on the target. The accuracy of arms and ammunition is usually determined by groups of ten consecutive shots fired at the various standard ranges; i. e., 100, 200, 300 or 500 yards and the group is measured in three ways: (1) By a circle indicating the maximum spread, the diameter of this circle being determined by the distance from center to center of the two shot holes that are the greatest distance apart. A "two-inch group," means that the entire ten shots are inside of or

upon the circumference of a two-inch circle. (2) By a rectangle that will include every shot fired. This figure shows whether the greatest deviation was vertical or horizontal. (3) By the "mean-absolute-deviation" from the center of impact. This is a mathematical calculation that gives the exact degree of accuracy displayed and can not be expressed in a mere definition.

On the target—To get on the target or find the target. When sighting in a new rifle the most difficult thing is to so adjust the sights that the bullet will strike somewhere inside the target frame and on the paper, permitting the marker in the pit to spot the shot with a spotter or disk. Once this is accomplished the final correction of the sight adjustment is a comparatively simple matter.

Sight in—To adjust the sights of a rifle so it will hit where it is aimed over a given range under the existing conditions of wind, atmosphere and ammunition. This must be done by the shooter himself as the difference in eyes renders a standard sight adjustment impossible.

Disk—A long stick with a circular disk on the end, used by the marker in the pit for signaling the results of the hits on the target. The bull's-eye of the military target counts "5" and a hit there is signaled by placing a *white disk* over the shot hole against the black of the bull. A "4" or "center" is signaled by a *red disk*; A "3," also known as an "inner" or a "magpie," is signaled by a *black cross* painted upon a circular white disk, and a "2" or "outer" is signaled by a circular *black disk*.

Spotter—The man who, during slow fire, observes the target, usually through a telescope, and calls out the value and position of each hit made. Usually the result of each shot is announced orally and recorded on the black board or score card, and sometimes the spotting is graphically indicated at the firing line by pins stuck into a wooden target placed there for the purpose. The term *spotter* is also applied to an octagonal or circular cardboard disk, white on one side and black on the other, and pierced in the center by a wire or pin. When the target is pierced by a bullet it is drawn into the pit and the *spotter* is placed over the shot hole so that when the target again rises into view the exact location of the last shot fired is indicated by the *spotter*. If the shot is in the bull the white side of the *spotter* is exposed, if outside of the bull the black side is toward the firing line.

(TO BE CONTINUED NEXT MONTH)

Announcing
the **Abbey & Imbrie**
Fish Story
Contest

\$200 WORTH
OF

*"Fishing Tackle that's
Fit for Fishing"*

GIVEN
TO THOSE WHO CAN TELL
THE BEST FISH STORIES

- For the Best Fish Story - - - - - \$50.00 Worth
- For the Next Best Fish Story - - - - - 35.00 Worth
- For the 2 Next Best Fish Stories - - - - - 25.00 Worth
- For the 4 Next Best Fish Stories - - - - - 10.00 Worth
- For the 5 Next Best Fish Stories - - - - - 5.00 Worth

Thirteen Prizes in all to be selected from our 1919 Catalog, issued about April 1, 1919.

These stories may be true or not. They may be whoppers or actual substantiated facts. They can be curious or funny or exciting. But they must be about fish and fishermen. Let yourself go and tell them in your own way. Send as many as you like, but no story must exceed 700 words. Short stories are preferable, however.

CONTEST CLOSSES APRIL 1, 1919

Manuscripts cannot be returned.

In the event of more than one person sending in the same story the one telling it best will be given the preference.

Address all stories to

Abbey & Imbrie Contest Editor
c/o Baker, Murray & Imbrie, Inc.
10-15-17 Warren St., New York

NOTE CAREFULLY

Write on one side of paper only.

No fees of any kind are necessary to compete. Contest is open to everyone.

We are to be sole judges in awarding prizes.

Winning stories are to become our sole property for publication in booklet.





ITHACAS WIN

15 State Championships this year. This is Dr. F. H. Allen, Staples, Minn., the amateur champion of Minnesota for 1918. He could not have won with any gun but an ITHACA.

Any man can shoot an ITHACA better. Catalog FREE.

Double hammerless guns, \$32.50 up.
Single trap guns, \$100.00 up.

Address Box 25
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UP LOSSMAN'S RIVER

(CONTINUED FROM PAGE 17)

IT was Johnny Billy who, seated on the Mae's hatch, related the story of Dr. Tiger. When this good Indian was a young man, he left his Everglade home and went to school at Carlisle. He would be progressive . . . he would lift himself high above the sordidness of his environment . . . he would return some day and prove a benefactor to his race. They said of the young Seminole, that the lips of the Great Open called to Doctor Tiger in a brief span. He learned his trade of medicine and with many closely guarded boxes and cases, trailed back down the coast and up Lossmann's River, then a rarely traversed stream in a vast, virgin territory. But his tribesmen were on every hand. And Doctor Tiger built a shack in the solitudes of Fifth Lake, later to be named for him. Here, on a shell island, a recluse, he lived a life of usefulness. Indians for miles about came to Dr. Tiger when they were desperately ill, or had their younger friends call for medicine. Often, at twilight, after days of travel, the cypress canoes would steal solemnly across this hidden lakes, bearing the limp forms of Indian children. And Dr. Tiger NEVER refused aid.

Finally, in 1912 breath and the divine spark left his weary body. For Doctor Tiger died of consumption, a martyr to his own wonderful ideal.

"Johnny Billy says . . . this place make him very sad," declared Hendry, "he know Dr. Tiger . . . love him much . . . something makes him think of things his ancestors tell him . . . first came Spanish—and they fight Indian . . . then come English—they fight Indians . . . then come America white man . . . and THEY fight Indians, worst of all. Sometimes fight each other . . . His great grandfather came in big boat and land at St. Augustine . . . old fort San Marco. Johnny Billy says that Everglades dry up like sponge with no water and then last Seminoles die. Maybe E-shock-e-tom-e-see (The supreme Ruler or White Man's God) fight Indian too."

But suddenly the drooping figure on the hatch was raised to a supreme height and the proud head reared upward, and Johnny Billy, in all his tribal pride and dignity, motioned that he must be on his way.

They gave him money, and a jug of wyomee and a new pocket knife, and he put off in the cypress canoe. Both dark hands flattened upon Hendry's palm, as he looked him full in the eyes. There was much of the kindred spirit in these two . . . and a Seminole NEVER forgets.

In silence, John, Mr. King and the guide stood at the farthest extremity of the shell mound, watching . . . watching, until Indian and canoe had melted into shadowland far across Dr. Tiger's Lake.

(TO BE CONTINUED NEXT MONTH)



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NIGHT SHINING AMID FLORIDA SWAMPS

(CONTINUED FROM PAGE 11)

being at the prow of the boat and the light right for the dark waters, I saw the 'gator rise without a ripple, much as a salmon will take a fly without breaking the surface. I saw the barred sides and the clear outline of Mr. 'Gator, but I beat him to it by a yard, for as the boat swept over him there came the familiar surge, this time with a splash, and puddle, as it happened in the swamp before. I knew then that the camp boss had said sooth—these were 'gators, without doubt.

We bagged a seven-foot one on the edge of a deep irrigation ditch. My comrade had wounded it with a charge of buckshot fired from an old-fashioned, rusty gun, and it lay there dazed. One of the range riders rode up just at that moment when I raised my gun to fire. He opined that I could not kill the 'gator with a shotgun. But, just for fun, I pointed the left barrel 'gator-way and turned her loose. That load tore the whole upper part of the skull away, leaving a semi-circular hollow as big as your fist. In one sense it didn't kill the 'gator; for we dragged him a mile to dry land and skinned him while he clawed to the end. We cut out his tail from the carcass, and that moved. We carted the fragment of tail all day in my hunting coat pocket, and that night as we fried it, it wiggled in the pan!

Again, I say, this is simple fact. And any man who has killed eels or catfish will not doubt it. A 'gator is very tenacious of life, but just the same, a charge of buckshot fired at close range from a modern choke-bored barrel will simply plumb ruin any 'gator. It tears a terrific, jagged hole right through the tough hide. Where my comrade's buckshot fired at the same range were flattened inside the skin, these went right on and split even the head bones to fragments.

BUT come back to night shining. Imagine that vast swamp covered with weeds and water hyacinths, with here and there open, black water. Imagine mile after mile of everglade, and the clear carbide lights shining out in the mysterious tropic swamp. Here a mud hen scuttles across the light. There a sleeping bunch of ducks; again, herons of half a dozen kinds hop sleepily along, or a great whooping crane flutters and rattles through the beam. Till there, you see a big, rose-colored diamond flinging back the sparkle of the beams, and through the halo of light, what do you think that is? Just a floating chip of dark wood, with another about eighteen inches behind it. That's all I ever saw of a floating 'gator.

Now turn your best barrel loose, and with a mighty roar that reverberates through the night and swamp the gun speaks out its death note. But all you get that night is the splash and thrashing of a smitten reptile, for he sinks. But the magic of the swamp entralls you. Winding in and out, seeing the wild life flutter or fly before you. Hearing the night sounds, all strange to the unused ear, feeling the mystery and beauty of

it all. Only when you retrieve next day, one out of every half dozen, do you realize what a real old he 'gator can be. I wanted to swim in the cool water during the hot hours of the day. A header from the trestle seemed just about right. After seeing the eloquent smile of a dead 'gator, I was curiously glad I had resisted my temptation for a bath.

Still we did find places where we would see and retrieve. In the shallows or in the irrigation ditches stretching across swamp or prairie. Here a big pink diamond, apparently the size of a duck egg, shines out in the beam. I tried to follow one up close to see how near I could get. But Mr. 'Gator is by no means asleep. Sometimes we could get within a few feet, usually not nearer in the open than twenty feet. The least noise, and the red diamond simply disappears. No sound or ripple or splash, the 'gator just ducks under what bit is out. For if you will remember, his frog eyes protrude, the tip of his nose also, and perhaps a little bit of his head. But even of a huge 'gator floating so, you see no more than you could cover altogether with your two hands. It is at the pink diamond you shoot. And here in the ditches small 'gators, four, five to seven feet long, were rather common, and small 'gator steak tastes like fish, a mixture of halibut and scallops. As a food article 'gator is fish, and not half bad at that. As a game bird, he is a pink diamond shining with mysterious light in a magic beam that cuts fairy swathes of light in a semi-tropic swamp of wonderful beauty. As a tourist's sight, he is a log lying in the mud and sunlight. But if you ever chance to get him on a fishing line, as one of our crowd did, then he is the most interesting cuss you ever handled in a small tippy boat.

ALL things considered—shining by night is a fairy experience, not so much, in fact, not at all, for the dead bag, but for the mystery and loveliness of the night and forest and stream.

Many such days and nights we had around the camp. Vividly as I sit thinking, the scenes come before me. Yet when on the last day I came out on a hand car, in a twenty-mile race with our first rainstorm since the freeze-out, it seemed again a dream somehow come true. And when after two nights in the sleeper, I dropped off at the home place and waded knee deep in snow, I remembered the sendoff and smiled. For we started out in a snoring Winter gale, and came back in one. But between those two storms lay an enchanted month among the palms and orange groves, with the whirr of quail wings, the song of mocking birds, the "quit, quit" of turkeys, the bellow of 'gators, and the spitting fire from the 'coon's eyes. And as I sit with old Lem dreaming beside me while I write this—I register a determination that come what may, I must have another month some time among the palm and orange groves of wild Florida.

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A HOLIDAY HUNT FOR A TURKEY DINNER

(CONTINUED FROM PAGE 13)

we came to a long line of this scrub and turned to avoid it. We had passed all of the numerous signs of the turkeys and had been saying that probably the bunch must have made off towards the river, perhaps crossed to the other side, as they frequently do when alarmed, when we saw a flutter at the point of a narrow bunch of palmettos about thirty yards ahead of us. Tom ran directly in and attempted to force through the thick, leafy growth while I ran out to get a better view below the point just in time to see a single turkey rise and go off up through the pines. A great live-oak sent out wide spreading branches just in front of him and long gray moss was swaying in most graceful festoons from above. What was more in evidence just then to my eyes was a glorious big bird getting away at a fearful rate and into mighty thick cover up among the tree-tops. The right barrel spoke as he swung into the oak top and while I knew I had it on him, as I pulled, too much bark flew from the oak limb to feel very sure of seeing the bird come down. I wondered why Tom had not shot for he was rather closer to the bird than I was, but it transpired that as he went into the palmetto patch he became tangled in a heavy bamboo briar and was out of the chase for the time being.

GAZING very longingly at the bird as he came out past the big oak limb and pendant moss I thought there was still a chance for me before he closed from sight in the thicker tree tops. Just a narrow opening showed and he was headed right for it.

Of course it wasn't two seconds, but it seemed much longer until I *knew* he would show up in that opening; and while it was a long shot, the left was full choked and he had some of the 4's in his neck and head in time to stop his course before he got clear of that live-oak.

It seems almost incredible how such a heavy body can acquire such speed in so short a time with wings of such shape. There is no sudden whir-r-r-r of wings when the bird arises, as in the case of quail and grouse, and seemingly only a little tremor or fluttering as they go off; but they are no laggard, as will be found when it comes to stopping them in full flight.

This one proved to be an old gobbler, a beautiful specimen and in prime order. Of course he was not of the company we had hunted earlier in the day, for during the winter season the gobblers are found singly or in small flocks—sometimes two or three together.

We found a few places where this one had been scratching near where we first saw him and he must have been hungry for his supper to have permitted so close an approach. Rarely indeed is one taken unawares on the ground except in late winter and early spring when they are

gobbling, and even then it takes a most skillful hunter to get within shot after they have flown down from their night's roosting place. Far easier is it to walk on an old fellow just before sun-up as he sends forth his far-sounding love notes from a pine limb knowing that the members of his harem are within hearing of his mellowed call. Here his mind may be so fully occupied with conjugal affairs that for the time he may neglect things more earthy and so fall an easy victim.

HUNTING COMPANIONS

(CONTINUED FROM PAGE 12)

the lazy Ohio hills.

"Yes, they are the real bluegill, with a flavor unlike and different from other bluegills," agreed Pardner.

"The others are nice fish, though. Do you remember that big bluegill fry we had over in Canada when we camped in a pup tent on the Teal Bay Sandbar? That was a three day fish fry for you."

"How about the six days of fried muskellunge and bass, up in the Kawar-thas, in that same pup tent?"

"Well," said Pardner, "a beef steak begins to taste mighty good after fish for six days."

Whereat I remembered the story of Captain Vreeland as he told it to me down in Florida. I quote the Captain:

"There used to be an old fellow here that ran a tourist's boarding house. He would agree to keep his guests for two weeks, but no longer. However willing to stay they were, the old man would make them pay up and go at the end of two weeks.

"But we want to stay longer than two weeks," chorused one party, 'why must we go before we are ready?'

"Whereat the old man explained as follows: 'All we feed guests here is fish and canned stuff. Now, most people can stand that for a week. Some of them can stand it two weeks, but any man who can stand it to eat fish for over two weeks, is a damn hog and I won't have him around.'"

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It is not in any way a book for boys only, for it appeals to the boy that lies near the surface in every outdoorsman. It can be obtained from the Book Department of FOREST AND STREAM at the publishers' price, \$1.35 in cloth binding.



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THE FIRST REQUISITE OF THE ANGLER

(CONTINUED FROM PAGE 21)

New Jersey coast have been a result of this bait. It has one special merit: When going on an extended trip where there is the possibility of other baits—becoming hard to procure, a pailful of this, cleaned and salted, will often prove of the utmost value, as it becomes quite firm in brine, and will keep indefinitely. Channel bass take it freely as well as almost every other species of fish.

SHRIMPS

It would not be proper to pass by without mention this valuable subject. Its merits are well known to all bay and river fishermen, but to the surf caster it is of no value as it will not remain on the hook. On making the cast the energy put into the cast always whips away this soft specimen and is never considered in this category. Mussels too are fair bait under certain conditions, still much the same is to be said of them.

IT PAYS TO TRAP

WHAT buyers who attended say was the largest fur sale the world has ever known, both as to quantity of furs sold and the financial results was held in St. Louis during October.

In the six days it lasted sales totaled \$6,004,000, or an average of more than \$1,000,000 daily. In addition, transactions among the buyers totaled more than \$2,000,000 and it is estimated that more than \$10,000,000 was involved in the week's trading.

Sixty-four kinds of fur—known to dealers from every part of the world, were listed in the 350 page catalogue of the sale. They comprised more than 3,500,000 pelts, divided into 110,000 lots for the convenience of buyers. Every state in the Union, every province in Canada, and twenty-five foreign countries contributed to the catalogue. Each pelt had to be checked, entered, graded and catalogued. St. Louis gradings and lottings are quoted and accepted as standard wherever furs are bought and sold.

The demand for all kinds of furs was unprecedented during the entire week, a demand that was voiced by dealers from all parts of the world and from every class of trade and many varieties sold for record prices. Muskrat, a fur that sold a few years ago for a few cents a pelt, sold as high as \$2.25, while a record price of \$11 for skunk was reached. Another fur that sold higher than ever before was lynx, the record skin bringing \$85. It was later sold for the benefit of the Red Cross and brought \$1250. Fisher sold as high as \$102 and marten at a top price of \$81.

Buyers and brokers say the record prices made in all but two or three of the furs may not stand long. They look for prices to increase rather than to diminish. The opportunity for the small trapper to make considerable money was never better than at the present time.

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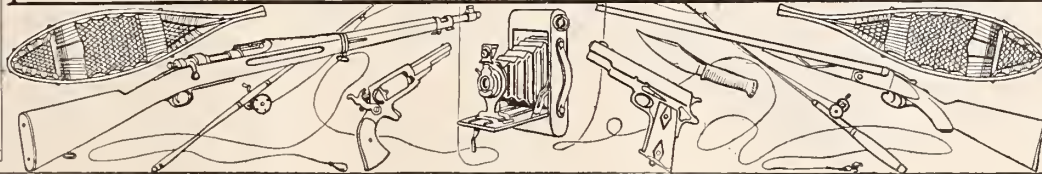
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HOW TO USE BAITS IN TRAPPING

(CONTINUED FROM PAGE 19)

feeding the fur bearers months before a set is made. When this is done, the animals get used to coming to the places for what they want to eat and in a way, seem less shy of man and human odor. Consequently, when traps are located, good catches can be expected.

There is no bait to compare with that made by taking the generative glands of the animals—both male and female may be employed, but the latter is preferable—and squeezing the contents into alcohol. But a small quantity of the preservative is needed. While the attractor is best when the sacs are obtained during the mating season, they can be used nicely other times as well. The glands from the mink can be made into bait for the mink; those from the muskrat for the muskrat. I do not mean that other animals will take no notice of a different kind of odor from their own, but as a rule, it is best to have a single decoy for each.

Crows, hawks and jays, are worthless as attractors for the smaller animals. It seems to matter little whether they are plucked or not. Even the skunk and civet avoid them unless very hungry.

Meat which has frozen and thawed several times, loses its power to draw fur bearers, especially the smaller ones. So far as possible, decoys should be kept fresh. It is not necessary, however, to change them each morning, but after they have been left for a week or ten days, fresh baits are recommended. In placing these, it is well to note carefully the signs which may be nearby. Perhaps the set itself ought to be moved to a different location. The observing pelt hunter can tell by the tracks and other indications.

THE one who uses lures, either natural or artificial, must keep constantly experimenting. What is good for one animal in a place, might not be in another only a short distance away. Again, in the fall of the year a carrot could be best for muskrat; two months later in the same place a potato. So far as possible, one must employ common sense in his selection of attractors. For instance, if raccoon have access to fields of corn the best results could not be expected with it for a bait.

Not only is it an art to know when to use a decoy and what to employ, but how to arrange it. To illustrate, it is not necessary to have a piece of muskrat flesh staked along a slide for mink. The meat will cause them to be suspicious and in a place where fur could be expected, no catches made. In the case just mentioned, the draw was of the right kind but unnecessary.

Another illustration comes to my mind which serves to show that for the more cunning animals at least, great care ought to be observed in having the attractor appear natural as to location. Suppose the trapper is after raccoon and has made up his mind to conceal a set



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near a small log extending into shallow water. The beginner would be apt to put a fish on top of the log, but the experienced pelt hunter would arrange the bait with sticks so it appeared it washed there, ready to feed the animal. Details must not be slighted if one expects big pay for the time spent on his line.

When arranging meat lures for mink, it is best to have it above the water. If craw-fish are selected, anchor them among stones in riffles where the fur bearers naturally expect to find them. When the head of a rabbit is employed for weasel, place it so as to give a lifelike appearance.

Never leave boot marks around traps. Eradicate them so far as possible. For mink and raccoon, human smell may be destroyed by dashing water over that with which the hands have come in contact. However, remember if a scent is used, it must be placed last of all, otherwise one will wash it away.

Rain affects most of the artificial baits. A heavy downpour will cause even the best to be worthless, for the odor vanishes. Let me add, too, an injunction never to pour such decoys on the ground. A twig dipped in the mixture is ideal.

SOME trappers skin the animals they catch while covering their line. This saves them carrying the heavy and in many cases, soaked carcasses. However, when this is done, never leave them for the others to feed on, for if this is done, baits will not prove as effective as they otherwise would. Once in a while, however, it is a good idea to locate small bits of flesh at promising spots to see whether they are disturbed or not. In case they are, likely places for sets can frequently be had.

The young pelt hunter often does not stop to consider that meat too near houses may draw dogs and cats instead of fur bearers. Again, crows and hawks frequently molest flesh when it can be plainly seen. It is best to cover such attractors lightly with brush or weeds. When this is done there is less chance of it being stolen.

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THE Federal migratory bird treaty act regulations prohibit throughout the United States the killing at any time of the following birds:

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The publishers of Forest and Stream desire to inform the public that it is impossible for them to assume responsibility for satisfactory transactions between buyers and sellers brought in contact through these columns. This applies particularly to dogs and live stock. In transactions between strangers, the purchase price in the form of a draft, money order or certified check payable to the seller should be deposited with some disinterested third person or with this office with the understanding that it is not to be transferred until the dog or other article that is the subject of negotiation has been received and upon examination found to be satisfactory.

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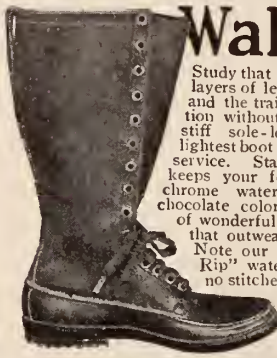
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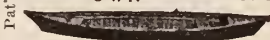
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AMENDMENTS TO BIRD TREATY ACT

THE United States Department of Agriculture announces the promulgation of amendments and additions to the Migratory Bird Treaty Act Regulations.

Hereafter the open season for black-bellied and golden plovers and greater and lesser yellowlegs in Texas will be from September 1 to December 15. Another change prescribes a daily bag limit of 50 sora in addition to the bag limit of not to exceed 25 for other rails, coots, and gallinules.

An amendment of Regulation No. 6 has the effect of removing the limitation on the number of birds that may be transported within a State during the Federal open season. The export of migratory game birds is limited to two days' bag limit during any one calendar week of the Federal season. Persons must comply with State laws further restricting the shipment or transportation of migratory birds.

An amendment to paragraph 2 of Regulation No. 8, which is of great interest to breeders of game, permits migratory water fowl raised in domestication to be killed by shooting during the respective open seasons for waterfowl, and the sale thereof subject to State laws; but after March 31, 1919, such waterfowl, killed by shooting, can not be sold or purchased unless each bird, before attaining the age of 4 weeks, shall have had removed from the web of one foot a portion thereof in the form of a "V" large enough to make a permanent well-defined mark, which shall be sufficient to identify it as a bird raised in domestication.

Another amendment provides that the plumage and skins of migratory game birds legally killed may be possessed and transported without a Federal permit. Provision is also made for the issuance of special permits authorizing taxidermists to possess, buy, sell, and transport migratory birds.

Two new regulations have been added. Regulation No. 11 provides for the issuance of permits authorizing persons to sell migratory game birds lawfully killed and by them lawfully held in cold storage on July 31, 1918. Such birds may be sold under permit until March 31, 1919.

Another new regulation is as follows: "Nothing in these regulations shall be construed to permit the taking, possession, sale, purchase, or transportation of migratory birds, their nests and eggs contrary to the laws and regulations of any State, Territory, or District made for the purpose of giving further protection to migratory birds, their nests, and eggs when such laws and regulations are not inconsistent with the convention between the United States and Great Britain for the protection of migratory birds concluded August 16, 1916, or the migratory bird treaty act, and do not extend the open seasons for such birds beyond the dates prescribed by these regulations." This regulation is a restatement of the substance of section 7 of the migratory bird treaty act, and is intended to remove the confusion and uncertainty that exists in regard to the effect of the Federal law and regulations on State game laws.

DUCK SHOOTING ON THE BORDER

(CONTINUED FROM PAGE 19)

a pleasure to see the dog tense all over, his eyes shining, and his ears pricked up as much as to say "Here they come, let's open the season right." At the crack of my double the dog lit twenty feet from the bank, and proceeded to retrieve both ducks at once, which is rather remarkable when you figure the size of the sprig duck and the mouth of a Chesapeake. However, he seemed to understand the exact procedure, because he first picked up the whole body of the first bird in his mouth and then tried to pick up the other bird. Finding this would not work, he dropped the first bird, went over and picked up the second bird and brought it over to where the first bird had fallen. He then tried to pick up both birds in his mouth, and in his attempt tried to put the bodies of both birds in his mouth at once without success. He then dropped both birds and looked at me in a wise sort of way, and barked several times. I encouraged him and all of a sudden he seemed to get the idea for he picked up the head of the first bird in his mouth and then the other, and came trotting into the blind as proud as could be, wagging his tail and seeming to say "It was a hard proposition, but we figured it out."

FOR about an hour, my friend and I kept the birds busy working back and forth between our two ponds, and it was very excellent shooting.

I have always said that the teal duck is, next to the mud hen, the most foolish of wild ducks that fly, and desiring to prove this again to my entire satisfaction, I permitted a flock of about ten teal to alight in my decoys. I rose up without firing, let them see me when they were only about fifteen yards from me. They immediately took to the air, circling up to the far end of the pond about one hundred yards when I took cover, they circling the pond twice, and lit back in the decoys about fifteen yards from me. I jumped up again and fired on them when they left, flew about a mile, then turned around and came right back to the decoys again, upon which I fired dropping one. I just put this little digression in to show the action of teal ducks in the range country here. All the other ducks are as wary in this section as in other places with the possible exception of the spoon bill who is more or less wooden headed, like the teal.

As I said before, I quit shooting after about an hour, having twelve ducks, and wanting to get home for the evening. My friend came back from the big lake with fourteen birds, and we started back for Marfa, after having had a very enjoyable shoot. It was enjoyable indeed to me because it was the first opportunity I had had to get out and do any duck shooting in the last three years.

There are plenty of birds in this section now but not nearly as many as there will be in November and December. We passed four coveys of Mexican blue quail on the road going in, each covey having

from twenty-five to fifty birds. We did not disturb them as the season on them is not yet open. Previous to this I had seen a number of coveys of young birds, just able to fly. Right in close to Marfa, the quail shooting I do not believe will be especially good on account of the long drouth just broken by this fall's rain. However, down towards the Rio Grande, between Candelaria and Bouquillas, I believe there are any number of coveys of blue quail, in fact, I have received reports that they are very thick.

Interspersed amongst the coveys of blue quail one often encounters what is known in this country as a fool quail. They approximate the Bob White in color and size, having a sort of checkered breast. These quail will lie at your feet until almost stepped on, and will then fly a very short distance. They are practically the only quail in this country on which a man can work a dog and not drive him crazy.

Down towards Glenn Springs and Terlingua in the Chisos Mountain country I have seen numbers of deer signs and also quite a number of deer. I am sure that when the season opens, I will be able to go into this country and be almost certain of bringing back a buck. The ranchers in this country tell me that in the low foothills of the Chisos Mountains, which are about eighty miles south of Marathon, Texas, there are numbers of black tail deer, and up on the Chisos themselves any quantity of white tail deer. In fact, a Mr. Daniels who has a goat ranch up on the top of the Chisos Mountains requested me to come up and hunt there as the white tail deer were eating up the salt set out for his goats practically as fast as he could put it out.

It is a beautiful trip from Marfa to the vicinity of Glenn Springs by automobile, travelling about one hundred and forty miles through all kinds and description of country. Leaving Marfa one takes the road following the railroad track to Alpine, a small town twenty-six miles east of Marfa on the S. P. railroad. Passing through range country, etc., over Paisano Pass, the highest point on the S. P. Railroad between New Orleans and San Francisco. The altitude is approximately five thousand feet. Arriving at Alpine, one goes south on the road towards Terlingua, going through the foothills across wide open flats covered with grazing Herford cattle, passing through innumerable dry arroyos, and now and then encountering a running spring. Along this road one encounters the familiar figure of the Mexican freighter hauling his supplies from Alpine to the Chisos Mining Company at Terlingua, Texas. The freighter is a picturesque Mexican having a large wagon drawn by ten or twelve small burros, the Mexican riding one of the wheelers. All along the road one encounters their camping grounds where they lay up for the night, and where they feed and graze their stock.

About thirty-five miles out south of Alpine, one begins to encounter the flat

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country and innumerable patches of rocky desert country. Interspersed between these desert sort of patches are little arroyos, some of which have a few cotton wood trees. About sixty miles south of Alpine, you leave the main road cut off to the southeast on what we term the Red Bluff road. The Red Bluff road follows down through a valley which varies in width from a quarter of a mile of two miles, and in places makes excellent grazing country. Other places you find rocky and sandy.

About fifteen miles on the Red Bluff Road you encounter the first foot hills of the Chisos Mountains, and from then on it is a continuous up and down until you arrive at a point about a mile north of Point Gap. From then on the road runs through a practically level country covered with chapparal and brush.

About twenty miles from Glenn Springs, one encounters the Glenn Springs-Marathon road, and from here on down the country is rolling with some steep grades. About twelve miles out of Glenn Springs you pass a little schoolhouse set up on a hill at a place known as Dugout Wells. On one of my trips through the country, I asked the school teacher how many students she had and she said it varied from seven to twelve, but that she expected one rancher's family was going to move out, and then she would only have about four or five students. It struck me as quite a remarkable thing as showing the extent of our educational system in this little schoolhouse way up in the mountains, only one house near it, and the children coming from distances up to twelve miles.

At Glenn Springs, one finds a wax factory, the wax being made from boiling a weed known as Candelilla. The weed is boiled in a solution of sulphuric acid, which causes the scum to rise to the surface. This scum is scraped off, dried and hardened into wax. I understand a great deal of this wax is used in coating insides of shells for ourselves and the Allies, and also in the making of phonographic records.

The Chisos Mountains are as rugged and rough as one could wish, and one finds innumerable white tail deer and just below the mountains in the foothills any number of the larger black tail species known to this country.

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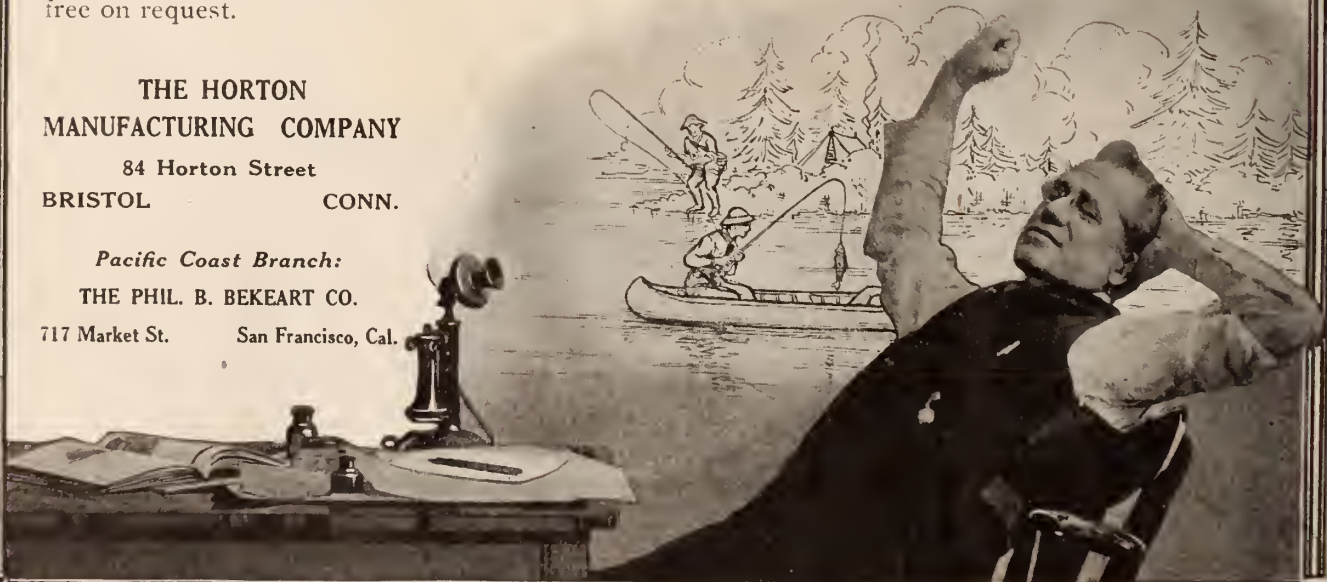
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HUNTING THE IRISH RED DEER

THE WILD DEER OF THE IRISH MOUNTAINS IS A GLORIOUS ANIMAL, WHOSE BEAUTY AND EXTREME WARINESS MAKE HIM A NOTEWORTHY OBJECT OF A HUNTER'S AMBITION

By SIR THOMAS H. GRATTAN-ESMONDE M. P.

FOR several years I have been reading *FOREST AND STREAM* with its fascinating stories of North American hunting. These stories appeal to me all the more strongly, inasmuch as I too have felt the irresistible call of the wilds. I have followed your forest tracks; navigated your lakes and rivers; climbed your mountains; "called" your moose; and hunted your deer and caribou. And as one who has lived the life best worth living—the life of the hunter in many countries, I appreciate the service your admirable magazine has rendered, and will I trust long continue to render, to the cause of real genuine sport.

The primeval hunting instinct is not the monopoly of any race or of any country. It is the attribute of the best types of manhood, even in our super-civilized days. The hunter, whatever his nationality, belongs to the most widely distributed brotherhood of men in existence; a brotherhood whose natural inclination leads them to help and to inform one another. And therefore I think, that your readers may care to know something of one kind of hunting in my country, which can compare for interest and difficulty with anything of its nature in the world. We have neither moose, nor Virginia deer, nor caribou in Ireland; but in our wild Irish red deer we have a glorious animal, whose beauty and extreme wariness make him a noteworthy object of a hunter's ambition.

Unhappily he is very scarce and is becoming scarcer. But in the mountains of Kerry and in the Western district of Mayo he is still to be found in his primitive state. And it is into this latter region that I shall ask those of your readers, who covet an Irish red deer's head, to follow me. The stalk is not an easy one, but it is well worth the effort.



The author, ready for a day on the moors

OUR headquarters are a comfortable stone-built cottage, named Altnabrocky (in English, The Hill of the Badgers), standing in the centre of a wide stretch of bog, or barren, as they would call it in Canada, on a bend of the little river of the same name. We have laid in a stock of provisions of the usual Canadian type; and we have besides a plentiful supply of turf for fuel, cut from the barren outside.

The party consists of the keeper, or guide, William McAndrew, a thorough

sportsman; a friend of mine, a notable fisherman, whose chief concern however is with trout and salmon, so I leave him to his fishing and he leaves the deer to me; and Mrs. McAndrew, the keeper's wife, an estimable lady, who undertakes our housekeeping, and whose excellent potato-cakes (a kind of scone or damper), are triumphs of art.

The river is about 100 yards off. We have to ford it every time we get to the moor. If the water is too high, we cross it on the back of an admirable donkey, whose main occupation seems to be carrying people across and back again. When the donkey grows tired of playing Charon, he wanders off and until he reappears there is no crossing the river dryshod. Sometimes there is no crossing the river at all. It has grown to the size of a flood with the rain from the hills, and its brown swirling waters are nearly up to the cottage door. Then, as after a South African rain storm, we must wait until the water runs away.

When we cross the river we find ourselves on an undulating barren, that stretches away miles and miles to the North and East; while to the West it rises to Sleive Cor, a gaunt grey hill some 2000 feet high, or rather to his foothills, about five miles away. Sleive Cor

was a volcano some time or other. He has three craters with high semi-circular cliffs behind them, about halfway up his flank. Each of these craters has its lake, and each lake its differing type of trout to tempt the angler.

TWO of these lakes have waterfalls, emptying themselves right down the sheer faces of the cliffs. Their silver threads are plainly visible from the cottage when the sun shines on them. The foothills were evidently thrown out

of the craters when the volcano was active æons ago; and from their feet the barren slopes down to the river, looking quite even and smooth, until you come to walk it. Then you find that it runs in gradual undulations, with occasional "corries" or fissures, down, which streamlets drain into the main river below.

The wide brown expanse is absolutely bare. There is not a tree to be seen anywhere. Not even a bush. No cover of any sort except in the corries, where the banks on each side of them give some shelter from the furious winds that sweep over the region and enable the long heather to grow, with a rare stunted alder or willow. A more difficult deer-stalking country, or one more calculated to try the mettle of a hunter, it is impossible to conceive.

When the deer come down from the uplands they hide in the corries by day. There they get all the feed they want, and all the shelter they need. You can't see them, unless they come up to the corrie edges, to feed or sun themselves. But they can see you miles away over the moor, or wind you with their marvellous noses, as you follow the corries up or down. Hence deer-stalking in West Mayo is the real thing, no nonsense or artificiality about it. You must work and use your wits; and you must work hard if success is to reward you.

These barrens are very wet; but the walking is sound except over "tussocks," *i. e.*, places where the turf is cracked and fissured in all directions to a depth of two or three feet, and where you must step from tussock to tussock with a scant foothold on each. There are occasional bog-holes, or "shakes" or "muskegs." But you can see them and keep out of them, more or less. The walking is interesting, too, as on all these Irish bogs. You have a wide view of the far-flung barren to the East, in every shade of brown and purple; merging into grey and blue in the far distance. To the South, Nephin More, the highest mountain in Mayo, and his brother, Nephin Beg, stand out prominently. There are lesser hills, too, with many names, between them and Sleive Cor. And there are scores of lakes, little and big; their largest Lough Conn, the greatest of the Mayo lakes, 12 or 15 miles away.

The famous mountain Croagh Patrick is visible to the South, from the upper crest of Sleive Cor, about 20 miles off. And Blacksod Bay, a vast Fjord running in from the Atlantic, would be about the same distance to the West. With this

sketch of the lie of the land, we proceed to stalking the Irish red deer.

HAVING forded the river McAndrew and I usually made for a knoll on the moor, about a mile due west of

could distinguish was the dark massive frame with the branching antlers above it. I tried to count his points, but failed. There was a shimmering halo all about him. McAndrew touched my arm and whispered: "That's the Black Stag!" It was an exciting moment.

I should explain that round the turf fire at the cottage, in the evenings, when discussing our campaign over our pipes, McAndrew had told me that there were two stags on Altnabrocky immeasurably beyond the rest in size and beauty. One he called the Red Stag and the other the Black Stag. They both carried good heads and were both extremely shy; but the Black Stag was amazingly so, and only appeared at long and rare intervals. He had been in the mountains for years, but condescend-



Our headquarters, Altnabrocky Cottage in County Mayo, Ireland

the cottage. Thence we spied out the land with our glasses, to locate a deer if possible. The first day we spied a hind, on the edge of a corrie to the North; so we came back and made a long swing to the right, until we struck the corrie about 1½ miles from where we thought she was. I should explain that I never shoot hinds or does, either at home or abroad, but it is often useful to stalk a hind, failing to spot a stag, as he may be somewhere near her.

We struck the corrie and followed up its bed until we saw the hind again with a second hind and a fawn, about 300 yards away. We crawled on, until we could get no further, for she spied us as we crossed a bend of the stream. Up went her head with its long ears! We stopped motionless and she looked at us. We remained motionless, so as not to stampede them, on the chance of a stag being near them. They were a pretty sight, on the edge of a little cliff with the stream below. Yellow bracken and green rushes, and brown moor and purple heather, made a charming setting, with the blue sky overhead, for the graceful bodies and bright red-orange coats of the deer, as the sun shone full upon them. They were very suspicious however, and after looking at us for some minutes and sniffing the air to get our wind, they trotted up the corrie and disappeared. We followed up the stream and presently a hind appeared, and then another, on the moor to our left, coming towards us, and then just behind them, a great stag came majestically into view.

He was a superb creature. He looked quite black with the sun behind him and carried a great head with conscious pride. The sun was right in my eyes. All I

ed to show himself very seldom. And as my special luck would have it, here he was, within range more or less, on our first day out! The deer were some way off; farther than I would care to shoot at in ordinary circumstances. They were moving round our left and must wind us immediately. But it was the "Black Stag." I might never see him again! I chanced the sun and the distance, tried a long shot and missed! The big stag plunged into the corrie and disappeared with his company. When I saw him again a few minutes later he was a mile away making for the hills.

NEXT day we went South towards Nephin Beg, traveling down wind so as to come back along the foothills with the wind in our faces. We came to the corrie where the badgers live and give their name to the district; when round the side of a mound opposite I saw a stag's antlers. But he had winded us and was moving away. We crossed to where I had seen him and tracked him to another ravine farther on. There he turned up its bed to the right up-wind. This was all right; so we ate our biscuits and had a smoke. We then worked up the corrie to close where it ended near the last of the Sleive Cor lakes; turned north and walked along the face of the hill to a corrie issuing from the second, or middle lake. We spied up and down, as well as we could, saw nothing and pushed on. We came to another corrie. McAndrew was above me. I was negotiating a stretch of tussocks when he shouted to me to look across the ravine. There was our stag moving away on the other side of it to the left. I shot the bolt of my

rifle, took a hurried glance along the sights, pressed the trigger. Miss-fire! Out with the cartridge. In with another. Bang! Missed! Out with the empty shell. In with another. Miss-fire again! The stag by this time was round the corner, unscathed. We picked up his trail and followed him. He was in a hurry and easily traced; his hoof-prints showing deep in the soil. As usual he ran up wind and we followed him across the face of Sleive Cor until we came to a valley, that branched West into the range. By this time he had recovered from his panic. He was walking now and we could only track him with difficulty. So we climbed to the top of a mound and searched the country with our glasses. By and by we picked him up, about two miles off, going leisurely down to the moor. We followed down after him; keeping him in view from time to time, until he reached the open country. We could see him through the glasses, as we followed him from hill to hill, moving steadily across the flat; stopping to pick the grass, or to scratch his head with his hind hoof, and then moving on again. There was no chance of a shot at him now. The light was going. So we stood and watched. On he went. Suddenly, like a great beetle, a black figure rose out of the barren. "The Black Stag again," said McAndrew. He must have been lying on the moor. Our stag moved away to the left, still going down. The other stood and watched him. Then, about half a mile to the left, another beetle rose up. A red one this time. It was another stag. Number one seemed to be a friend of his and he moved leisurely towards him, the Black Stag standing like a sentinel all the time. Then hinds and fawns began to appear in all directions on the flat. It was

nearly night now so we left them in peace and made our way home.

The Fisherman had returned with a fine basket of trout and was rather inclined to crow over us. But we forgave him and partook of his catch with relish. We could afford to bide our time.

NEXT day a furious storm came down, with sheets of rain and hail.

So we stayed indoors and burnt tobacco and turf; grateful for an ample supply of both.

The following day was not much better but we sallied out. This time we went to the Northeast, to a new spying point; and through a hail shower, I picked up two hinds and a stag, with the glass. They were in a very awkward position from our point of view, but in an ideal position from theirs. They were where two corries joined. The hinds were at the junction of one arm of the Y; and stag a little way up the other arm on lower ground. If we went in the direction of the hinds, the stag would wind us. If we tried to stalk the stag, the hinds would see us and give him the alarm. These hinds are wonderful sentinels; quite as alert as the doe caribou, or the cow moose, if not more so. As it was a case of Hobson's choice, we decided to test the vigilance of the hinds. So we swung round to the foot of the corrie and crept up it. All went well, until the inevitable happened. The hinds saw me coming up to the junction of the Y and scampered off. I made as fast as I could to the ravine where the stag lay; but as I got there, he disappeared round the corner. We followed on right up to the foot-hills again and there we saw the deer half way up the mountain. So that ended that hunt.

We then went North up wind to the next corrie and followed its course for

a couple of miles. Then, turning a corner, I saw a hind. I dropped and crawled backwards, until I got under the corrie bank. But the hind had seen me and taken fright. When I saw her next, still in the corrie, she had another hind, and a stag with her. They were moving off. I chanced a snap shot at the stag. I could just see his head through a bunch of bracken and missed him. That ended that day's hunting.

Next day the weather improved somewhat and we started off to our first spying place. We saw a stag to the right of us and two hinds a long way to the right again. The wind and the situation were more favorable to us in their case, in the event of their having a stag in their company. So we decided to try our luck with them. We made a good job of it. I got within 80 yards of them, before they discovered me. But their stag was absent, though I found where he had been polishing his horns quite recently on an apology for a bush at a spring close by.

WE then worked back to our first lookout. Our stag was still where we had seen him in the morning. But he was a long way off and he might not be there when we got there. "He may be the Red Stag after all," suggested the untiring McAndrew. And that decided me. It was blowing a regular gale and abominably cold, but we hardened our hearts and off we started. After about an hour's smart walking, we got round to the back of the knoll, where we judged he lay. The knoll was arrow-shaped behind and the problem was how best to approach him. It was blowing more furiously than ever in icy whirlwinds. I decided, fortunately as it turned out, to go over the centre of the knoll, instead of creeping round



A herd of tame Irish red deer on a gentleman's estate in Ireland; such deer are never hunted

it. So we moved forward again. I scrambled through a wide belt of most uncompromising tussocks and crept up the back of the knoll. When at last I peeped over the top, the stag was below me, less than a hundred yards to my left. Had I tried to approach him the other way he would have seen me. And, before he realized anything of my proceedings, my bullet had gone through him. He gave one or two convulsive kicks, as he lay on the ground. That was all. I doubt if the beautiful animal had any pain in his passing.

And now a curious thing happened. Just as I fired, another stag rose out of a corrie I had not noticed, about 1,000 yards away from the far end of the knoll on which I stood. He had heard the shot perhaps and wanted to know what was going on. Anyhow he came straight towards me and right down wind. I threw myself flat and presently I saw the tips of his antlers through the heather, approaching the extremity of the little hill. I waited until I saw the antlers turning to the left and then I knew that he was changing his course. So I sprang to my feet and saw him passing round the end of the knoll. It was a lovely shot. But talk about wind! It was blowing so hard that when I put my carbine to my shoulder I could hardly hold it. The foresight bobbed about like a cork in a mill-race. I fired one shot, which went over, I think. Then I scrambled to the top of the knoll and gave him another, which splashed up the water under his body, as he dived into the corrie and vanished. I followed him for about half a mile and got glimpses of him once or twice in the distance; but he was making hot-foot for the hills and night was coming on. So I returned to my dead stag and found McAndrew contemplating him with evidences of complete satisfaction.

"You've got the Red Stag all right," was his greeting, when I came up. "That's him and no mistake." So, after all, that stalk was worth the trouble.

We then took off the stag's beautiful orange coat with our pen-knives; an operation McAndrew did not believe possible. He had left his hunting knife at home. He was still more incredulous when I told him, that I meant to take off the stag's head with my pen-knife. He said that an axe was necessary. But I performed the operation very quickly. It is quite simple when you know how. McAndrew carried the head, but we left the carcass to be brought in later. We were back to our tea and our turf fire, as the pale moon rose in the stormy sky. This time we triumphed over the fisherman and he was pleased as we were.

FOR the next two days we were weather-bound. Rain came down in torrents, with occasional storms of hail that clattered on the roof like the discharge of machine-guns. The mountains were blotted out and we were cut off from the visible world by a grey pall of vapor. The river rose and lapped at our doorstep; and the angry gale battered at our windows and banged at our doors, as if all the ghosts of all the

mighty huntsmen of ancient days, deer-slayers of bygone ages, had gathered furiously around us in rage at our intrusion on their domain. There was nothing for it but to remain indoors.

On the third morning the storm abated and the wind shifted to the West. It was still raining; but after two days in the house we felt it time to tempt Fortune once more. McAndrew and I started out. We crossed the swollen river with the valiant aid of our friend the donkey and went North along the bank. Presently the rain stopped. A little later with the help of our glasses, we made out a stag and two hinds about a mile to the Northwest. But it was not the Black Stag and we had no thought for any lesser game. So we bore away still northward until we came to a corrie, running back to the hills. I saw the track of a stag by the stream and later came to where he had been rubbing his horns on a small shrub. We decided to follow up the corrie. After scrambling and paddling along for about 20 minutes, I saw a stag's antlers about 200 yards off, moving away. So we crawled on. And presently up sprang the stag. But he was not the Black Stag. He carried a small head. So I let him go.

By this time we were half-way up to the foot-hills. We continued along the corrie for another mile or so. We were now on higher ground and looking back, I could see the deer we had spotted earlier. They had now winded us and were moving about uneasily. But we had no concern for them now. The Black Stag alone occupied our minds. Away to our right was a hog-backed mound, about 1,000 yards from where we stood. I suggested going up there to spy and away we went. When we got there, a sleet shower came on. I curled up in the heather and had a smoke. McAndrew swept the country with the glasses. He reported one

away from corries or cover of any kind, due west of where we lay and about 3,000 yards off. I turned on the glass and there right enough was the Black Stag lying against a little bank of black turf.

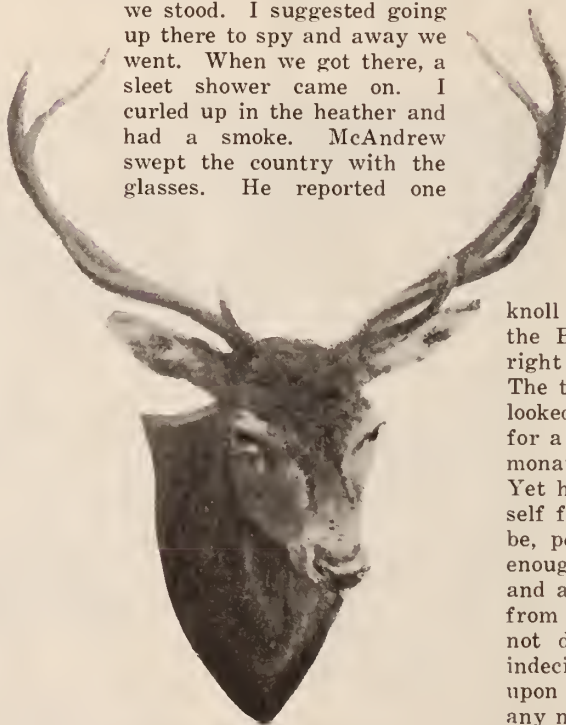
This was the third time I had seen him and there was no mistaking his peculiar color and his ebon antlers. There he was. But the question was: How on Earth to get at him?

HE had chosen his resting-place with consummate skill. There was no cover within half a mile of where he lay. The wind had changed a little since the morning and was now a point more North. This was in our favor to some extent. But, on the other hand, if we went towards the hills too far, he was certain to get our wind. And it was very difficult to distinguish the spot where he lay. However, I marked a crack on the crest of Sleive Cor, straight over the stag from where we were, that would give me a sort of a bearing later on; and we decided on a wide turning movement from the left. It looked rather a forlorn hope; but there was nothing else to try. We, therefore, came back from the mound to the corrie behind us; crossed it and bore away South to another corrie, that ended as well as we could judge about three-quarters of a mile from where the Black Stag lay.

When we reached this corrie we followed its windings until we were about south of our quarry. Then we climbed up on the moor and I guessed at our position from the rough bearing I had taken on the crest of Sleive Cor. We found later that I was not very far out in my reckoning. But the wind had changed again meantime and had fallen back to the West. This made things more difficult. Fortunately, however, the moor rose in a gentle swell just where we left the corrie; so we crept up to the sky-line and tried the glass. There was nothing to be seen! The moor seemed flat and unbroken for at least two miles in front of us. I could see the cleft on Sleive

Cor away to the left and our knoll far away to the right and I knew the Black Stag was somewhere to our right front, but we could see nothing! The two miles of country in front of us looked as if it could not afford cover for a rabbit, much less for such a lordly monarch of the moor as the Black Stag. Yet he could hardly have absented himself from the universe, so there he must be, perhaps at that very moment close enough to spy us with his keen eyes, and already planning a noiseless retreat from the presence of his enemy. It would not do to waste precious moments in indecision. We could not depend too long upon the Black Stag's desire to rest. At any moment he might rise and go away.

So we decided on a flank march to the right. Whatever happened, the stag could not wind us. Off we went obliquely for two or three hundred yards. We could see nothing on the apparently flat moor with the naked eye, so we stopped and tried the glass again. Mc-



The Red Stag

hind about miles to the east. Then the sun came out. I thought I could distinguish something like a big boulder in a small patch of black bog, in the middle of a wide stretch of moor, far

Andrew had the glass, when suddenly he said: "I can see the top of his horn, Sir." I tried to find the horn and at last I found it and the tip of the other antler as well. We marked the spot by a tuft on the bog and then we held council. The more we examined the ground the more difficult our object appeared. In fact its accomplishment seemed quite impossible. There was not even a scrap of cover anywhere. However, there was no use in sitting there, doing nothing and as the ground fell away somewhat on our right, I crept down about another 50 yards. There I found another little hump in the bog and crept up it and spied for the stag again. At last I saw him!

wonderful eyes! For me, it was one of those moments of rapture that only the hunter knows. The uncertainty of it! The excitement of it! Admiration of this thing of beauty! Desire for its

possession! Pride in a difficult achievement

all but accomplished! And yet uncertain of accomplishment! There is no analyzing our feelings in these indescribable moments. To have lived them is enough! The wonderful eyes saw nothing. Down sank the ant-



The Black Stag

There were his antlers right enough, about 500 yards away, and no cover between us! So I tried what I have found successful with caribou more than once: I started straight for the stag, glass in hand, warning McAndrew to follow and to do just as I did. I had covered about 100 yards, when the antlers moved. I threw myself down flat. McAndrew behind me did the same. Up came the antlers! We flattened ourselves on the wet bog. Up came the antlers! I could see their splendid curve, like a lyre against the sky. They turned sideways; then full again, and again sideways. The Black Stag was searching the moor with his

lers in peace. I rose to my knees. There were the antlers, but no part of his body was visible. McAndrew had crept up to me by this.

"How far do you make him?" I whispered. "150 to 200 yards, Sir," he whispered back. I set my sight at 150; got to my feet, bent myself double, and made straight for the antlers. Up sprang the Stag! Bang! went my rifle! Away he dashed! Bang! went my rifle again. The Stag pitched on his head.

"Glory be!" exclaimed McAndrew. But the Black Stag was not done yet! Up he struggled to his feet and dashed off to the left, down a slight incline. I pressed the trigger again. Miss-fire! The Stag disappeared. I threw out the bad cartridge; jammed home another; turned over the safety-bolt of my carbine and ran for all I was worth to where the Stag had vanished. It was the opening of a little corrie, and as I ran along its edge I saw the Stag below me, about 80 yards off and evidently in difficulties; but making gamely for the hills. I shot at him again and ran along the near bank, but could not see him for a moment. When he next came in view he was moving slowly. The noble beast was evidently spent. Another shot and down he came. A memorable stalk was over. Presently we started for the cottage; I with the skin, McAndrew with the great head. It took a full hour's steady tramping to reach home. We were tired, but triumphant. The Black Stag had four bullets through him.

Our Irish red deer die hard.

THE RETURN FROM THE HUNT

IT SOMETIMES HAPPENS THAT THE HUNTER EXPERIENCES THE HARDEST WORK AND HAS THE MOST EXCITING ADVENTURES WHILE COMING OUT OF THE WILDERNESS

By JOHN P. HOLMAN

MANY have been the stories told of the delights of the hunter in the seeking of game—of the joys of the chase and the struggles he undergoes in getting into the game country. This is a story of the return from a hunt, as it so happened that on this particular trip we experienced the hardest work and had the most exciting adventures while coming out of the wilderness.

We had been hunting *Ovis Dallii*—the white sheep of the North—in the mountains at the head of Killey River, Kenai Peninsula, Alaska, had secured our quota and were making an early morning start for the bottomland. Our party consisted of Malcolm S. Mackay—my companion on many adventures—two guides, Ben Sweasey and Andy Simons, two packers, Walter Lodge and Tom Finnigan, and myself.

Ben had been my particular guide on the sheep hunt and in view of the fact that this was fated to be his last hunt in the land he loved so well—he was drowned shortly after our return in fulfilling a dangerous duty for the sheriff of Seward—I like to dwell upon the traits of character that endeared him to us all. He had been twenty years in Alaska leading the rough, hard life of the wil-

derness as dog-musher, trapper and guide. Ben was calm in temperament and very resourceful; he looked on life with the true philosophical mind and took a quiet enjoyment in his surroundings. His droll chuckle over some amusing incident along the way bespoke a depth of dry and genuine humor. He was wonderfully alert in all his actions and possessed a patience that was truly marvelous. He loved the wild creatures and the environment in which they lived—his greatest joy was to wander away from camp during the long northern evenings and search the mountain slopes

for bear; the big Brownies ever held his attention and he always seemed to be able to locate one of those immense brutes feeding in some far away draw or slide. Andy, who had led Mackay many a long and interesting chase in quest of the wily sheep, was also steeped in the ways of the open; he knew all the experiences of the rugged life of the Alaskan and was full of humor and the joy of living.

Walter was quiet in temperament and strongly imbued with the spirit of indomitable courage—could carry his own weight if necessary uncomplainingly for miles—was resourceful to a degree and a wonderful hand at the cooking of food. Tom Finnigan was the giant of our party and the youngest in years, witty as his name implied and bubbling over with youth and exuberance of spirits. A truly congenial and happy time we had had together; and now we were strung out along a steep trail—picking our way through the long grass wet with the heavy dew of early fall.

MANY days of relentless toil were behind us—the fever of the hunt had spent itself and the contemplation of a leisurely journey back to civilization stimulated our senses with delight.

Each new vista, as the trail unwound, seemed to fit into the mood of the moment. The sunlight sifted through an occasional vent in the mountains and shone with dazzling brightness on the great patches of snow that lingered on the higher peaks. The air was fragrant with the scent of wet earth and fresh with the coolness of the late night. Wild cranberries dotted the bushes with crimson and the alder leaves were fringed with yellow that shone like pale gold.

Far above us the barren slopes of rock strewn wastes were lightened by occasional patches of scarlet bunch grass, all glorious in the morning sunlight. The spell of the wilderness lay like balm upon our spirits and we were happy in its quiet beauty. Finally we left the open spaces and entered the timber. After viewing for so long wide tracks of high, open country one descends into the narrowed vision of timbered places with a sense of relief.

The deep twilight of the woods stretched away on all sides and the roar of Killey river became ever louder as we dropped down the trail toward its banks. We passed many a likely place for bear—great rock slides covered deep with the moss of centuries revealing gaping caves and alder thickets, the barbed-wire entanglements of the fighting Brownie; we had passed many a tree-trunk marred with deep scratches higher than a man's head and had seen footprints in the soft places along the trail, so we were ever alert for a coveted glimpse of game.

About noon we came out on the river and followed it down stream to where it joined Benjamin Creek. Here we decided to pitch camp and rest for a few days, hunt bear and maybe find a moose whose horns were sufficiently tanned and of a size to tempt capture. As yet the moose we had seen while on our sheep hunt all had horns that were still in velvet and Andy said they would not be suitable for trophies for some time to come.

AFTER we had put up the tent and eaten lunch Walter and Tom went back up the trail to our last sheep camp to bring down some things we had left and the rest of us spent a lazy afternoon about the camp. The next day we crossed the river and Mackay and Andy started up on the mountains to hunt for bear, while Ben and I took another direction with the same object in view. We had not gone very far before we spied two black bears feeding high above timber-line, so we altered our course and began to climb rapidly in their direction.

It was a stiff climb, but in an hour or two we came out at timber-line, but saw nothing of our two bears. They had evidently gone down while we were going up, so we rested a while on a pinnacle of rock and began to study the country round about. Presently we observed a lynx creeping stealthily along within easy gun-shot, but as the fur was poor and the law was good we let him depart in peace. A little later we discovered a wolverine. He was loping along about a hundred yards away, traveling fast, with a long, rangy stride, stopping every once in a while to take in the country, swing-

ing his head in a jerky fashion, tongue hanging out, then lowering it again with a quick motion and continuing on his way. It was interesting to watch one of these strange animals without being observed by him, as they are very timid and seldom seen by man. "They are great travelers," said Ben, "always going some place in a hurry." During the rest of the day we wandered about on a tableland of wide extent, looking across to the land of our sheep hunt, and picking out with our glasses little groups of white dots which we knew were sheep, moving slowly about in the sunshine.



The long trail stretched ahead

WE ate lunch by a little spring of ice-water, which gurgled from beneath a snow field. I picked up a caribou horn, white and weather beaten, quite rare to find now on the Kenai as the caribou, which once were so prevalent throughout this peninsula, have all migrated to another land. We also noted an absence of small game—the friendly ptarmigan and the usually inexhaustible hare, were very scarce.

It was quite windy and cold on the plateau so we started downward toward camp. While resting along the way Ben caught sight of a black bear moving about at the edge of timber about a quarter of a mile below us so we started down after him in a hurry.

When we entered the thick timber we moved more cautiously until we had de-

termined the course the bear had taken and then decided that a still-hunt was the proper means to adopt in bagging our quarry. So we picked out a sheltered spot among the rocks which commanded a fairly good view of the adjacent ground and waited patiently for the bear to make his appearance. We had not very long to wait before Ben pressed my arm and at the same moment I saw the alders part about a hundred yards away and a black bear came lumbering into view. I quietly raised my rifle and at its sharp report there was a great commotion in the underbrush with much squealing.

We ran forward to the spot where the bear had disappeared and found him mauling up the ground in an angry rage. Another shot quieted him in short order and we soon had him ready for skinning.

He was fairly good sized and had a wonderfully glossy coat for that time of year. We managed to remove the pelt and, taking as much of the meat as we could carry, tramped the few remaining miles to camp in rare good humor. We found Andy and Mackay preparing supper, so we slung the bear hide over a limb and rescued our share of the meal.

MACKAY and Andy had seen some moose on their trip but both agreed that it would be at least two weeks before their horns were fully tanned, and as the great brown bear were protected by law from shooting until October first and the black variety didn't offer enough sport, we decided to break camp in a day or so and make for Seward. The next day we spent about camp and on the adjacent mountains, observing many moose and an occasional brown bear moving about just above the timber-line—thanks to the alert eyes of Ben who was ever on the lookout for a sight of one of these great brutes. Early the following morning we shouldered our packs and took the trail for the outside. Toward noon we reached the summit, and by a little emerald lake of glacier water we found the cache and stopped for lunch. We ate all the remaining eggs in our supplies—about eight to the man as it worked out—and drank a pot of coffee.

As we lay resting afterward we observed with much interest two sheep, a ewe and a lamb, feeding quite low down by a long snow slide above us, and swinging our glasses out over the wide valley we had just left we were able to pick out a number of moose scattered at different points over the bottomland below. They were feeding quietly; only an occasional swing of the head as they warded off the flies which no doubt swarmed about them enabled us to detect their position. Usually they were standing by one of the little lakes which abound throughout that region and make the Kenai such a wonderful habitat for game. One old bull was lying down in the long wet grass of a swamp not very far below us, dozing away the long noontide hours in placid contentment. We were loath to leave such an enchanting scene of wilderness life; but a long trail stretched ahead and the mountains were casting warning shadows, so we adjusted our packs once more and turned our backs on the great valley of lonely beauty. We crossed a

tableland of barren tundra and late in the afternoon began to descend toward Skilak Lake—slipping and sliding down the last few miles to camp. Here our back-packing ended and a long journey by water stretched ahead.

BEN began immediately to tinker with his outboard motor and get the boat in order for the long trip across thirteen miles of lake, twenty miles of turbulent river, which, unfortunately, would be flowing in the wrong direction, and another twenty-three mile lake trip to the new Government railroad.

Mackay and I examined our sheep heads which were hanging in noble array beneath the cache and congratulated ourselves on the success of the trip. Next morning before the mists of night had cleared from the face of the water we put out on our voyage and skirted the shore to the chugging monotone of the motor, which was echoed back to us from the fog-wrapped hills. At one o'clock we had reached the river and wound our way up one of the branches which formed its mouth as far as the motor could push against the current and then landed and cooked our lunch. From now on we would be obliged to line the boat up stream against a strong and treacherous current—the water was very high and ran like a mill-race along the shore.

Mackay and I kept in touch with the boat from the bank and helped the men over the rough places, but the glorious struggle was theirs to the utmost and they seemed to revel in the fierce breasting of the stream—wading sometimes waist deep and leaning over until the water almost ran down their throats, with the smile of triumph on their faces as the boat gained inch by inch against the power of the current.

When the sun had set we tied the boat to the bank, wrung out our clothes, poured the water from our shoe-pacs, built a fire and dried out as we munched our supper. Then, as the night was clear, we spread our sleeping bags under the friendly stars and while the moonlight sifted through the spruce trees we rested tired limbs and aching muscles. Nature worked her great restorer and the waters of the river rushed by in ceaseless roaring throughout the night.

TWO more days brought us to Cooper Creek Landing near the mouth of Kenai Lake. The last was a day of hard exhausting labor—lining the boat up through some narrow canyons whose sheer rock sides afforded scant foothold, and the high swift water pulled with great power against the heavy boat—but our splendid men overcame all the obstructions that beset them and brought us through with never a sign of weakening, though the odds seemed sometimes unsurmountable. Nighttime brought reward in rest and food and the zest with which they tackled the bean pot proved that they had earned their dinner.

Jimmie Kyle came down to visit us and invited us to spend the night at his mining camp, a short walk up Cooper Creek, but we rigged up the tent and slept by the murmuring water. The next morning proved to be one of rare beauty



For luncheon we ate all the remaining eggs, about eight to the man

with not a cloud in sight, and we made an early start for Kenai Lake, arriving at Victor Gombard's cabin at its mouth about ten o'clock. Here we donned dry clothes and when Ben had adjusted the motor to his satisfaction we put-putted away toward open water.

We figured that we would make the other end of the lake where the railroad ran in about four or five hours. Well satisfied that all the hard work of the trip was far behind us we lay back on our duffle bags in placid comfort, content to watch the ripple of our wake and dream of all the delights of civilization that were waiting just ahead.

ALL went well for a mile or two and then we noticed that the sky was beginning to cloud up, a little breeze began to blow and the smooth surface of the lake was beginning to ripple, just enough to make us feel a little uneasy as to the future. It was not long before the sky became completely overcast and the breeze stiffened quite perceptibly. We chugged along, shipping seas, getting drenched by spray, but rather enjoying the sudden change in the weather until a tell-tale miss in the even song of the

motor gave a new trend of thought for our imagination to feed upon. As if in answer to our questioning thoughts it suddenly did as we expected—stopped as dead as a piece of iron. We were compelled to resort to man-power as a means of locomotion. We were heavily laden—deep in the water, and the storm had settled down to a steady blow with accompanying high seas and rolling combers, white with anger and slapping our little craft with furious dashings. Ben was spinning the flywheel of the motor with patient persistence while we pulled, two men to the oar, in frantic endeavor to keep the boat moving against the forces of nature. The motor seemed to have realized at last that Ben would have kept on spinning it forever and so responded with a good grace to the inevitable just in time to overcome the pressure of the hosts arrayed against us, and we steered into the lee of an island and finally landed behind a cliff, out of the wind.

We climbed the cliff and looked up the lake along the course we had intended to take, but such a scene of wild commotion met our eyes—a rolling, toss-

(CONTINUED ON PAGE 88)



We were obliged to line the boat unstream against the dangerous current

A RECORD SHOT

THE LAST LONE GOOSE FLEW BACK TO THE DECOYS,
AND SO CAME TO BAG THE ENTIRE FLOCK OF NINE

By WIDGEON

I WAS alone in the blind, a brisk breeze was blowing, a dry northeaster, and the limpid waters of the bay were ruffled. In the channels occasionally a white cap could be seen, and from the distant beach came to my ears the muffled roar of the surf. From the eastern side of the island behind me came the faint tap—tap of a hammer, where "Hank" and his son "Scouse" were building a woven wire enclosure near the shack, for the live decoys. Before me under the declining sun lay the waters of the beautiful Barnegat and on the western horizon, the dark green line of the pines of Ocean County.

The three of us had enjoyed a good morning's shooting, but since ten o'clock the birds had not been flying, and I had been left with the decoys. These decoys, by the way, are worthy of more than passing mention. We had with us on this trip, the usual assortment of painted wooden decoys, and seven geese and ten ducks in live decoys. Four of these geese are trained birds from North Carolina, and three of them wild wing-tipped birds, caught in the bay. One of these, a magnificent gander, is the best decoy I ever shot over, seldom tugging or struggling at his chain, and *never* calling except to his kind. The ducks are crosses, or hybrids, of wild mallards and black ducks, headed by "Black Jake," a lordly drake with dusky body and dark green head, and "Mammy," a pure wild mallard duck. Five of these decoys are kept tied and five are loose. It is a pleasure to watch their antics, such diving and splashing and quacking as they make, often the five will swim away to a distance of a hundred yards or more and then at a rasping call from "Jake," who is always kept tied, they will fly back and come tumbling pell mell into the decoys, and woe to the wild bird who sees them at this time, for he will decoy as tame as a chicken.

TO those who are in the habit of shooting from the Barnegat sneak-box, our blind would be a luxury. A box sunk in the reeds on the point, large enough to accommodate three shooters, with a comfortable seat, and in cold weather an oil stove. This is shooting "de luxe" compared with the old style.

The whispering of the wind through the reeds, the gentle splashing of the waves, combined with the genial rays of the sun, had lulled me into a reverie and my thoughts go back to the days of long ago, for over fifty years I have spent my

vacations and leisure hours beside the waters of this bay I love so well. First as a boy of thirteen years, shooting snipe at John Dorset's, and for many years after on the broad bars at Uncle Jakey Herbert's; in succeeding years, duck shooting at Chadwick's and Ortle's, with the loved companions of my early youth and manhood. Many are the goodly bags of game I have taken up the beach in those years, and many a royal day's sport have I enjoyed. Those dear comrades, so full of life and enthusiasm, where are they now? All are gone into the Great Beyond, and I alone am left behind.

S UDDENLY I am aroused from my day dreams by the clarion call of the "wild gander;" with extended neck and looking toward the beach, he shows every sign of excitement and now all the geese decoys are calling loudly. Then faintly behind me from the east, comes the answering "Honk-honk." Twisting around in the blind, I see high in the heavens a flock of geese, nine of them but so far away they look no larger than black birds. They hear my decoys, and setting their wings in the curve so dear to the sportsman's eyes, they begin volplaning down from their dizzy height; but the wind drifts them to the south and by the time they are low enough, they are fully a half-mile down the bay and my decoys have stopped calling. They then begin flying up the bay looking for the geese they had heard and I try in every



The decoys in action off Stooling Point

way to start my geese up again, but they are dumb, and finally, greatly to my disappointment, the flock alights squarely in front of the blind and about a quarter of a mile away, and then resting and feeding, they slowly drift with the wind and tide down the bay.

As I sat watching them, a low voice behind me said, "Mr. A. where is the

flock of geese? We saw them from the shack." It is Hank and Scouse, who have returned to join me in the blind.

"Why, there they are down near the bridge, don't you see them? See their white breasts flashing in the sun. Hank," I added, "I don't like the way your decoys are put out. I always like to have one on the bank out of sight of the others to keep them talking. I believe even now, if you should bring one back in the reed, it would start them honking and the flock would yet come to us."

"All right," says Hank, "We'll try it," and wading out in the water, he picked up the nearest decoy, a little goose, putting her under his arm he carried her in and placed her behind the blind. Almost at once her mate began to call, and soon they were all honking loudly.

Hank came back to the blind and before he was fairly seated, Scouse cried "Here they come;" and sure enough, the flock was on the wing and coming our way. Low we crouched, and on came the geese; and heading up in the wind, they lit about one hundred and fifty yards beyond the decoys and began at once to swim in. Nearer and nearer they came and now the wild gander put in his fine work. I wish I could produce in cold type, his coaxing, caressing call, "Come on in; come on in, the water's fine. Come on," but when they came to about ten yards of the outside decoys, they stopped and then I took time to glance at my shooting companions.

Now Hank, while a veteran at field and trap shooting, had killed his first and only goose over decoys in January, 1916, and Scouse had never killed one, I noticed Hank's square jaw was set and he grasped his trusty gun, with a firm hand, and I felt sure he would give a good account of himself; and then I saw the boy. His knees were shaking, his lips quivering, and he showed every symptom of "buck fever." Reaching out my hand, I grasped his leg and said slowly, "Keep cool, don't get excited," and he froze at once and became as steady as a veteran. Hank had

been chosen captain of the squad and I waited for the word to shoot.

"Don't you think we had better take them, Hank?"—"Wait a minute or two and let them get closer." "Gee!" whispered Scouse, "Ain't that old gander a buster, see him stretch up his neck. I'll bet it's longer than my arm."—"Better take them Hank before something

scares them."—"All right then, whenever you are ready."

THE geese had come no closer, but had changed their position somewhat, I could not shoot from where I sat. Slowly I drew my gun back and carefully parting the grass over of the blind in another place, I made ready for the shot. The old gander and goose had moved a little to one side and lapping, made a good shot for Hank, while the seven goslings had lined up beautifully for Scouse and me.

"Are you ready?" "Yes." "One, two, three," BANG! Immediately we were on our feet, and for a second I thought they were all done for; then very heavily one rose from the center, to be immediately cut down by Scouse's second barrel. Then one badly hurt rose to the left to be dropped by Hank, then one rose slowly

one of the "dead" geese rose and with hanging legs started to fly away.

"Stop him; Stop him! No use, never mind he can't go far." Weaker and weaker it flew and after going a few hundred yards, dropped again and at once the remaining goose lit beside it. Now Scouse gets out the boat and after a short row, gathers the cripple, the other merely swimming away.

The dead geese having been gathered, there is great rejoicing at the blind. After a short war dance, with elaborate ceremony, a small libation is poured to the goose shooter's gods, and after looking over and hefting the dead birds, which were very large and fat, quiet once more reigns. We are now watching the remaining goose, which honking mournfully, is slowly drifting down the bay with the tide.

"Hank," I said, "If we keep low and quiet, I believe that goose will come back to us before sun down." Slowly the sun sank in the west. Our decoys kept calling from time to time, and then Scouse who had been watching cried, "Here she comes," and the lone goose in the failing sunlight came into her doom, and at the crack of Hank's gun, joined her mates who had gone before, and so came to bag the entire flock of nine.

IT was a beautiful sunset, the western sky was aglow with all the glorious changing colors of the rainbow. No artist's brush could do it justice. To me, the sunsets viewed from the shooting points in the shooting season, are a joy, a wonder, and a revelation.

As the sun's red disc disappeared behind the distant pines, we began taking up the decoys. This is an interesting sight, especially to a novice. "Black Jake" is taken up and placed in a crate on the meadow bank, and at once all the other ducks swim to the shore, and waddling to the crate, with prodigious quackings, crowd around and insist on being placed inside with "Jake."

At last all is done. Hank with the decoys and seven of the geese in the boat rows around the shore, while Scouse and I take the path across the meadow to the shack; Scouse with his two geese slung over his shoulder, as happy as a lord. He said he would not miss the pleasure of carrying them in for a hundred dollars. As we walked along, Scouse said, "This has sure been some day for me. I didn't want to say anything in front of Dad, but Mr. A. if you hadn't put your hand on my leg, and told me not to get excited, I surely would have blown up, but that just steadied me."

When we reached the shack the geese were tied in pairs, again admired and hung on the side of the house, with the ducks we had shot in the morning.

AND now with rubber boots replaced by comfortable slippers, Hank and I reclined before the glowing fire, and fought our battles over again, while Scouse, who is an excellent cook, prepared the supper, and such a meal!

Surely that bountiful supper made a proper ending to a red letter day. So after a brief period I went to bed, leaving



"Scouse," now a veteran in the World War, proudly wearing the blue and gold chevrons, and whose deadly precision with the machine gun helped hurl back the Hun at St. Mihiel and Belleau Wood

Hank and his son to enjoy the fragrant weed, and the last thing I remembered, before sinking into the arms of Morpheus, was Scouse saying, "Just think of it Dad, a whole flock of nine geese killed without a miss. We couldn't do it again in a hundred years, that surely was a record shot."



The pleasure of carrying them in

to me to drop again at the report of my gun, and now seven geese were on the water all apparently dead and two in the air, one of them hard hit.

Hank and Scouse sprang from the blind to gather the birds and I watched the remnant of the flock. They flew out over the channel and then the wounded bird turned and started back, followed by the other.

"Down Hank! Down Scouse! They are coming back." Hank was by this time in the water among the duck decoys and Scouse on the bank, they both crouched down, meantime I had hurriedly slipped in a couple of shells and was ready. Back they came, the "cripple" decoyed beautifully, and with curved wings came in right over the decoys. The little gun came to my shoulder and at its sharp crack the long black neck dropped backward, the broad wings folded and with a resounding splash the eighth goose was down. We fired our other barrels at the remaining goose, but it was out of range and now while every gun was empty, with feeble honkings,



Hank at the door of the shack

HUNTING MERRIAM WILD TURKEY

AIDED BY TURKEYFOOT THE APACHE, THE SCIENTIST SECURES SEVERAL FINE SPECIMENS OF THIS RARE BIRD FOR A MUSEUM GROUP

By H. H. SHELDON

IN the United States there are four varieties of wild turkeys, all sub-species of the Mexican wild turkey, from which our domestic fowls descended. The common wild turkey is found from the New England states west to Kansas and Oklahoma. The Florida turkey is an inhabitant of the regions of the Gulf Coast and Florida. These two forms are not noticeably different in coloration, and to the casual observer would pass as one and the same bird. The western forms known as the Rio Grande, ranging in Texas and northern Mexico,

and the Merriam wild turkey, whose range of distribution is limited to New Mexico, Arizona and possibly a few points along the southern border of Colorado, are also much alike, but differ from the eastern forms in size and color, being slightly larger and showing a conspicuous rump patch of buffy white tipped feathers, with the tail band the same, while in the eastern birds the white is replaced by chestnut. These are the distinguishing characters and the most noticeable occurring in the four forms.

The following account of hunting the Merriam wild turkey is taken from my notes of a biological survey in the state of Colorado, in the interest of the Colorado Museum of Natural History, at Denver, and while the number of turkeys secured, was in excess of a bag for one hunter (from the sportsman's point of view) I might explain that for scientific reasons it was very necessary to represent the species by several specimens of both sexes and different ages.

During the summer I had made frequent inquiries concerning the possible existence of wild turkeys in the state. They had for a number of years been regarded as extinct within the border of Colorado, where at one time and within a score of years past they were comparatively abundant in the country they frequented, which was chiefly west of the Continental Divide. The earliest records, however, tell of turkeys inhabiting the greater portion of the state west of the plains, in all of the yellow pine and pinon forest areas, but they were hunted and trapped to such extremes in the early days that now they are found only in the most isolated wildernesses of



Group of Merriam wild turkey in the Colorado Museum of Natural History

the semi-arid regions of the southwest.

DURING the latter part of November news reached me that turkeys were to be found close to the line of New Mexico at a point some sixty miles away, and I at once made preparations to make a trip to the said turkey country.

I was fortunate in securing the services of Mr. Jess Ewell, an apt linguist of the Apache tongue, and to whom I am indebted for making the hunt successful, in consequence of his acquaintance with the natives and knowledge of the country traversed. So one frosty morning, in November, Jess and his team of hardy bays trotted into my camp and soon after we were wending our way through the big spruce timber and aspens, down the Navajo River and to the lower and semi-arid country in New Mexico.

Upon reaching an Indian village the whereabouts of one Lucas Turkeyfoot (an Apache, named for his prowess as a turkey hunter and known by Jess as the one Indian who would locate the turkeys for us) was investigated, and we fortunately found him though some hours later. A rapid conversation took place between the Apache and his friend Jess which consisted of a mixture of Mexican and Apache, and with occasional intermittent pauses in which the writer relayed through Jess an offer for the Indian's services, an agreement was finally made and Turkeyfoot promised to meet us on the following morning at a given point some twenty miles away; with assurance that he would overtake us at the end of the trail, before we had breakfast next day, and lead us into the turkey country.

We then proceeded through a delightful country of yellow pine forest and sage brush flats, typical of a large area of New Mexican scenery. At evening our trail encircled a lake from which a flock of green-winged teal rose and flew directly over us, the 12-gauge hurriedly pulled out of its place

in the pack, was slapped together and we managed to get two of them which later made a very appropriate feast—for this day was the last Thursday in November and very keenly we enjoyed our Thanksgiving dinner of roast duck and sweet potatoes

and hot biscuits (a la Dutch oven), together with a goodly supply of appetizing accessories including that always delicious "camp coffee." How good it all tasted in that cold-dry, sharp November atmosphere of the southwest, and I, too, enjoy the mental picture of the camp situated under those big pines with a pitchy log fire crackling out its friendly warmth. My big mountaineer companion caused me to chuckle at his droll sayings long after we had crawled under the heavy canvas "tarp" to sleep—that first night on the ground under the stars.

It was seven next morning when the odors of bacon brought the long-haired Apache galloping into camp and he was not at all slow to desert his pony and partake of the white man's grub. Turkeyfoot was in every sense of the term "a good scout," and after a hearty breakfast he fell right into the work attached to breaking camp and it was only a matter of minutes that we were hooked up and making our way to the not far distant turkey country. Riding ahead on his little broomtail bronco Turkeyfoot led us over some rough and uneven country that he knew by heart. Porcupine spring, the only water in the region, was the point of termination of our journey and we were just a short distance from that anticipated camp site when I noticed the Indian a few rods ahead was scrutinizing the ground in an interested manner—and reached him to find that turkeys had recently been in the vicinity. To see their tracks in the soft earth under the pinons helped considerably to stir up my anxiety for the coming hunt and we hurried on to make camp preparatory to a little scouting

around before dark in hopes of locating some fresh signs.

It was 3 o'clock when we made camp and an hour later, after devouring a miscellaneous assortment of food, I gave the sign to "Turkeyfoot" and he led the way to the region of the tracks we had seen. After a considerable time we came upon some fairly fresh tracks and a little later the Indian pointed to some fresh scratchings under the pinons where a number of the big wary birds had been feeding on the pinon seeds, and the earth was still damp and showed contrasty dark patches amongst the brown litter of the pinons. In fact, the spot had been so recently frequented by turkeys that it seemed as though they must be near enough for a shot, but as quietly as we approached that particular spot, those turkeys had in some way learned of our coming and were doubtless far away from the place when we arrived. But I was not disappointed for I hardly expected to see turkeys that night. Fresh proof of their being in the vicinity of camp was as much as I hoped to find and I returned at sundown well satisfied with the results of the investigation.

THE night was cold and clear and by the warmth of the fire we fell into a good sleep which lasted until 5:30 next morning, at which time the cold had commenced to penetrate. Driven to fast work by Jack Frost, we soon had coffee bubbling at the outer embers of a hot fire, and after consuming a hearty breakfast, I left for the country of the turkey tracks. Visions of a flock of wild turkeys running through the ravines of sage brush and yucca, or, a calling hen perched on some pine log in the scattering oak brush, or, perhaps, a bunch of them scratching for pinon seeds somewhere in that great forest of pinons were ever before me as I worked from canon to canon—listening, watching and searching for fresh signs that might turn my mental pictures into realities. After several hours of this kind of hunting (and at a moment when I was commencing to wonder to what country those turkeys had migrated), from some uncertain direction I heard the call of a turkey, so far away in fact that I had to listen intently for some time until I was able to locate the actual direction. It was certainly a hen turkey calling—"Ouoit-oit-oit-oit" on rising scale—just that old familiar barn yard call, but yet how different it sounded, and what a thrill it gave me, in that wilderness so far from anything domestic.

Carefully studying the country I began a well guarded approach offered by a low ridge running parallel to the ravine in which I figured the calling hen was located. After some little manouvering I got to where the calls were distinctly clear, and near enough to commence some careful sneaking; so I made my way to the top of a low lying ridge studded with lofty yellow pines and intermingled with patches of scrub oaks, and which afforded me a well concealed outlook. Again went the call, this time somewhere below me on the opposite side of the ridge. After a little more sneaking I made out several dark forms through my screen of

oak brush. The flock was about 200 yards away, and I made my way on hands and knees slowly and very quietly to the last patch of brush that remained to keep me from being seen. This accomplished, I found myself still considerably out of range, about 125 yards from the flock, which was feeding and scratching about under some pinons at the base of a small ravine. They looked so contented in their attitudes and unconscious of the near enemy that I wondered if they were as wild as their name implied, until presently the cause of the appearance of safety was explained by the long neck of an old hen protruding above the top branches of a pinon; this wary bird was acting as sentinel for the flock.

A good-sized pine tree about 40 yards down the slope was the only cover offered to make a closer approach and though I knew I would still be out of range (even if I could reach the tree without being seen by the old bird on guard) an 80-yard chance with heavy loads was worth trying for rather than making a wide detour with loss of much time and very likely the turkeys; so getting the old sentinel bird in line with the big tree I crawled from the thick cover into the open, and if those turkeys had been elephants I don't believe my desire to reach that tree in the hope of getting a shot would have been any keener than it was during that 40-yard crawl. However, the tree was reached in safety and the old bird from her elevated position assured me with a few short calls that I got away with the stalk okeh. Then peering out from the tree just a few inches from the ground I got my first good view of the big birds as they scratched among the deep litter under the pinons. At times one would dart out from the flock to catch some flying insect and their movements as a whole were noticeably rapid and their bodies lithe and slender, in comparison to the heavier and fuller-bodied farm fowls.

I watched them fully ten minutes, studying their movements and enjoying the sight to the utmost, but wishing that I was 30 yards nearer for I felt satisfied that I would fail utterly at that long range of at least 80 yards. Finally they commenced to work slowly from me on down the ravine and with a preconceived plan I rushed at full speed toward them and got 25 yards nearer before some of them saw me and I stopped for a shot at the nearest turkey. At this moment I saw a flash of turkey here and there and then four of them which had evidently not detected me, bunched together under a pinon in a hesitant manner, seemingly uncertain which way to make their escape, and taking advantage of that brief moment I let drive with the left barrel well up on their necks. Two of them went down and I could see them flopping over the ground from a sidelong glance as I ran out to the right to get a shot at the remainder of the flock. They went running up to the top of the opposite ridge, and before they reached it to take wing, the right barrel brought down another and the excitement of my first meeting with wild turkeys had ended. They proved to be an old hen and two young birds of the year, and being

the first wild turkeys I had ever carried to camp, I did not mind the three-mile tramp with such a load but rather enjoyed the weight of their bodies and sight of their beautiful plumage hanging from either side of my shoulder.

WE smoked by the fire late that night, and hit on a plan suggested by the Apache that we work a new country next day, providing it did not snow in the meantime, the latter being preferable. The sky looked threatening and we had pitched the little tent in anticipation of the first snow of the season. A long sound sleep made the awakening next morning somewhat of a surprise when we found our feet unusually warm covered with a blanket of snow which had drifted into our open cylinder tent. A new aspect had taken effect of our surroundings. In a few hours the rich colors of autumn had changed to a winter scene of black and white. Four inches of snow had fallen in the night, and we wasted no time in getting a fire and breakfast; and when the inner man was warmed up we set out again to hunt the elusive turkey, this time however, by the fascinating method of tracking. But contrary to the expectant long hike through snow to find the first tracks, after not more than one-fourth mile from camp a series of calls rattled out that brought us up short, and we commenced to sneak through the pinons in the direction of the sound, and presently came on the tracks of five and followed them silently in the soft snow.

Turkeyfoot in the lead suddenly stopped and motioned me that they were not far ahead and before we realized it, were in sight of them. The Indian's rifle cracked and then I banged into one as it hopped into the air to sail down a deep canon. We both scored, though I had only winged my bird and was obliged to chase it some distance down the canon before killing it with a second shot. The two turkeys, both hens, were hung up to a pine limb and we separated in hopes of finding the other three birds, which had gone down the canon on wing. Sometime after I came upon the tracks of a single turkey and followed it over a puzzling course for an hour or more when it finally came to an end, and a few wing tip marks in the snow and several tall pines about a hundred yards away was a very suggestive clue as to where this turkey had made to, and while I was figuring out a means of approach, out he flew from the top branches and sailed with hardly a wing beat far out of sight.

THIS concluded my morning hunt and I returned to find Turkeyfoot waiting for me with the good news that he had found where a flock of turkeys had followed along a ridge intent on making to the high, rough country to the north, and that the tracks gave evidence of there being at least 30 birds in the bunch. We ate a hearty lunch and made for the upper country, Turkeyfoot leaving me to make a detour of the ridge to see if they had crossed a certain big canon into a country where we hoped they would not go. I was out about an hour when I struck the tracks of the big

(CONTINUED ON PAGE 89)

PART 4.

The
Gulf
RangersFRONTIERS
OF
ADVENTUREBy W. LIVINGSTON LARNED
Drawings by the Author

IT should be understood that Mr. King and his party were now entering upon a mile-stone of their journey that promised genuine thrills. Parts of Florida have never invited either tourist or sportsman. There are definite reasons for this: inaccessibility, arduous navigation, uncharted rivers, of which there seem to be an amazing number, and the certain knowledge that these water-lanes give wild refuge to men who have sinned against society. The brigand at heart or the murderer by actual practice have kinship with Lossman's and Chokoloskee. Only the Seminole feels absolutely at home there—and he never talks. White men swing wide of a course that is apt to take them where there is no returning. The tortuous rivers and creeks, with their shallows and sand bars and confusing vegetation, form a perpetual, yet ever-changing mosaic puzzle. Strangers are not wanted here. A new face is a marked face. And always, day or night, the shining barrel of a rifle is slid through damp wet leaves, at the approach of boats.

It is different on Shark River, farther down. Tarpon Lake is now open game country. Sportsmen take the trip around to it without thinking very much of it, one way or another.

They all agree on one significant point, however. Up these silent, sinister rivers and upon the shadowy, haunted lakes, there is a mystery beyond description. We have mentioned before that the members of the King Party found themselves speaking in whispers. This is true. You sense an indefinable something that sets your pulse jumping. Is it apprehension, fear, awe? Is it the ever-present and indescribable murmuring of an unseen presence back in the mangroves? Is it the sight of ugly, repulsive, river things—snakes and alligators and slimy, gliding, wriggling bodies that never "stay put"?

There on Dr. Tiger's Lake, even in early afternoon, John and his Father were oppressed. The memory of a thousand Spanish and Indian tragedies stalked in and out among the moss-grown trees of the bank. There was no human habitation, with the single exception of Dr. Tiger's miserable shack on the shell mound. A sheet of tranquil water rippled and danced as tarpon nosed out to the surface or hideous gar chased shining mullet.

Two raccoons came pattering down a fallen log and sat there, unembarrassed, unafraid. They were as immaculate and as well-groomed as Fifth Avenue fashion plates. In a single half hour's trip around the lake, John saw no less than forty of them. Once



TARPON

In search of Game up West Coast Waterways, Three Explorers of a Little-known Land, Encounter Strange Fish, Animals and Men. The Earlier Stages of a Remarkable Trip that Ended in Egret Rookery Perils.



LARNED

LEAVES from a TROPIC SKETCH-BOOK



MARCO



A "CAT" LOOKS TAME, BUT NOTHIN' DOIN'...

ghostly decayed trees."

Mr. King glanced at his watch. It was half past two—and a glorious, drowsy, indolent afternoon.

"We will equip the small boat for a trip to the interior up one of the small creeks," he answered, "there should be plenty of deer and Hendry will never be able to sleep on borrowed venison. Moreover, I must make certain observations for my diary and secure samples of soil

and cypress scrub were represented in abundance, together with cabbage palms of gigantic size, black and red mangrove, an occasional live oak and tiny communities of wild lime and custard apple. Mr. King jotted down, as well, varieties of pigeon wood, button wood, sweet bay, dogwood and even gum eliami.

Reaching upward, through these hammock and shore monarchs, was a bewildering number of ferns and vines—the virginia creeper, jungle vine, sword fern, palmetto, moon vine, resurrection plant, to say nothing of yel-

a good sized deer ran out upon an open area, reared its beautiful head, and was off like the wind. The ducks grew tiresome, there were so many of them and their colors so variegated. Ibis and coot and the ever-present heron were singularly proof against fright. This was THEIR land. Born of it, and seldom disturbed, they viewed these three voyagers with a nonchalant indifference.

John Billy, the Seminole who had piloted them this far, was gone. They were alone—impressively alone.

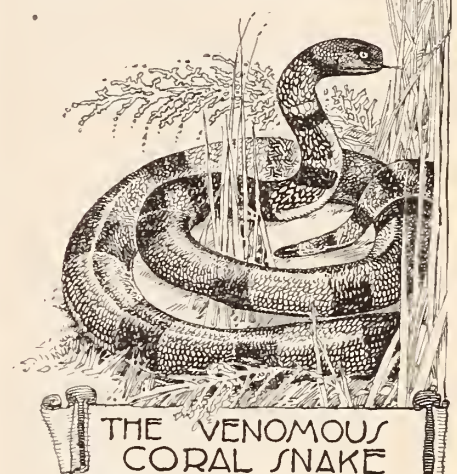
"If it's just the same to you, Father," observed John, Jr., "I would rather pitch camp somewhere else. Dr. Tiger's death house gives me the creeps. It is full of poison bottles, bats, frogs, lizards and ugly thoughts. If we remained here over night, I rather think the old doctor himself would return from his Happy-Hunting Grounds and play spook under the

and limestone. John Billy told Hendry that there were pine lands to the North. The discovery of such lands would be important. It is not popularly supposed that the pine will flourish out there. Take along your rifle and plenty of ammunition. Hendry has the boat ready now, if I am not much mistaken."

This was true and they entered a writhing tropic creek that led from the eastern end of Tiger Lake. It was something like fifty feet wide here and from six to ten feet in depth, and ran in a northeasterly direction for a quarter of a mile, finally diverging to the North, shallowing as it went.

It was perhaps a mile from the Lake that John begged his Father to bide a while, while the lines were made ready. Here the beautiful creek was from twelve to eighteen feet in depth and twenty-five feet wide. At one point, as they looked down into the clear water, they could see a broad limestone ridge, silhouetted against the murky bottom. Here there was a perceptible current of no less than four miles per hour.

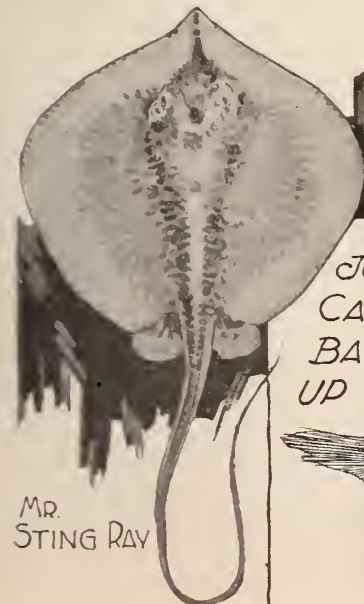
The shores were all that they had grown to expect—and more. Cypress



THE VENOMOUS CORAL SNAKE

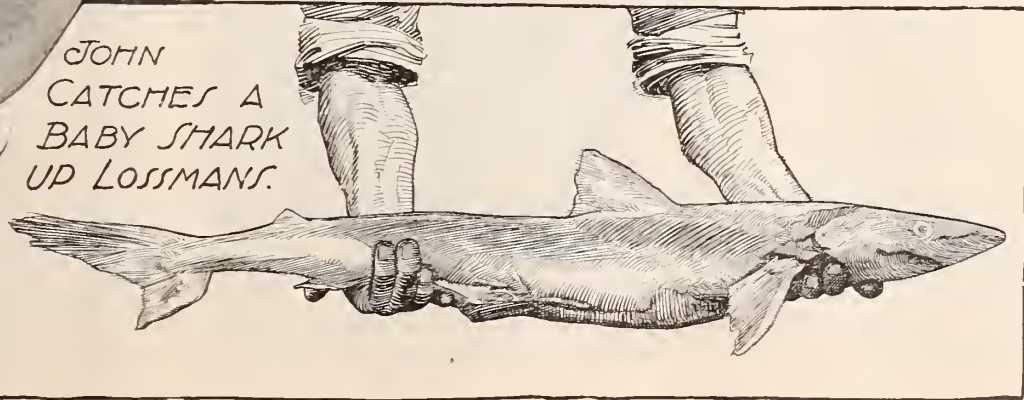
low, scarlet and royal blue flowers—orchids that flamed against the dark green—*Tillandsia Fasciculata*, wild vanilla and limp colorful clusters of pale purple air plants that baffled classification at that distance.

Not once did they see a "burn" or the



MR. STING RAY

JOHN CATCHES A BABY SHARK UP LOSSMANS.





There was constant fascination to the little, tortuous, narrow streams, coming from nowhere and finally lost in the wonders of Dr. Tiger's Lake



Here the bass were hungry



They found the crumbling remnants of an old Indian settlement on one of the hammocks. Still fastened to a tree branch was the crude grinder for meal-time

clearing of an old camp sight. It was absolutely primitive, untrodden—remote from the Universe of Man.

The boat was anchored and Hendry, as eager as a boy, began to arrange his lines. He had made sure there were black bass and sporty two-pounders, and it was not too much to hope that small pan fish could be had in abundance for the sheer sport of boy and line.

Hendry brought in five sizable bass the first half hour, with poor John's record absolutely cold. It was then that both, who had their backs turned to Mr. King, were suddenly startled by the loud report of a rifle near at hand. Mr. King had fired. As he stood up astern, he shouted:—"It was a cat. A splendid buff and yellow boy, with eyes like agates. He came out—yonder—beside that bunch of vines. I'm not sure but I think I got him."

The anchor was raised and they poled slowly up the bank where it was shallow. When a foot or two from the mass of Moon vines and palmetto, the scuffling and grinding told them that the cat at least had not made a clean escape.

"Push her to the bank—I'll jump ashore and see what's happened," whispered Mr. King. Hendry was grinning and John's eyes were particularly bright. They could not see over into the marshy ground because of clusters of ferns and saw grass.

It was then that the riddle found a solving. This same clump of ferns parted, and a dark body lumbered out, its legs working with a sort of mechanic, rhythmic precision.

"Gator!" grunted Hendry.

"What a Granddaddy!" John, Jr., gasped.

It was a very large specimen; with mud-caked skin, scarred and peeling. The singular part was that this big alligator dragged the wild cat with him, blood streaming upon the ferns and grasses. He had doubtless been asleep in a bog under the cypress trees and dinner had tumbled over almost into his hungry jaws. Not even the report of a rifle on the silent air could divert him from a quick get-away, plus grub.

Both Hendry and Mr. King blazed at the scuffling 'gator. The latter, disgusted at three misses, threw down his rifle and used a revolver. They were near enough for it. But something went wrong. The 'gator sank to the muddy bottom, munch-

ing his precious morsel. A scarlet, eddying whirlpool was all that remained, and rippling water against the side of the small boat.

"The old reprobate!" grouched Mr. King, "he absconded with a real prize. I'm pleased to see, however, that my first aim was good. I think I killed my cat as clean as a whistle."

Hendry, out of sheer pique, brought down a Louisiana blue heron, and two admirable water turkeys. The former was wanted for mounting purposes by John. Time was passing too rapidly for another try at the bass, as Mr. King wished to



The author many miles out on the new Tamiami Trail Canal road. He carried along in the machine a complete hunting and fishing equipment and could stop at a moment's notice, also carried medicine kit and could doctor any ill, from gun wound to moccasin bite. Mr. Larned intends to cover about a thousand Florida miles this winter and will collect data for a third Forest and Stream Story

complete his observations and scientific soil-rummaging for the property owners before dark. A hundred yards on, the creek shallowed out and scattered into many branches, penetrating the Everglade area like a system of marvelous arteries. Mr. King determined to investigate one of these weird water-ways, and the pole was used in the shallow water, while Hendry, seated forward, hacked a clear path, when the overhanging mangroves interlocked and prevented further progress. It was 'Glade country; they could tell this by the character of the soil—black, spongy, fibrous and laden with brilliantly green growths.

You who are fond of duck hunting, fishing and an occasional panther, cat or wild hog, should look up this far place, if the spirit of Adventure is in you. To set forth its real charms or to properly express it in words seems quite fruitless. Between Dr. Tiger's Lake and the Gulf there is a danger trail. We grant you that. And the creeks into the Everglades, from that mystic body of water where a hero lived and died, are strange, uneven trails in a romantic setting. But it is all worth the effort and the peril! Once there, you experience a sense of infinite pride. It is an achievement—a sporting conquest!

What are the whipped streams of your usual haunts? They seem oddly inadequate after this Gulf trip. Bass! Ah, but bass from noiselessly moving waters that dance with the splendor of mirrored nature. It resembles a stage setting for some outlandish motion picture scenario. Nothing is quite real. There is so much game—so many birds in such fantastic variety. Yellow and black crested night herons look as if they had been freshly painted by an artist in a lavish mood. A snowy egret, like a lady's kerchief, flutters down from loops of moon vine—and is gone. Curlews that you have never seen before—not even in books—stalk sedately past, their heads cocked on one side and a single bead-black eye staring at you rather contemptuously. The hunters are few. A trap is almost unknown. Turtles are as thick as the very ferns that drape their shimmering backs. We wish to stress the observation that this is an entirely NEW sort of hunting and fishing. You find yourself rather more inclined to sit and look than to drop a line or fire a rifle. Cold steel becomes a spe-



Good hunting in Florida is a foregone conclusion



Our friends had come prepared to hunt like "regular fellers" and came back loaded down with deer and turkeys

cies of desecration. Things are more beautiful than you imagined they could be anywhere on earth.

But we must hurry on, with fragmentary notes of the remaining days up Lossman's River, for our real sportsman's story lies further northward still. It should be remembered that Mr. King was not here for the pleasure of it. He had not been sent out from Miami to hunt or to fish. For the time being, at least, these must be incidentals. In his quiet, unobtrusive way, he had been studying the "lay of the land." His little red book was beginning to show pages of baffling maps, drawn with a hard pencil, in a copper-plate technique, at once comprehensive and ingenious. He had taken specimens of soil and of rock. He had followed the courses of many rivers and weighed the future worth of tractless miles, half under water. With his glasses to his eyes and his note book on his knee, he would sit for hours, sweeping an open stretch, where hammock and mangrove jungle joined the flat monotony of the Everglades.

It was while they were far up the narrower stream that one of those sudden rain storms came beating down through the live oaks and cypress. The steam oozed up from the black earth and solid sheets of water came glancing through the undergrowth. As speedily as possible Hendry rigged up a tarpaulin cover for the boat and all three huddled under it, disliking the thought of soaked garments. But the rain did not stop and the afternoon waned and darkness came unheralded. It was agreed that they would camp just where they were, at the end of a tiny mangrove island, until morning. It cleared by eight o'clock and a fire was lighted on shore, after much difficulty. Hendry, however, was an adept at this, whether wood was wet or not. They roasted the birds and made a decent meal of them, together with such picnicing odds and ends as the guide had shrewdly hidden on board.

And such a night! The great hollow infinity of dripping leaves and utter darkness hedged them in on all sides. The 'gators croaked and bellowed and the water moccasins played in the creek. Coons busied themselves on the outer lines of the flickering, hissing fire. A cat called—called in a human way—far up amongst the live oaks.

In the morning, the bass were wrapped in leaves and royally cooked for breakfast. Then they poled down stream and selecting a more navigable body of water, went a distance of three miles into the

Everglades. Now they caught their first glimpse of the big pine hammock men-



Here was real hunting and real sport by men who had learned their lesson in Big Cypress and who made every day Thanksgiving Day, if turkey-meat is at all significant

tioned by John Billy, rising rather austere from the flat reaches of saw grass. It was impossible to go further in the larger boat, so the glade skiff was unleashed and they all piled in, intent on a visit to this isolated hammock that had never appeared on a map.

It was two miles across—further than they thought at first sight, and hard going, what with the soggy sloughs and the lanes that were cluttered with saw grass, but they finally made it, and pulling the skiff up on shore, waded through the muck to more firm ground.

Hendry made a discovery.

"Indian camp been here," said he, "big one. See path—see lime trees and wild orange." This was based on the shadow of a path or trail that led, not from the very edge of the hammock, but from a secreted point fifty feet inland, and wound its circuitous length under the wildest sort of jungle brush. It required a Hendry eye to know that there ever had been a trail. He forged ahead, slashing with his machete and occasionally whacking in twain some giant vine as thick through as his wrist.

Nor were the guide's reckonings in error. An abandoned Seminole village was found some distance further on, gone into decay, yet still possessing interest for the trio. Nature had outlived the primitive dwellings, for there were no less than twenty sturdy lime trees, bearing fruit, of a kind and the guavas were discovered in greater abundance. There were guava trees of startling size—fourteen inches, perhaps, at the base, and palm, oaks, cabbage palm and fig.

What a place for a habitation!

"Why do they keep moving all the while?" John demanded, "you'd think they'd stay here, after clearing the ground and planting lime, orange, fig and guava trees."

Hendry shook his head solemnly and observed:—"No Indian always stay in one place. Go. Nobody know why. Sometime Head of Tribe die. Then everybody leave. No stay."

Small souvenirs were collected, and a venomous rattler shot on the outskirts of the hammock, just after Hendry had leaped backward to avoid its fangs. He stopped long enough to save the skin and roll it compactly for John's collection, for it was a beauty.

By easy stages, the party returned to the boat, lifted the glade skiff aboard and without further stops, eased back with the current into Dr. Tiger's Lake. It was nightfall and they turned in early.

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FREEDOM'S ARK—THE CANOE

THE CANOEIST PROPERLY EQUIPPED FOR A CRUISE
IS THE MOST INDEPENDENT CREATURE ON EARTH

By FOREST HARLOW

“THE happiest animal,” to quote an old writer, “is, methinks, the snail; for he carries his house upon his back and abides for the night wherever night finds him.” But for a real “happy animal” commend me to the canoe cruiser, who in many particulars has it “all over” the snail. Briefly explained, the properly equipped canoeist is the most independent creature on earth. He not only carries with him, in the narrow confines of his craft, shelter and food, but the craft itself is of such order that it carries him safely on the water while he can carry it easily on the land. In it he can travel as fast as he pleases and as far as inclination urges him; his strength and the length of time at his disposal are the only factors limiting his efforts.

As for a canoeing season, in its broadest sense there is no canoeing season. Taking it by and large, the whole year is the canoeist's season; if not in one part of this vast country, then in another, the canoeist may cruise from year's end to year's end. Even in those sections where the seasons are sharply defined, the canoeist may pursue his sport from May to November with much enjoyment and little inconvenience except from wet weather, which may be encountered at any time. Rain is merely an incident on a real canoe cruise, unpleasant perhaps; but it can be so well prepared for, especially if one has a decked cruising canoe that it is a negligible evil.

The canoe has been scornfully called “the poor man's yacht.” Well, why not? You wish to go on a vacation; you would quit the city and its crowded streets and get out into the open; a month at a place where all you wish is served, as one might say, on a platter, is entirely too expensive; camping out is monotonous to some people

who crave a change of scene; a cruise at sea would be ideal but the cost prohibits that also, and a motor trip has the same objection. Be not discouraged, lovers of the Great Outdoors, it was for you and your ilk that the canoe was created and if you would realize your outdoor dreams you have but to read on a little farther and learn what it means to go canoe cruising.

IN this world nothing is obtained without money. Having indulged in that platitude, let us find its application in regard to canoeing. It is probably the cheapest form of recreation to be enjoyed. Naturally, a walking trip could be arranged at less initial expense, but with the present high cost of shoe leather it might after all be cheaper to buy a canoe; and the comfort of padding lazily on, close to the shaded banks of some wayside river, is immeasurably greater than trudging along the dusty highway beside the stream, carrying your outfit on your protesting back. So let us meet the financial side squarely and may be its terrors will vanish.

The cost of the outfit can be arranged to suit the intending canoeist's purse. The amount that must be expended to secure a really good canoe and outfit is not exorbitant, and once obtained it will

last for several years if a little care is exercised in keeping everything in the best of order. A trifling amount of money expended each year will pay for necessary repairs and combat the ravages of time and the elements.

WHAT sort of people make the best canoe cruisers? That vast majority of people, who, having a small amount of leisure time, wish to make the most of it; who love the outdoors, and find their best enjoyment in a few days spent close to nature, surrounded by the peace and quiet of the woods and fields, entertained by the rippling streams and the songs of birds at dawn and twilight; who wish to conserve their strength and vitality during their leisure time, instead of dissipating it; who know how to build up their health by natural means—not medicaments, but sunshine, fresh air, pure water and plenty of it, both inside and out, and sound, refreshing sleep. These people make the best canoe cruisers for they feel that by means of the canoe they are able to enter into their rightful inheritance.

The boys just back from overseas will find in canoeing the form of recreation most adapted to their newly acquired ideas of life. The hours spent in camp life, tenting out under the stars, bivouac-

ing by the open fire, up and away at dawn—these have wrought an unrest in the fibres of their nature that will make it hard to settle back into the well-ordered routine of business and of conventional life. Canoe cruising is the ideal form of recreation for our returned boys; it offers all the freedom from convention, all the good-fellowship of army or navy life, without its burdensome restraint. The Golden Rule is the one law laid upon the canoe cruiser.

To any person who wishes to get every



By means of the canoe the Lover of the Outdoors comes into his inheritance

penny's worth from the few dollars he has to invest in recreation, canoeing and cruising offers more pleasures and more advantages than any other sport. To prove the truth of this assertion, buy a canoe and choose your outfit, take camera and fishing tackle—leave your rifle at home, unless it is a little twenty-two for target practice—and when the sight of the first green leaves of spring impels you irresistibly into the open, take your week-end outings in a canoe. Spend your vacation exploring some stream with which you are unfamiliar, or cruise nearer home if you wish. Provided you have been wise in your choice of a canoe and outfit, you will not only be well satisfied with the cruise, but you will be the owner of everything necessary for future cruises—except the commissary—and all for the same money you would have paid for a much more elaborate but less satisfactory vacation spent in some neighboring mountain or seaside resort.

MANY people may not at first realize the great advantages of a canoe over a rowboat. A canoe can safely follow a rowboat anywhere; but let the keelless craft take the lead and the rowboat is left ignominiously in the lurch at the mouth of some shallow stream where the canoe floats like a lily on the surface. Because the canoe has no keel it is sometimes thought to be unsafe or "cranky." This is no more true of canoes than of boats—if either is unduly cranky be sure it is from a fault in the construction. Naturally, care must be exercised in getting in and out—one must place the entering foot squarely in the center—and sudden lurches must be avoided, but if one keeps a low seat there is no danger of capsizing. The erroneous belief, held by many persons ignorant on the subject, that a canoe must be cranky and dangerous, is being gradually eliminated by the co-operation of the manufacturers in combining the maximum of beauty and strength with the minimum of weight and instability. Do not be afraid of a canoe—the feeling of security that comes with the perfect adjustment of physical balance to the motion of the craft reacts upon the mind and makes for sanity and mental poise.

The oarsman is a back-looker; the canoeist is a futurist. He looks ahead, faces and overcomes every threatened danger, chooses his course to a nicety through foaming rapids, or among angry whitcaps; and he can rest himself en route by paddling on one side or the other or by shifting from the sitting to the kneeling position. For hunting or fishing the canoe is the watercraft unequalled, for it floats as noiselessly as a leaf and there is no noise of the paddle in skillful hands.

Canoes are practically unsinkable because of their immense buoyancy. The amount of wood in a canoe, if contained in a solid block, would be more than sufficient to support a man in the water. So a man in a canoe carries a life preserver always with him—the canoe itself. If fitted with air tanks in bow and stern, safety is still further assured, and a sponson canoe cannot be sunk.

SO here we have our canoeist—self-contained in his small craft, "the poor man's yacht," ready for a cruise of a day or a summer with equal facility, his outfit snugly compact, but so complete that when night overtakes him he has but to make fast his painter to a friendly tree at the water's edge, take out his tiny alcohol stove, cook his simple meal, roll up in his blanket and sleep, like the snail, in the midst of his house, lulled by the myriad murmurs of the night into a sleep as sweet as that of Mr. Moneybags, out in mid-stream in his palatial motor cruiser or steam yacht. If you are hampered and restricted

by small streams in your vicinity, remember that there is more satisfaction in the successful negotiation of a seven-foot bend by an eighteen-foot canoe than there is in miles of straight paddling down some large uncompanionable river. To be intimate and within touch of the earth and yet to move with the greater freedom of mobile water is the chiefest charm of canoe cruising.

Your first cruise will convince you that here at least you are your own master. You realize that fishing may lure, hunting may attract, but canoeing compels, and the charm never lessens but grows greater year by year.

"CAW! CAW! CAW!"

THE NATIONAL CROW SHOOT OF 1919 IS A NOVEL COMBINATION OF SPORT AND CONSERVATION MEASURES

FOR several years the hunters of Canton, S. D., have held an annual crow hunt, and competition between the rival teams—the Get Them All's and the Never Miss 'Ems—has been high and hotly contested. It has been impossible for an event of such wide significance long to remain localized and the Du Pont Powder Company has inaugurated a National Crow Shoot, extending throughout the current year, governed by regulations and rewarded by trophies presented to the mightiest slayers of the black-winged marauders.

The destruction of the crow is a matter of great importance to sportsmen as well as to farmers. The havoc wrought in the corn field is self-evident; the depredations on the coveys are noticeable only through results and in many cases the dwindling numbers of game birds are caused more often by the voracious crow than by disease.

A young crow while in the nest will consume an amount of food equal to three or four times its own weight, and only a small part of this food consists of insects. Most of it is made up of the eggs and the young of other birds, which, if left alive, would be of benefit in the protection of crops.

Insatiable egg eaters, they scour the fields, hedge-row, thickets and orchards for nests of birds and even for the eggs of the barnyard fowls. They follow the wild ducks to their nesting grounds in the far North to feast on the eggs and young. Prairie chickens suffer severely from their depredations and the pheasant preserves are the frequent victims of their marauding habits.

In its bulletin, the Bureau of Biological Survey says: "The destruction of nestling birds of highly beneficial species is not to be condoned and constitutes one of the strongest arguments against the crow. On game farms, preserves and in suburban districts where it is the desire to foster small birds, the crow population must be within limited numbers."

All this is the *raison d'être* of the National Crow Shoot, whose clever slogan is "Conserve the Grain; Protect the Game; Remove the "Caws."

THE crow has the universal reputation of being a wise, wily and wary bird. Yet it is surprising how easily they are fooled by anyone who can properly manipulate a crow call. Indeed, the calling-in and shooting of crows by an expert is a revelation to many, who all their lives, have known and hated these black marauders of the fields and woods. The crow call is a small wood instrument resembling a whistle and can be purchased from almost any sporting goods dealer or hardware store for from 75c to \$1.00.

Preparatory to calling in the crows, the shooter should conceal himself carefully and remain as quiet as possible, for the crow has wonderful eyesight. Many crow hunters even try to wear clothing that will not contrast sharply with the environment. In using the crow call it is desirable to try to imitate the cry of a young crow in distress and to indicate to the older crows that their young are being attacked by some other bird, upon which they will immediately start flying toward the point where the caller is concealed. It is important to kill the first crow shot at as otherwise the crow will give a warning call that will alarm all the other crows in the neighborhood and they will not approach again for some time at least. The birds should be fairly close in, not over 35 or 40 yards, in order to insure a kill with a choke bore gun.

Among other methods suggested for luring the crows within range, the following may be recommended. A stuffed owl with movable wings placed up in a tree and operated by cords brought down through rings to the concealed shooter, used in conjunction with a crow call, has proved effective in many instances. If a wounded crow is captured it will serve as an excellent decoy for attracting other crows. One farmer writes that by placing a large piece of meat or the carcass of some animal in a field and then getting under cover at a distance of 40 or 50 yards he has seen from 50 to 75 crows gather around the meat and has been able to kill ten or more with a single

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AFTER BASS WITH FLIES

A BASS BUG IS A WEIRD CREATURE, RESEMBLING NOTHING THAT CREEPS OR FLIES, BUT IT CERTAINLY GETS RESULTS

By NOA SPEARS

ALL the signs were propitious. Several warm days had mellowed the brisk fall weather, until the nights were getting less cool. The moon was young, near the half, so the nights were dark except the early evening hours, and last but not least, there were some clouds in the northwest and my rheumatism told me there was going to be a change in the weather and maybe rain. Now I don't know whether you other fellows believe in such things, but I admit I do and I have especially noticed that they "bite" just before weather changes.

Our party was soon made up—five in all, with three fishing and two looking for squirrels. The three of us were equipped with 4¾ ounce rods, No. 1 Automatic reels, and quite an assortment of so-called bass bugs, which are cork bodied, impossibly large flies.

After a run of an hour and a half in the cars we arrived at Medina Lake, which was our objective. The cedar covered hills lay as smoothly as the surface of the lake itself for scarcely a breeze was stirring. Billy and I took the lighter boat and proceeded to fish our way to camp while the rest of the party came along later in the larger boat. Hardly had I pushed off from shore when Billy made his first cast and was immediately connected with a pounder, which came out of the water three or four times and then started to dig into the moss which grew upward from the bottom three or four feet. By the time we reached our camp ground a mile below, we had fifteen, all about the same size, a foot long.

Arriving in camp we made things ready for the night, gathered our firewood, spread the cooking outfit handy to the fire, and soon had supper sizzling in the pan. Fish? Well, I guess—one-pounders, fresh killed, split into halves, rolled in corn meal, and fried slowly over the glowing coals till each piece was a warm brown and done to a turn—a few strips of crisp fried bacon by way of trimmings—about three slices of toast apiece, done over those same coals on a broad fork, and buttered. Then spuds, black coffee and a pot of Boston strawberries, cooked at home and still warm. To finish, a jar of homemade fresh fig preserves and a package of sweet cakes such as are sold by every grocery store. I claim that meal can't be beat at the finest restaurant in little old New York.

SUPPER cleared away, Billy and I decided to try an experiment in night fishing with white flies. So we paddled off from shore and began casting, I using a large fly with white wings and tail, red head and aluminum colored

body, while Billy's had a yellow head and body. We had never tried these before so were really surprised when our first cast was rewarded with a hard strike and a nice fish was soon landed.

The water was dead calm and not a fish jumping, but between 9.30 and 11.30 with only half a moon shining we had at least one hundred and fifty strikes. A great many of these missed entirely and we concluded it was due partly to the fish seeing the white hair of the wings or tail but not seeing the body of the fly, hence they struck short of the hook which depends from the body, and partly because we could not see the fish rise so quickly as in daylight and failed to strike in time to set the hook.

We landed two that weighed two and one-half pounds each, six that weighed a pound or slightly more, and fifteen or twenty others ten to twelve inches long, which we sent back to grow up.

The water was down about two feet from standard and we have usually had better fishing when it was at this stage—particularly seeming to get more big ones. Billy and I have a pet theory that the bigger ones lie in certain favored places, such as rocky ledges, by stumps and especially in the deep pockets in the moss and when the water is higher they do not see the flies or if they see them, will not rise to them beyond a certain distance. Then we also believe that their food supply is somewhat diminished as the shore line contracts and they are just naturally hungrier in low water—but of course that's just a couple of notions of ours and if Mr. Bass could explain he'd



He immediately connected with a pounder

likely as not spring a new one on us that would prove how little we really know about his commissary or his habits. There is one thing we have wondered over a little and that is how we ever get the bass interested in the flies at this time of the year when he is living principally on crawfish. The crawfish are at the bottom, even in deep water, and Mr. Bass must go burrowing around into the moss looking for them, so how does he see the flies eight or ten feet above him?

Nevertheless he does or rather he did the day I'm talking about and before five P. M. the next day we had taken over one hundred black bass and a few rock bass, though we call 'em "goggle eyes" in Texas. All that measured under twelve inches were slipped back into the water and we had fifty-four to put in the ice box when we packed for home. The one-pounders made up the bulk of the catch and gave the best account of themselves in the fighting, but the half dozen two-pounders added materially to that pardonable pride one takes in showing his string at the end of the day and remarking nonchalantly, "Oh, they were striking pretty good." Of course there was one real dandy—in fact it isn't quite a perfect day unless there is one—and Billy got ours in a real spectacular manner worth the telling. It was just after lunch, about two-thirty, and I was paddling him slowly along over a rocky shelf grown well with moss and he was making long casts out past the edge of the shelf over water twelve or fourteen feet deep and retrieving his fly in little supposed-to-be-buggish jerks. Usually he'd get a strike where the shelf met the channel though not always. After he'd gotten three or four small ones he got a heavy strike with but little display about it and the fish went for bottom out in the deeper water. I knew it was a big one and he remarked that he had on the biggest one of the day. After about two minutes deep play the line relaxed and Billy said "He's off"; but at that instant I saw a big fish coming through the water toward the boat and he was throwing up a wake as high as your hand is wide. In a flash that fly rod took a nose dive and then bucked to right and left like he was dropping a couple of thousand feet "out of control."

Well, to make a long story stop, Billy landed him in about four minutes without using a landing net. He was twenty-two inches long and weighed six pounds.

Then we began to decide what had really happened and agreed on this verdict. The first fish was a smaller one and got rid of the fly in some fashion while he was deep in the channel and the

bigger one was looking on and likely as not trying to take the tempting morsel away from number one while the battle went on—I've watched this happen many times when using these flies—and when number one succeeding in spitting out the fly, number two, the big one, made a grand rush for it and beat his own previous record over the same course.

The most unusual feature of the trip was that they did not strike readily in the day time at any of our "bugs" except a rebuilt bug, having a pomegranate colored body, grey tail and snow white buck-tail wings. It looked like nothing living or dead, and Billy and I concluded it was just a case of visibility and that it got 'em because it got their eye by its size and light colors.

SPEAKING of bugs—do you know the manufacturers of certain patent bugs? I do not, but I know their products and here's a tip to the two of them, which if they're receptive they'll use. One man's are the most lifelike and best wearing—but the other fellow's are larger and will get bigger fish and more fish in deep, dark, or cloudy water. But

—one of these bugs will last about one day in use.

Now no real sportsman begrudges the fifty cents they cost each, but he hates to see his bug that is getting the fish going to pieces cast by cast till it has gone down so in bulk that it no longer attracts. The use of real bucktail hair seems to overcome this trouble and tying with waxed dental floss prevents slipping when dry.

I suppose one reason they wear out quickly is that being bulky, though light, it is difficult to cast them with a single back and forward cast and almost every cast must be worked out with three, four, or even five false casts, so that one finally drops the fly forty-five to fifty feet away from the boat. The big fish are most often caught on long casts and after retrieving the fly slowly until within fifteen or twenty feet of the boat, fully half the fish that rise will apparently see the boat and miss taking the fly. A line heavier than usual seems to assist in getting these big flies farther out. Oh, yes, of course I make some of my own—weird creations—and possessing not a single stroke of art, but they appear attractive to the fish and most atrocious to my wife,

who always jumps when she gets hold of one unexpectedly when emptying the pockets of my fishing clothes. They're easy to make when you've learned how and I will tell you how in the next issue.

JUST as the sun dipped behind a cedar covered bluff, we began to transfer our luggage from the boat to the car and in five minutes were climbing out of the cañon toward the good road home.

As we topped the last hill overlooking the lake its waters shown like molten copper as the slanting rays of Old Sol filtered through those same clouds in the west which had been one of the harbingers of good luck that we felt at the outset of the trip. The "change" was in the air but still deferred, and we all wished we might spend another day casting the big "bugs" for the big bass.

A few more miles and the lights are switched on, the mantle of night seems suddenly thrown about us and the events of the day glide into memories—memories fraught with all the glamor and gloriousness that only the man who goes to the woods and waters for companionship can really understand.

THE LEOPARD OF THE LAKE

THE PICKEREL IS DISTINGUISHED BY ITS EXTREME VORACITY AND HUNGER SEEMS TO BE AT ALL TIMES THE PARAMOUNT ISSUE WITH THEM

By LEONARD HULIT, Associate Editor of FOREST AND STREAM

IT is with some misgivings that I prepare a short article on the pickerel—not because my conceptions are not clear enough to me, but there has been in the years past so much confusion in relation to its proper classification and just what its relations to other closely allied species are, that there should be a distinct line of demarkation made and a thorough understanding had of this important angler's favorite.

To many, in fact to the majority of people the name "pike" is all embracing and includes the entire family of this species, when as a matter of fact there are very strong lines of distinction, and save in the general contour of body, the fish are quite dissimilar. There is, however, one characteristic which is all-embracing and is no doubt one of the reasons why the average fisherman does not distinguish between the varieties, viz., the extreme voracity of all the family, and no matter where the specimen may be taken the same propensity exists.

THE "pike" family is one of the oldest of which man has record, and in some of the varieties is native to all the northern and temperate zones. The most extravagant stories are extant in old volumes of the size and voracity of this fish as well as to the extreme age to which some of the old specimens have attained; these records, however, are of not much interest save us curiosities at this date. It is rather the knowledge as to where and how this superb fish may be obtained that claims more attention, as well as to make clear the

distinctive differences which exists. The family embraces the muskellunge, the "banded pickerel," the "brown pickerel" or "pond pike," and the very important "chain pickerel." The latter is the fish that most anglers will meet with in nearly all the Atlantic coast states; it holds the anomalous position of being a "pike" while the true pike is never a "pickerel." The contour of body, as well as the fin assemblage, is identical in all the species with the exception of the jaws, which in the pickerel are upper and lower, almost of the same length; while with the muskellunge and the pikes the upper jaw is much the shorter and fits into a groove in the lower jaw, when closed, in much the same manner as some of the crocodiles. Again, the markings on the pikes are either bands or mottled effects, while on the pickerel the succession of well defined links resembling a chain are never absent and are one of the distinguishing features. This gave rise to the name, and in Colonial days it was given the distinguishing name of "federation pike" as these links are usually thirteen in number along the central line, and are black, while the body is usually of a yellowish green shading to nearly white on the belly.

While the average angler in from a trip will say he has had a good day with the pike and has taken maybe a half-dozen, the chances are strong that he has not taken one, particularly if he has been fishing near the seaboard anywhere from Maine to the Gulf waters. While pike do exist in many of the waters where pickerel are met with, they are so

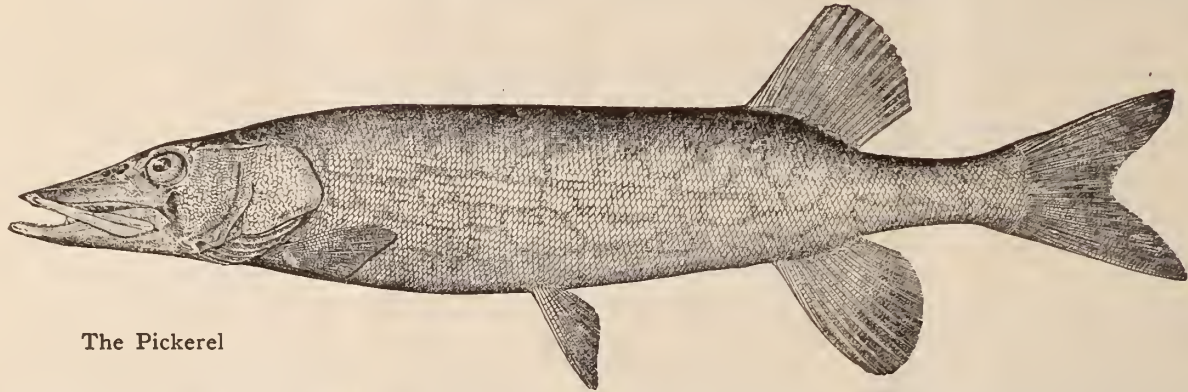
small as a rule that they are usually termed "jack" and are thrown back into the water. If the fisherman was at all observant his entire catch would reveal that pickerel were on his string.

ANOTHER important feature belonging to this fish is that he alone of all his tribes visits salt water and that is why I have included it among these sketches. If there are any other of his relatives that have this habit I have never met with it, neither have I ever heard that such was the case. While it is regarded as strictly a fresh water fish, and can and does live where it cannot reach brackish water, still it is more abundant in streams where they empty into rivers and bays and is to be met with far below salt water limits. This is particularly true of Barnegat Bay. I know of no stream which empties into that important body of water which is not prolific of the pickerel. The Metedeconk river, Cedar creek, Tom's river and all the adjacent streams are at the proper season the best of localities for the sport. I have fished over all the above mentioned waters for many years and, as a matter of fact, do not permit a season to pass without one or more trials over the grounds that have been mentioned. In my boyhood days I have seen these same streams netted and tons of pickerel taken, always drawing the nets where the streams entered the salt water bodies. Of course in those days there were no restrictions on netting and the slaughter of these fish was at times prodigious; and I would not be at all

surprised that if close observation was made it would be found the same condition prevailed in many of the coast states besides New Jersey—that is, that many of the streams emptying into the arms of the sea hold innumerable numbers of these fish. I would not argue, however,

vision is legitimate and welcome prey as well as young ducks, frogs and a great variety of other objects. In the stomachs of large specimens rats have been found and hunger seems to be at all times the paramount issue with them. I was once fishing with a friend in a lake ad-

marked traits and habits. They apparently enjoy lying concealed behind some cover such as a bunch of water grass, spatter-dock or lily-pads, or when they are to be found watching motionless for any unsuspecting thing to approach, when with the swiftness of light they will



The Pickerel

that they run to the ocean proper. I have no knowledge that they do; but they do trade down and into brackish water when opportunity affords and it at those points where they are met with in the best of condition.

THE pickerel is not at all fastidious as to what he may get to eat and when hungry will strike at almost any moving object. Any of the smaller fish which come within his range of

adjacent to the ocean when he caught a large pickerel which had gorged a catfish. Its sharp spike-like rays were extending through the sides of the pickerel, and would seem to have caused such suffering that no desire for food would have been present; but there was the evidence which could not be doubted, the fish was feeding while in this deplorable condition.

In my early days I lived where these fish were most abundant and had many opportunities to be witness of their

flash out and gather in the quarry. The victim has but little chance for escape, once the murderous teeth are fastened into its flesh. I have often seen the largest fish lie in such quarters absolutely motionless, save the occasional almost unperceivable motion of tail or fin, just enough to keep their position and frequently with the head just at the surface of the water, and while yet in my teens I often shot them in that position.

(CONTINUED ON PAGE 84)

THE KILLING OF THE OUANANICHE

ONE OF MANY ANGLING IDYLS FROM A COMPANIONABLE BOOK THAT TEMPTS YOU OUT-OF-DOORS AND KEEPS YOU THERE, "MAGNHILD, A TALE OF PSYCHIC LOVE"

BY DR. JOHN D. QUACKENBOS

"BUT tell me, do you really have the fish of the Grande Décharge in Lake Sunapee?"

"Yes, we have been planting them here for years, and if one takes a fancy to your spoon, Magnhild, you will realize in an instant that you are fast to the gamest of all American fresh water fishes. Now release the click, which checks the line from running out too freely when a fish is fast, by pushing up that button, and let the line pay slowly out as I row, and Miss Barrett will be ready with the landing net to help you. I am sorry it is not larger. We came out after bass. I was not expecting to show you the points of salmon fishing. There, I guess you have enough line out, I should judge about 100 feet. So push down the button and restore the click, and keep your thumb on the handle of the reel so that if a fish strikes, he will strike against something solid and be securely hooked."

"Oh! I see."

"And don't hold your rod straight out, at right angles to the course of the boat, but slant it toward the stern. There now, if a fish strikes, you have the best chance of holding him without shivering your rod or breaking your line, and he doesn't get so much spring that the hook will fail to fasten."

They had rowed a quarter mile or more over the ground where the doctor had expectations, when suddenly the rod was

almost twisted out of Magnhild's hand by the strike of a lusty fish.

"Give him line!" shouted the doctor, "take your hand off the reel handle, it's a big one"; and as Magnhild obeyed the instruction, the reel whirred merrily as the fish dashed away on the top of the water in a quick succession of leaps. But he failed to break his hold.

"Now check him, and reel in! Reel swiftly! Thank Heaven, he is making for the deep water, for there he is much more manageable. Now he is coming toward you with a rush! Reel with all your might! Well done! Keep on reeling. He is heading for the boat. His game is to cut under it and part the line. I'll foil him there. He is taking your rod right under the water. Hold on to it tight. Now give him line, as I force the boat ahead. Aha! he found only water for his purchase and he is thoroughly maddened. Be prepared for—"

"Oh! Doctor, what a magnificent spring," cried Rhoda, as a bar of living silver shot into the air, showering water drops into her face while the boat darted ahead. A second prodigious leap! The salmon cleared the water by four feet and turning a somersault in the air alighted on the bottom of the skiff—but only an instant did he keep company with the astonished occupants. A flash and a splash, and he was out of sight; but in his rapid descent, the line noosed the

bamboo handle of the little bass-net Rhoda was holding in readiness, jerked it from her startled grasp, and it sped away across the water in the wake of the frenzied fish.

"A ten pound ouananiche!" cried the doctor, "and he did not catch us napping. Keep your hand off the reel now, for he is ugly and may run one hundred and fifty feet if the net does not incumber his movements."

"How he goes, Doctor, and I love to listen to the music of the reel."

"No time for music now, Magnhild. Check him a little, and be ready, for at the end of his run he will make his leap paramount"; and verily as the doctor spoke, the salmon flung himself into the air, lifting the little net which had run out with the line and was midway between fish and fisher, a foot above the water, at the same time disengaging it so that it floated fifty feet from the boat.

"What shall I do now?" implored Magnhild, "and we have no net to take him in with."

"He is making for deep water. Reel him in cautiously, slowly, and if you are fortunate enough to exhaust him I will show you how to lift him into the boat without a landing-net. We have to depend on our wits in the woods, when modern appliances are lacking."

"But, Doctor, you can't lift that fish out of the water with that delicate lead-

er," interrupted Rhoda impetuously.

"Good philosophy, Miss Barrett. Face your fish, Magnhild, and be ready. He hasn't exhausted his ways and means of defense. He is deliberately heading for those sharp rocks over there by the point in hope to cut the line on one of them. He well knows every one, and you must turn him. Nothing like giving him the butt. Remember how it turned your trout up the brook, but don't check this fish too violently lest you tear the fly from his delicate mouth."

"Indeed, I do remember," and Magnhild at once suited the action to the word. After a series of vicious tugs, suggesting that he had been there before, shaking the taut line as a terrier shakes a rat, the giant fish, always met by the give of the pliant rod, changed his intention, and again drove up on the tantalizing line. But the doctor was prepared for this move, and three or four of his powerful strokes sent the boat well ahead while Magnhild reeled, so the salmon failed to get the slack he counted on and which by experience he knew meant freedom.

Thwarted in this movement, the desperate fish next bolted across the boat's course for the open lake at a rate of speed that fairly made the water hiss as the tense line sped through it.

"Hold him tight, Magnhild," directed the doctor. "Now, quick, take your hand off the reel handle, he is making for the deep water where he will probably sulk. Now press your thumb against the line on the spool so that he will not get it too easily and lose his head again, and rise to the surface to jump. We have the advantage so long as we can keep that fellow in deep water. Now he is up to his old tricks again, following the line of least resistance and doubling on you. Reel quickly and show him you are not asleep. And don't-reel-your-line-all-up-on-one-side-of-the-cylinder, else your check-mate is in sight. Look out for that; spread your line as evenly as you can over the spool. And we must follow the fish out into the lake a little, so as to relieve the strain on the line."

"Why, he has stopped running, Doctor, and hangs like a dead weight on the line. What is he doing, and what shall I do?"

"He is sulking. And that will give you time to take breath and prepare for his next move. Just hold him steady, for he is right down under the boat now, in water fifty feet deep. Take deep breaths and rest your arms. When you get ready to renew the fight—and you must not give him too much time to recover his nerve—twitch him. That's right, a little more savagely. It doesn't stir him, does it?"

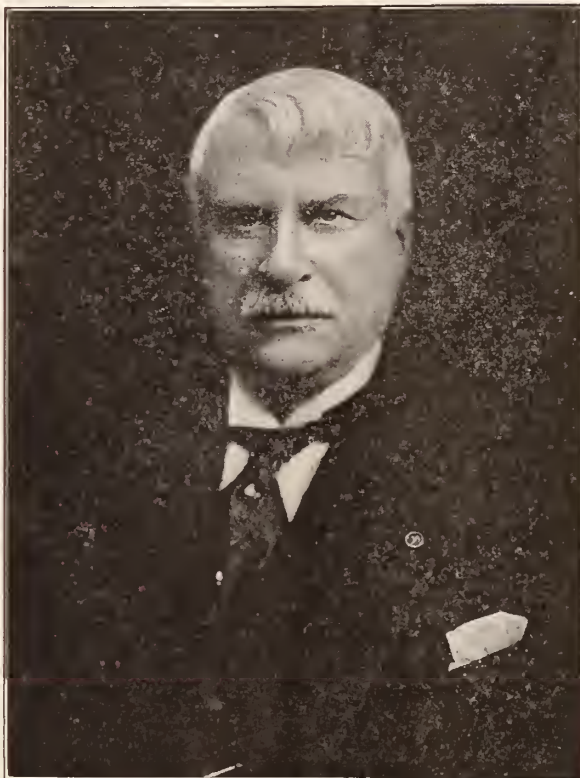
"Not in the least."

"Well, I'll teach you a trick that seldom fails. When hunting, we sometimes strike the trunk of a hollow tree with a stone, to start a squirrel out of his hole, and it usually succeeds. If you will apply this same principle to the present sit-

uation, you will probably scare your fish into another rampage. Tap the butt of your rod above the reel plate quite forcibly with your knuckles. Keep on doing it. Doesn't he respond? A little harder then, so that he can feel the vibrations through the tense line. He is on the move. He does not understand it. He never had a minnow in his mouth that stung him so cruelly and quivered like that. He has made up his mind to change his quarters, and so long as he will stay down and exhaust himself by runs near the sandy bottom, we shall find no fault."

"I think I am good for such runs if the tackle only holds."

"The tackle is all right, Magnhild. There are two things I never economize



John D. Quackenbos, A.M., M.D.

in—medicine and fishing-tackle. Life may be lost by an insufficient or hypothesized cheap dose. Big fish often cut acquaintance because of a flaw in leader or line. You are playing him very properly. Watch your line and spread it evenly over the reel-barrel, recovering it as tactfully as you can. But when you get him near the boat, be extra careful! When he sees us, he will make a supreme effort to escape."

"Oh! look at that beautiful silver fish," cried Rhoda, as she peered into the blue water and saw the salmon steered toward the surface by the shortening of Magnhild's line. "He is partly on his side and how it gleams!"

"Be wary now, Magnhild," continued the doctor. "These landlocks are incarnations of energy, and perhaps he has just let you lead him along so that he can take in the whole situation, but without any intention of surrender. Besides, this means a rest for him. I have seen a salmon jump out of the boat while the successful angler sat admiring its charms

as it lay apparently dead on the bottom board. A flash of purple-blue and silver, and he was gone to his captor forever. We have no net, remember, and that fish must be thoroughly asphyxiated before I attempt to take him in out of the wet. I believe he is getting ready for a final frantic dash; so handle the reel with your lightest touch as you gingerly take up the line, and don't hesitate to let him have everything his own way when he starts. I do not dare to try my landing scheme yet, he is far from giving in—and there he goes!"

The reel fairly screamed as the great fish tore through the water. "What a magnificent cut for the depths. But you notice, he did not break. He is losing his spirit fast. The next time you bring him up perhaps I can lift him in."

"His run is shorter, Doctor, and less spirited. He is giving up. Oh! I am so afraid I shall lose him."

"The surest way to lose your fish after such a glorious battle is to lose your head. Don't be distrustful, else you may unconsciously relax your vigilance and forfeit your prize. Reel him slowly and deliberately up toward the boat. Do you see him coming?"

Magnhild stood up, the better to obey the final instructions.

"Yes, I see a white shadowy streak away down in the water. He is on his side. You can see him now, can't you, Doctor?"

"Yes, swing the tip of your rod as you stand there, toward the bow and over my head. He is coming completely played out. Bring him over a little nearer—no fear of rushes now," and as Magnhild drew the fish within arm's length, the doctor, with a dexterity acquired by long practice, slipped his hand under the salmon, balanced it nicely in his palm, and before it had time to realize what was doing, lightly tossed it into the boat. The moment the fish touched the carpeting, he realized dimly

that he was out of his element and began instinctively to curl himself for a jump, when the doctor shouted, "Cover him quick with your skirts, girls! Be game, throw your skirts over him, or he may fling himself out of the boat!" The order was automatically obeyed, and the great fish leaped to his death against the restraining folds of undermuslin. Then the doctor unloosed the fly, and to make assurance doubly sure struck him a sharp blow on the neck with a wooden mallet he carried for the purpose, and the three gazed for a moment in mute admiration at the lissome figure of one of the gamest of his race.

"And now I'll weigh him for you," said the doctor, producing from a drawer under the seat he occupied a brass fish-balance, and hooking it in the upper jaw noted the index go down to 9 lbs., 14 ounces.

"Magnhild, you are a true fisher-maid,"

(CONTINUED ON PAGE 84)

FOREST AND STREAM

FORTY-EIGHTH YEAR



FOUNDERS OF THE AUDUBON SOCIETY

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Nine East Fortieth Street, New York City

THE OBJECT OF THIS JOURNAL WILL BE TO studiously promote a healthful interest in outdoor recreation, and a refined taste for natural objects.
 August 14, 1873.

COLONEL THEODORE ROOSEVELT

AS this issue goes to press the country is saddened by news of the death of Colonel Theodore Roosevelt, probably the most widely known sportsman in the world. Colonel Roosevelt always cherished a great affection for *FOREST AND STREAM*, as it was the paper for which he wrote the first of those stories of hunting and adventure which have become familiar as far, and farther, than English is read. When this paper was reorganized, the meeting to elect the present Governing Board was held at Colonel Roosevelt's home at Oyster Bay.

An ardent sportsman, a fair antagonist, a forceful personality, has gone from among the walks of men. As long as men's spirits thrill at tales of the Chase and the Great Outdoors, and as long as the printed page endures, this great-hearted personality will continue to speak to generations of sportsmen yet unborn.

A YEAR OF THE AUDUBON SOCIETY

THE annual report of T. Gilbert Pearson, Executive Head of the National Association of Audubon Societies, just being issued is a concise document covering a wide range of activities. In the past year, Mr. Pearson, at the request of the United States Food Administrator, went to the southern coasts to investigate a wide complaint that the brown pelican was destroying valuable food fish and should, therefore, be exterminated. By visiting all the pelican colonies from Mexico to Key West, he learned, on the contrary, that these birds, of which he estimates there are only 65,000 adult specimens, prey almost exclusively on fish not eaten by man and which are destructive to the young of the fish ordinarily offered in our markets.

The sea gulls, accused of despoiling the sheep ranges on the islands off the coast of Maine, were

found, after careful study, to be a material aid to increasing the vegetation in those regions.

Valuable contributions to our knowledge of the practical uses of birds were made through the Association's Department of Applied Ornithology in charge of Mr. H. K. Job. At his experimental bird farm at Amston, Connecticut, Mr. Job has made important investigations and has also distributed information to neighboring land owners, and spread facts through his lectures and writing, as well as through the publications of the organization. Readers will recall the interesting account of the wild fowl farm at Amston, published in the May issue of *FOREST AND STREAM*.

The Association has been active in saving the Klamath and Malheur Bird Reservations in Oregon and California from being dismantled and drained on the plea that the land was needed as ranches. It was shown that the birds which found refuge there, especially in the breeding season, justified the protection afforded them as the winged conservators of grain and fruit crops.

With the passage of the Enabling Act of the Migratory Bird Treaty, the means for shielding the birds from destruction on their way from the United States to Canada has been greatly increased and with the coming of peace, the champions of the wild life of the forests and thickets, will have both federal and state legislation to aid them.

Despite the many demands made by the war, the Association and its affiliated societies in all parts of the country, have made steady progress. The attention which has been focused upon the economic factor in bird protection brought into the organization one hundred and sixty-one Life Members, the largest number ever received in one year in its history. This meant an addition of \$16,100 to the much-needed permanent endowment fund, \$10,000 of which was invested at once in bonds of the Third and Fourth Liberty Loans.

The Junior Classes, which are devoted to the study of bird life under the direction of teacher volunteers, did not increase as much as usual owing to the many needs of the War Stamp and Red Cross Funds and other worthy causes connected with the war.

The fiscal year closed, however, with an additional 150,000 American boys and girls enrolled in the 6,297 classes of the Association distributed throughout the Union. The work of instructing the younger generation in the ways of birds and in nature observation was made possible, in a large measure, through the generosity of the late Mrs. Russell Sage, General Coleman DuPont, George Eastman, and a benefactor, unknown even to the officers of the Association, whose subscription was \$20,000 for this purpose.

The Sustaining Membership now numbers 3,890 persons, who pay an annual subscription of \$5 each. The total receipts for the year were \$121,535.28.

The movement toward the erection of a permanent building with museum and administrative offices will be urged during the coming year.

DIED A SOLDIER'S DEATH

THE Audubon Association met a great loss in the tragic death of an ornithologist of its staff, Mr. Walter Freeman McMahan, familiarly known as "The Bird Walk Man," who was killed in action while on duty as a soldier in France. His keen observation of nature made him useful as a scout, for

no camouflage concealing enemy machine gun nests, nor disguised snipers, could deceive him. He was shot finally by a German sharpshooter, but not until he had led many a successful foray against the hidden foes. Arrangements will be made for continuing his work with the Audubon Association as a memorial to him, if the necessary funds can be found.

Mr. McMahon was a frequent and valued contributor to the natural history department of *FOREST AND STREAM* and has made many friends among its readers who will keenly miss their friend.

THE NATURE WORSHIPPERS

WHAT real Sportsman is there whose very mind and body do not thrill to the Flying Wedge of geese, honking its way through the sky to its nesting place, far away? The whirring rise of the quail covey rings some deep, vibrating chord, stirring him as not even grand opera music stirs. No drum made by man throbs, to him, with such gripping beat as the drum of the ruffed grouse.

The first flight of woodcock across the frosted full moon stirs his soul as with mystic thrill of solemn religion. And no fire worshipper in days gone by ever loved the miraculous flame as your sportsman, lying in dreams where the camp fires glow in wilderness of palm or pine or spired spruce, where the wild children, feathered or furred, or glistening with wondrous scales, whisper or ripple their night songs to the skies.

If there be any ardent Nature Worshipper it is that genuine sportsman, lying in the reed-hidden boat, in the lagoon just back of the dunes where the great ocean booms, where, through the weaving mists of dawn the mystic rustle of wings come while the glory-light rolls up, avant courier of the red ball of the sun, dyeing the world of waters and wild reed, sand and dune of ocean, with colors of flaming jewels where the wild duck throngs on his great migration.

Your real sportsman is in fact a true Nature Worshipper, for his whole being, body and mind and soul ring and respond.

He knows Nature, not alone with his head, but with his eyes and heart, his emotions and his instincts. And always he is a sane idealist. And that means he is a religious man too, in the fundamental sense of that term.

Creedless he may be and often is; but his soul is alive. He is a Nature Worshipper. And for that reason, Nature tells him things she reveals to no other with like charm and convincing power.

A WORD FOR THE CANOE

BARRING the raft, the canoe is probably the most ancient form of floating craft. Long before the mechanically complicated process of rowing with oars braced in oarlocks was discovered, the primitive savage threw his weight against a pole pushed into the river bed and found out that the log on which he stood went in the direction in which he wished it to go. It was probably a surprised aborigine who discovered that water also had sufficient resistance to a pole to move the craft, and in this humble manner the noble art of paddling may have been born.

From earliest days to the present there has been a fascination in the canoe, for the craft has held its ancient, simple form in the face of mechanical inventions which have been applied to other primitive articles. Its lightness, its facility of motion, the

intimacy with Nature which one feels when suspended over a limpid pool, close to its surface, within reach of its substance, separated by only the merest shell of wood from the mobile water and yet held as safely and securely as though the craft were of staunchest steel—these things make for a love of canoeing and cruising that is inherent in mankind.

The sport appeals to all ages. Probably the youngest canoeist of whom we have record was Moses of Biblical repute, who when a mere infant was set afloat by a discerning mother in a canoe of sorts, in which, so History tells us, he floated to a life of ease and luxury, even becoming the equal of kings. All good canoeists have experienced that sensation. Good fortune still attends the lover of the sport of canoeing, for his are the treasures of health, sound sleep, good appetite and digestion, and a contented mind.

It is a fact often noted among outdoor people that one never tires of canoeing. The pleasure of each summer's cruise will be as great as the delight you felt at the conclusion of your first outing. It will never decrease, for the infinity of places to be visited—of streams to go up or down until they become known and loved highways—of camping wherever you will and for as long as you list—these component parts of the pleasure of canoeing give a sweet savor to memory and a piquant zest to anticipation.

JOHNNY, GET YOUR GUN!

IT IS generally recognized that the crow is not only an arch enemy of the farmer but is also a serious menace to the breeding and propagation of game. The crow's record is like its coat—about as black as black can be. In the interest of the conservation of grain and the protection of game and insectivorous birds, you are invited to take an active part during 1919 in a National Crow Shoot, the chief purpose of which is to wage war against these pests, particularly in sections where they are numerous.

It is estimated that every year insects cause a loss of millions of dollars to the farmers, truck raisers and fruit growers. The farmers are the producers and whatever loss they sustain affects every consumer in the country. Song birds are the natural enemies of all insect life—song birds alone can keep in check the ravages of insects. Crows destroy birds, birds destroy insects, insects destroy crops—therefore, kill the crows and save the crops.

It is certain that some concerted action on the part of farmers and sportsmen to reduce the number of these pests will conserve a large quantity of grain and thus prove an important factor in meeting America's obligation to feed the world during these critical years, at the same time giving practical support to the protection and propagation of game in this country. It is for this purpose that the National Crow Shoot, which is mentioned elsewhere in these columns, will be conducted during 1919.

AN INVITATION

SEND us a postal card of fishing news or experience or incident. Our columns are always open, and their interest depends upon the number and diversity of communications which appear there. No other journal in this country begins to give the amount and variety of literature printed here from month to month. It is the ambition of those in conduct of *FOREST AND STREAM* to increase its value and interest to the American sportsman.



ANTELOPES OF LOWER CALIFORNIA

THE PRONGHORN IS A DISTINCTIVELY NORTH AMERICAN ANIMAL, IN SWIFTNES OF FOOT SURPASSING ANY OTHER NATIVE MAMMAL

Of all mammals, the pronghorn is most distinctively North American, for it is the sole representative of a family of ungulates found nowhere else. In its anatomical structure it combines certain characteristics of the deer, the wild cattle, and the true antelopes. It is the only hollow-horned ungulate that periodically sheds the sheaths of its horns; another unique feature is the absence of dew-claws on its feet. It is a splendid example of a highly-specialized, essentially plains-living creature, and all observers agree that in swiftness of foot it surpasses any other native American mammal. Pronghorns formerly ranged over practically the entire western half of the United States, northward well into Canada and southward in Mexico to the edge of the tropics.

The interesting letter from Dr. George Bird Grinnell, in the December FOREST AND STREAM, with reference to the autumn migration of the pronghorn, and the accompanying editorial on "The Vanishing Antelope," make it appropriate to call attention to the fact that a considerable though rapidly diminishing number of pronghorns still exists in the northern part of the Mexican State of Lower California. These pronghorns belong to a distinct geographical race or subspecies, described, in 1912, as *Antilocapra americana peninsularis* by Mr. E. W. Nelson, the Chief of the U. S. Biological Survey. The form of antelope inhabiting the United States and Canada is known as subspecies *americana*, while that of the Mexican tableland is called *mexicana*, making three races of this unique and highly interesting game animal on the continent.

Within ten years pronghorns were abundant in the arid basins of northern Lower California, but they have now been shot down to a poor remnant, along with the splendid Cocopah mountain sheep and other mammals that yield meat or trophies. Pronghorns in particular, judging from their history in our western states, seem literally to wither away before the onslaughts of hunters, their exceedingly delicate adjustment to a rather limited environment, and consequent non-adaptability, doubtless contributing much toward their speedy extermination. Nelson predicts a brief and unfortunate future for the Lower Californian race, and, in a territory as yet without game laws, the fulfillment of his prophecy is more likely to be hastened than delayed.

THE Natural History Department has been for nearly half a century a clearing-house for information of interest to all. Our readers are invited to send any questions that come under the head of this department to Robert Cushman Murphy, in care of FOREST AND STREAM. Mr. Murphy, who is Curator of the Department of Natural Science in the Brooklyn Museum, will answer through these columns.—[EDITORS.]



The pronghorn antelope

IN the spring of 1915 I had the pleasure of making an expedition into the little-known desert sinks of northern Lower California, between the delta of the River Colorado and the peninsular escarpment, for the principal purpose of obtaining specimens of pronghorns and other desert-living creatures that were desired for use in the Brooklyn

Museum's exhibit of desert life. My companion in the field work was Mr. R. H. Rockwell, chief taxidermist in the Museum, who subsequently mounted the animals collected.

We began our actual hunting on April 2, 1915, on the desert slopes west of the Pattie Basin. We had ended our outward journey the night before, and had made camp in the heart of the antelope country, seven miles from the nearest water-hole. Starting by starlight and moonlight on the morning of the 2d, we were off with the guide, Captain Funcke, just as the first faint streak of orange lined the crest of the Pinto Mountains. The sun rose red and sparkled on the heights of San Pedro Mártir, and for a brief while the desert was like a garden of cool, sweet odors. The perfume came mostly from a lavender "four o'clock" (*Abronia villosa*), but was mingled with the delicate scent of a small white primrose, a tall desert "Easter lily," and a score of other flowers, yellow, white, red, and purple. Mocking-birds were singing their best from every mesquite; a pair of croaking ravens circled over us; various lizards, just warming into activity, scuttled hither and thither. We spread out abreast about two hundred yards apart, keeping a sharp lookout ahead. The country was fairly open—with ironwood and mesquite along the washes, and groves of creosote bush stretching down towards the basin. In most places we could see around us for three or four hundred yards, sometimes even farther. Walking was difficult, owing to the fields of volcanic pebbles on the mesa, and the soft sand in the arroyos. The heart-shaped tracks of antelopes were visible everywhere, but were mostly old. Finally we came upon the track of a single buck which had apparently passed within a short time, and a few minutes later I spied the animal some distance in advance. I had scarcely time to crouch, before it started off on a lope, and, after we had trailed it about two miles, we gave it up and sought a new trail.

ANTELOPES begin to feed early in the morning, and cover the ground rapidly while they graze; but before the sun is high they almost invariably lie down to rest. If a band is discovered while feeding, the animals do not always run away at sight. They may instead stand and watch with curiosity, or they may even come forward

to investigate at close range. The last is what happened at our second meeting. I saw a troop of seven or eight bucks and does in the distance, and while we were stalking them, a beautiful buck, taking us perchance for a new kind of pronghorn, came cantering towards us, stiff-legged and proud. He stopped eighty or ninety yards away from Captain Funcke, who on bended knee, was watching him along his rifle barrel.

During the eleven days that followed, I saw a total of about sixty pronghorns, most often singly, but sometimes in groups of two or three. Only once, as related above, we saw no fewer than eight in one band, two or more of which were bucks; and on another occasion Mr. Rockwell killed a doe that was in company with four other animals. All that we encountered, with one exception, were hopelessly wild—as wary, indeed, as even such shy ungulates could well be. Moreover, they seemed to absent themselves for days together from large tracts of country through which we had hunted but once or twice. Under such circumstances, our opportunity for coming into close contact with them was very limited. Yet it seems worth while to record such scanty observations as I was able to make, together with brief data gleaned from the experience of Captain Funcke, who, in 1912, collected the type specimen of the peninsular subspecies.



Courtesy of the Brooklyn Museum.

Mounted group of Lower California Pronghorns in the Brooklyn Museum

A FACT of particular interest with regard to the Lower California pronghorn is that the season of the birth of its young seems to be three or four months earlier than the normal period for antelopes along the Mexican border of the United States. During our hunting in Pattie Basin, April 1-12, 1915, we frequently observed the tracks of does and fawns together. On April 4, our Mexican horse wrangler shot a fawn which he found sleeping among the creosote bushes. Three days later Captain Funcke collected two others of approximately the same size as the first.

The three fawns were very nearly half-grown. It was evident that they had all been weaned, for their stomachs were filled with finely-chopped, bright green, fleshy leaves, the whole mass being in a thick fluid state. I examined this pabulum carefully, and found only fragments of succulent leaves, with no trace of grass.

Captain Funcke felt quite certain that our three fawns had been born not later than the middle of February, which he

said was the normal time of year for the Lower Californian subspecies. If one were to judge by analogy with the fawns of white-tailed deer, the young antelopes would have been called at least three months of age. Now throughout the western United States, and wherever antelopes occur along the Mexican border, June is the month in which most of the young are born. Only rarely are the fawns known to have come into the world as early as May, although the birth season may be greatly extended at its later end. Dr. Mearns, for instance, once observed near the Mexican line a doe antelope with two small fawns on September 23, and he took both large and small fetuses from females killed in June.

Owing to the size and probable age of our fawns, the circumstances under

a doe in defending her family from a dog are sympathetically described by Hofer, but no doubt an antelope mother would put up a more desperate fight against coyotes alone than against a dog in the presence of its human master.

The ecologic significance of a birth season four months earlier at the southern end of the Colorado Desert than along various parts of the Mexican border is still to be divined. Doubtless, however, it has a close relation to the growing season of the annual plants, and is secondarily connected with the extraordinarily hot, dry summer climate of the northern Lower Californian deserts. The difference in the time of this most important of all functions must, of course, affect the antelope's whole life history. It must relegate the rutting period to early summer, instead of Sep-

tember or October as in the western United States; furthermore, it might be expected to have an effect upon the season of molt.

LITTLE specific information appears to have been published regarding the food plants of the pronghorn antelope. Caton, the author of "The Deer and Antelope of North America," writes that the wild herds live on "buffalo grass," and that captive specimens in his deer-park grazed freely upon standing blue grass, and also ate hay. Dr. Hornaday, of the New York Zoölogical Park, found the antelopes

which they were taken, and the corroborative evidence of such hoof-prints as we saw, there can be little doubt that they had been merely temporarily left to themselves. The doe antelope's custom of leaving her fawns in hiding, usually at some little distance from one another, while she forages for herself, is well known. Hofer, in *FOREST AND STREAM* for August, 1899, describes with what watchfulness and subtlety a doe returns to the place where her young are patiently awaiting her, concealed rather by their own quietness than by any cover. He states that the fawns go down on their knees, like lambs, to suckle, and that if the family becomes alarmed while the youngsters are nursing or playing, they "drop, as if shot, never stopping to fold a leg under them, but flattening themselves on the ground." It was in just such a "frozen" posture that our Mexican found the first victim.

In February, according to Captain Funcke, the Lower Californian antelope does are harried continually by the pestiferously abundant coyotes, which try to steal the young fawns. The tactics of

in the Pinacate section of Sonora cropping a species of desert plantain (*Plantago*) that grew in the lava fields. The Lower Californian animals undoubtedly subsist throughout most of the year upon various kinds of sun-cured vegetation, but during the brief spring season of verdure they seem to prefer tender leafage. Although desert bunch-grass, called by the Mexicans "guayeta," was common in scattered patches on the lower slopes of Pattie Basin, I looked in vain for evidence that the antelopes had fed upon it. Captain Funcke maintained that they ate no grass at any season of the year. The foliage of the trailing, lavender-flowered "four o'clock," *Abronia villosa*, which grew in sandy parts of the Pattie Basin, was a favorite forage. Another plant that they crushed and mouthed, apparently for the moisture it contained, was the desert broomrape, *Orobanch multiflora*, a parasite on the roots of other species. We found many of its flowering heads, uprooted and chewed, in the wake of browsing antelopes. Captain Funcke informed me

(CONTINUED ON PAGE 88)



For Blistered Feet

I HAVE often read of using soap as a preventive of blisters, but have never known how to apply it. An old relative of mine, when questioned, said the socks should be woolen, if possible, and that the common yellow bar soap should be coated on the inside from the ankles down, and that the application should be repeated for two or three days, by which time the feet would be hardened. I did not take much stock in the idea but I tried it, and on a long hike last summer I was the only one who did not suffer from foot troubles. This woolen socks were used and roomy, but not too large shoes; a shoe that is too large will ruin the foot almost as quickly as one too small.

R. L. HOWARD, Pittsburg, Pa.

Concerning Fly Dope

TO write, at this time of year, on the subject of dope may not be quite apropos, but the man with the long head makes a note of anything useful he comes across, against the future, while he of the long ears passes by anything that does not concern the immediate present.

A good dope was advocated by one of your correspondents several months ago. Let us call it the Three C's. Here is the formula:

- 2 parts oil of citronella,
- 2 parts spirits of camphor,
- 1 part oil of cedar.

Nearly forty years ago I began using a certain dope while fishing in the Adirondacks, and have been using it, as occasion required, ever since. Let us call it the Fisherman's Friend. Here is the formula:

- 9 parts castor oil,
- 8 parts sweet oil,
- 2 parts carbolic acid,
- 1 part oil of pennyroyal.

The past summer, owing to a very backward spring in the high lands of Maine, the usual aerial pests were uncommonly late in appearing, so that when my wife and I arrived at a certain camp in Piscataquis County on August 1, we found the mosquitoes still lively and most worthy representatives of the old scratch. Fortunately, dope was not lacking, and it was immediately brought into requisition and well tried out. We found both the dopes already mentioned very effective and about equally repellent to the mosquitoes. After we got matters on a running basis, I found that my wife pinned her faith exclusively to the Three C's, while I just as tenaciously clung to the Fisherman's Friend. The

reason is not far to seek, the former being considerably more agreeable to the besmeared one, while the latter is a good bit more durable, one application of it brings, I should say, more than equal to three applications of the Three C's. However, both are effective and can be recommended.

I had been told that a little oil of eucalyptus in a saucer standing near one's bed would give one a night free from the attentions of mosquitoes. We tried it last summer and it did not work at all for us.

E. B. U. (COMMODORE), Maryland.

WE are depending upon the friends and admirers of our old correspondent Nessmuk to make this department worthy of his name. No man knew the woods better than Nessmuk or wrote of them with quainter charm. Many of his practical ideas on camping and "going light" have been adopted by the United States Army; his canoe has been preserved in the Smithsonian Institution; and we hope that all good woodsmen will contribute to this department their Hints and Kinks and trail-tested contrivances.—EDITORS.

Duck Food Collecting

FOR many years there has been a movement gradually gaining strength for better laws and better facilities for game preservation. An interesting part of this development is the one devoted to the betterment of feeding grounds. A glance at a map showing wild fowl migration will show that the birds follow each year the same routes and that these routes are largely determined by the presence of food.

A few weeks ago I visited a game preserve and was astounded by the extensive business carried on in duck foods. Seeds and bulbs were being collected by tons for shipment to all parts of the country. The plant maintains a superintendent who has general charge of the collections, a modern office for the handling of correspondence, a laboratory for the preparation of educational exhibits, and an advertising manager. The proprietor spends most of his time on the road giving personal attention to the matter of planting and preparation of soil.

In addition to the business of food collection, several hundred mallards are raised for decoys. These are shipped to

private clubs for use during the hunting season.

As a sportsman I was glad to feel that at last the sentiment is spreading for better game conditions. It means that the pot-hunter will soon be a matter of past history in America. I hope to see more written on this subject and a more active campaign conducted toward bettering conditions for wild fowl.

The variety of foods was of interest to me. I confess I did not realize there were so many important foods for ducks. Among the varieties collected were wapato bulbs, cress, celery, lotus, rice, millet, chupas, and coontail. Different foods were used for deep and shallow waters.

An attendant told me that several states through the departments of conservation had employed the service of experts to give advice and supervise planting of foods. This means that the movement is more than local and will affect the hunting over large areas. It also means that the whole country is awakening to the fact that more than the limiting of a day's kill is necessary to give protection.

With the co-operation of the magazines it is certain that those interested in wild life will soon make it impossible for those inclined to repeat the tragedies of the past.

RAYMOND E. MANCHESTER, Wisconsin.

Make Your Own Duck Decoys

THIS is a message to the brother duck hunters who want some "knittin' work" for the winter evenings and who, incidentally, want to lessen in another way, the high cost of shooting.

It is a simple process for the manufacture of duck decoys for the different varieties of latter season birds, viz., blue-bills, whistlers, red heads, mallards, etc.

In the vicinity of hunting grounds, there are usually to be found condemned and discarded cork lifebelts. (If some old "salt" does hold them for a price, usually a plump Havana with a bright red band or a well turned boost will do the trick.) In each section of the life preservers you will find, after ripping off the canvas, a solid, rectangular block of cork. Place two of the blocks firmly together and drive through them five pine or cedar, wedge-shaped pegs of small diameter. This makes one solid block and constitutes the body of the decoy. With a sharp, long-bladed knife or keyhole saw shape the cork to the desired size—length and width—leaving the bottom flat.



The head may also be made of cork, but being the part that gets the banging about, it is much more satisfactory to make it of wood. Use a piece of two x four soft pine with clear grain. Saw roughly the shape of the head and work down with a sharp knife, being particular to leave the neck long enough. It can be cut down at the last if necessary. The diagrams give the general shape and size of body and head, but dimensions depend upon the size of cork blocks.

About the painting, you will have to exercise your own discretion. Let me say here, by the way, no brother need be discouraged through supposed lack of artistic ability. I have seen some mighty finished articles by fellows who could not, on a wager, paint a fence sign in legible fashion. If you are in doubt as to the markings of the different varieties of ducks, go to the attic and bring down some of the dust covered "boys" or consult some authentic colored plate or con-

the marble bust of Lincoln, as masterpieces of workmanship.

Here's success to your efforts!

GORDON J. PLATT, Vermont.

For Suspicious Travelers

I HAVE had occasion to travel considerably and it has been my misfortune to be obliged to put up at many indifferent country hotels. Some of these were not at all clean and inviting. I make a practise of carrying a small box of powdered alum and if the bed in which I am to sleep does not look inviting or looks a little *suspicious*, I sprinkle the alum powder freely between the sheets and around the pillow. I never have any unpleasant nocturnal visitors. This is not exactly a fishing or hunting hint, as the "birds" in question are not included as game fish or animals or even as bait, but many sportsmen who have had similar unpleasant experiences will be glad to know of this reliable preventive.

M. M. TODD, Boston, Mass.

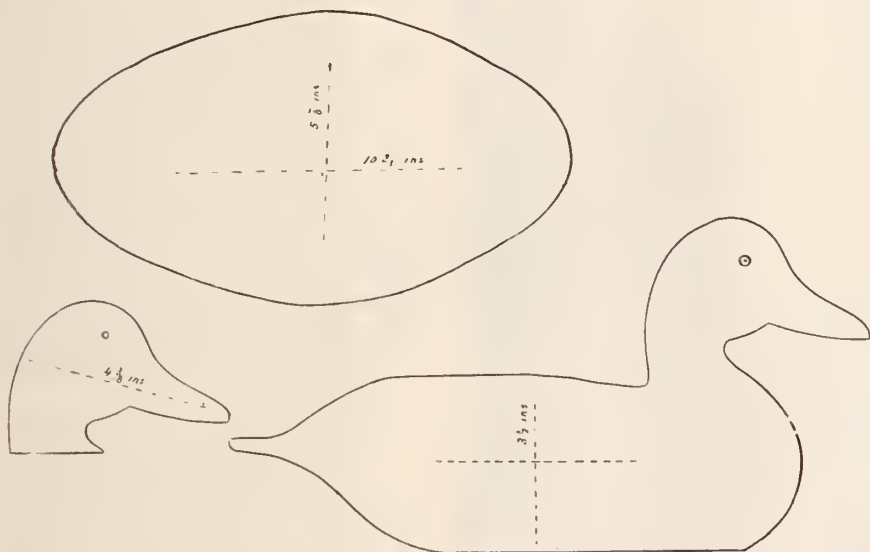
To Keep Cobbler's Wax Soft

DOUBTLESS all of us who make or mend our own tackle have suffered more or less from the mean ways of cobbler's wax—in summer it is like soup, in winter granite. It adheres to your fingers, whilst declining to do so upon the desired object; and in winter, when you want to dress flies, it becomes all but hopeless. Yet I, for one, confess to finding no efficient substitute, and lately have found a way of softening its hardness. The usual plan for this is to keep the article in water, which upsets, making a mess of the table, and of the operator a "dem moist unpleasant body"; or to put it in your breeches pocket, and forget all about it.

Now this may be avoided by keeping it in a box with a tiny bit of camphor, which keeps the surface so soft that a bit of old glove on its face will be found sticky enough to wax thread. I find the best boxes are those small tin boxes in which throat tablets, matches, etc., are sold. The ends are simply turned down, not soldered, so that if desired they can be bent down to allow of waxing stouter cords. I have also tried mixing camphor with my wax, but like the simpler plan better.

I find a pricker made from an old salmon hook (straightened) very useful, especially where a whip-knot has to be made on a broken thread of silk; the barb acts like that of a crochet needle.

M. Q., London, Eng.



Having the head and body, now comes the highly important task of putting them together. With a half-inch bit, bore an inch and a half into the body (where the neck is going to fit on) and the same distance into the neck. (A vise is almost necessary for the latter process.) Now, whittle out a peg of pine three inches long and one-half inch in diameter, with flanges or barbs at one end. Pour a little shellac into each hole and immediately insert the peg, putting the barbed end into the cork. If your work is well done, the head will set firm on the body. NOTE: You can tilt the head by changing the angle of the hole in the body; you can have the duck looking ahead, to the right or to the left, depending on how the peg is inserted.

The duck is now in rough shape. It is enough to use putty around the neck joint and at the seam where the two pieces of cork come together. A friend of mine uses putty to "smooth up" the bird, all over, but this gets you no better results—it, of course, does satisfy your aesthetic sense.

fer with a brother sportsman. I find that a foundation of black serves best for the different kinds. Do not be afraid to outdo the white. Use glossy paints.

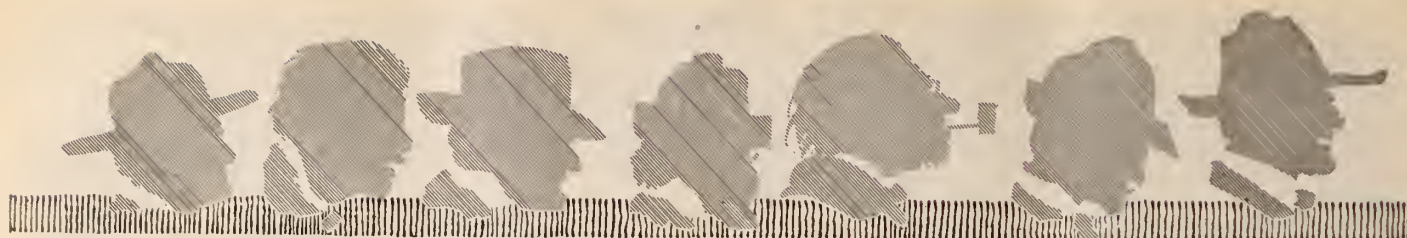
Balance the duck with a piece of flat lead, as usual. The cork will require a third more than wood. Put in the screw eye or staple at the bottom front, use brass-headed tacks for eyes—set fairly low in the head—and you have a duck as much a game-getter as the best, costing you not more than two bits.

And think of the good time you've had puttering around!

But the real big, satisfied, feeling will come in the nip of next season when, entertaining some fellow hunter you slap yourself on your inflated chest and say, "Behold the workmanship of an artist!"

Then hear him exclaim, "You don't say so!" (Meaning what?)

You will be surprised how expert you become after the apprentice lot. You will doubtless produce some specimens which you will display—if your wife will allow it—on the mantle shelf along side of that painting by Michael Angelo or



AL CAN GET THEM

To the Editor of FORSET AND STREAM:

AL is my pal. He is an old man. Al must be sixty-five years old but he still likes to fish and sometimes he catches a few. One Saturday he caught three bass and Hicker and I got not one strike, which proves conclusively that Al is a great fisherman.

It happened that I arrived in my home village Friday night, Nov. 8th, with the thought of going fishing Saturday uppermost in my mind. I found Al and he told me that he had just three minnows in his live box of the variety known in our locality as stone-skips. I believe they are better known as sand perch.

"What you want is stone-skips," Al had told me; so Saturday morning I started out with minnow bucket, light split bamboo rod and line equipped with the tiniest hooks I had in my possession, in search of the wily stone-skip. My efforts were rewarded with any amount of shiners and chubs but not one stone-skip did I succeed in capturing. Then and there I made a mistake; I doubted Al's judgment and decided that chubs and shiners would answer my purpose.

We started fishing at about two o'clock—Al, Hicker and I—in a deep hole formed at the junction of the large and a smaller creek. Al hooked on a stone-skip, Hicker a shiner, and I a chub. Al and Hicker were on a point at the north side of the small creek and the east side of the large creek. I was on the south side of the small creek at its mouth.

Al caught a small bass in a short time and soon after caught another of about a pound and a half weight. Then he wanted one of us to use his last remaining stone-skip, which, of course, we refused to do: he put it on his hook and made another cast and almost immediately had another strike. He missed this one but retained his minnow which was badly lacerated.

"That's a pike," remarked Al. "I didn't let him have it long enough. Watch me get him this time."

The badly crippled stone-skip was taken again. Al let him take out the line until he stopped; he started again and stopped, and on the third run Al made a mighty heave with his old cane pole.

In spite of all the years Al had fished and as many fish as he has caught, he still becomes very much excited when he hooks a big one, and resorts to primitive methods. Such was the case on this occasion. With the pole clutched firmly in his right hand and the butt lodged against his stomach he pulled the line in with his left hand and held it in his mouth until he could reach out to pull in some more. In this manner the fish which proved to be a four-pound, six-ounce small mouth bass, was led in to

LETTERS QUESTIONS, AND ANSWERS

shore and hauled up on the bank where it promptly dropped off the hook and flopped back into the water.

Hicker was wearing hip boots and standing in the water just where the fish flopped in. Of course Al had made frantic efforts to regain it but in vain. Hicker grabbed at the fish as it went into the water and by great luck succeeded in getting one finger under its gills and threw it back to a safe distance on the bank.

As the stone-skips were all gone and we had failed to get any strikes on the other minnows, we decided to go home. The large fish was put on the scales at the general store and as mentioned before weighed four pounds and six ounces.

Al said "We will call it a five-pounder" and if you were to ask him about it now he would tell you that he caught a five-pound small mouth bass.

DONALD C. COLLOM, Pennsylvania.

A PRESERVE OF THE PRONGHORN

To the Editor of FOREST AND STREAM:

YOUR editorial and the communication from Geo. Bird Grinnell (December number) interest me greatly, for the reason that I am one of the survivors of the day in Wyoming Territory when the antelope (1873-6) covered the Laramie plains and the Medicine Bow ranges in herds of thousands, and when the valley of the Yellowstone in Montana was uninhabited by white men but still the habitat of the beautiful antelope.

While "Civilization" has pre-empted nearly all of the old ranges and criss-crossed and bisected them with railroad tracks and brought schools and churches, it seems to have neglected a duty it owes to God and to mankind, for had it been what the name implies it would have made a demonstration that would leave a brighter page in history.

In the early 70's while in camp in Western Nebraska one day I saw slowly threading his way along a grass-grown trail that had been used by generation after generation of his sires, a bull buffalo. He was totally blind, his old hide was full of gore marks and in some places hairless, giving it the appearance of being tanned.

Several of us, afoot, followed him and soon stood within a few feet of him. He knew we were there and stood quietly

with his old nose a few feet from the ground while, with his stubby and well-worn tail he tried to drive a swarm of flies from his scabby back.

"What'll we do with him, fellers," said Bowleg Robinson—"kill him?"

"Not by a damned sight," replied another of our party, "leave that to some lavender-legged skunk from the zone of civilization east of the Missouri River."

So the veteran of many battles was allowed to go his way with his rotten and worthless hide, possibly to be gored to death by Texas cattle that were being driven upon the splendid range.

To me it seems almost a miracle to hear that there are any antelope left, even in Western Oregon. If, as reported, there are several thousand head, it is not too late to protect them, and I suggest a vigorous campaign with both State and Federal authorities, led by FOREST AND STREAM and its large family of lovers of nature and out of doors.

The man who kills a protected animal in Yellowstone park goes to the penitentiary, if caught, consequently the crime is seldom if ever committed. Why shouldn't there be a reserve for the dwindling herds of the beautiful pronghorn? There is plenty of range left for a government preserve, and it can be made as safe for this fine animal as Yellowstone park.

WILLIAM FRANCIS HOOKER, New York.

AN OUNCE OF PREVENTION

To the Editor of FOREST AND STREAM:

TO say that I am an interested reader of your magazine would be putting it rather mildly. I can hardly wait for each issue to come out. I would be willing to pay four times the price if it was published four times a month.

I am one of those unlucky fellows who gets the call of the forests and streams, and gets it hard too, and often; but on account of pressure of business am often denied the privilege of answering the call.

There is a bunch of kindred spirits with whom I have gone to our camp up on the Rangeley Lakes in Maine whenever I could possibly get away, for the past fifteen years. Many of us take FOREST AND STREAM, and I assure you that when we can't be there ourselves, your magazine is an excellent substitute.

I am much taken with the picture on your letter heads and front pages of the FOREST AND STREAM. Many a wild deer hunt, or hour-long tussle I have had with the "big one" on my line, while sitting by my fire of an evening, my eyes staring into that picture, but my heart far away up among the spruce clad hills, following fancy's elusive ways, after the wily ones, until my head droops in slumber and I crawl off to bed without once turning to

the real stories in the magazine.

Gentlemen, I wish to make a suggestion, not thinking to improve your paper, for it could not be improved upon, but because of something I and some of my friends would like.

The many accidents and near-accidents which occur in the Maine woods would often be avoidable if the chances of such things ever happening were presented to the hunter's mind.

If you could give your readers a column or two in which you would print an outline of accidents that occurred or were avoided, how it happened, how it came near happening, etc., it might bring before the reader's mind possibilities that had never occurred to him before, and might save someone the necessity of undergoing the experience, as we did, to teach him how to avoid such occurrences.

Request your readers to write of actual happenings only, and just as it came about, substituting fictitious names of persons and places only, as some of these experiences will still be painfully fresh in the minds of some of the victims. While of course others (those that came out all right) can only bring a smile when referred to.

If by so doing you can save discomfort or a bad scare for someone, or perhaps a life, I think you will be well repaid for the use of a column or so.

If you act upon this suggestion I sincerely hope you will receive many interesting contributions.

CHAS. L. BURNS, Maine.

We believe with Mr. Burns that many accidents would be avoided if people sensed the dangerous causes. These columns are open to any of our readers who have something to tell us along the lines of the above suggestion.—[EDITORS.]

THE PASSING OF "TILLIE"

To the Editor of FOREST AND STREAM:

I AM writing the obituary of "Tillie," who opened her eyes to the world just eleven years ago. She was a native daughter of the State of California, and was born on the magnificent cattle ranch, "Paso Lee Rancho," owned by Mr. and Mrs. Arthur K. Lee. This ranch is located in Sonoma County, a few miles north of Geyserville.

Arthur Lee is a wealthy New Yorker who prefers riding a cattle range to a promenade up Fifth Avenue. Mrs. Lee shares her husband's tastes and is a skilled horsewoman. Their ranch is a hospitable haven of rest for bankers, doctors, judges and lawyers who want a short respite from the rush and whirl of a great city. Their ranch is also the haven of rest for all game. Seldom is a deer hunt allowed on their property.

One June evening, Mr. and Mrs. Lee were taking a stroll after dinner—and who should walk up to them with no sense of fear but "Tillie." She had been cruelly abandoned and was looking for a home. "Tillie" at that time was a fawn just about three weeks old. Arthur Lee carried "Tillie" home under his arm and in no time "Tillie" was having a good supper from a nursing bottle. All that summer "Tillie" lived in the or-

chard—and then in the late fall she heard the call of the wild, and disappeared.

But next spring she was back again to "Paso Lee Rancho" and was a favored guest. For eleven years "Tillie" has been a summer boarder of the Lee ranch and every day about dusk she would come down the hill to be fed. If you would not bother her fawns too much she would let you feed them too. She would bring her two fawns down just at twilight with a proud air. You could pat her neck and back all you wanted to, while you fed her stale bread or potato peelings. But make one move to touch the fawns—and in a flash the trio were gone.

"Tillie" was always adorned with a bright piece of ribbon by Mrs. Lee—so that even doe shooters would respect her motherhood. She was cut up once or twice by barbed wire but nothing serious happened to her until recently. "Tillie" was missing and a searching party instituted. She was found cold in death



"Tillie" and her fawns

not a quarter of a mile from where she first found her foster parents. "Tillie" was given a decent burial and a tombstone has been placed over the grave—and she is at rest on the "Paso Lee Rancho" which meant so much to her in her life.

SIDNEY P. ROBERTSON, California.

NATURE'S REQUIEM

To the Editor of FOREST AND STREAM:

I WENT home the other night, pulled off my shoes, traded them for a pair of slippers, got comfortably settled in a big chair by the open fire, and fell to pondering on the passing of years.

The blare of trumpets acclaimed each coming New Year—toast and song and revelry by night welcomed the new king—but never a word of the Old Year; and here was I—living in the last days of one that was dying, and dying fast.

Out of doors I could hear the wind hustling the falling snow here and there,

covering the unsightly spots, blotting out the scars of earth that the Old Year's glassing eyes might close in peace.

I fell to wondering how the Old Year felt about dying—it had lived its allotted time, did it grieve to go?

At its birth the time of its passing had been decreed; so unlike the various life that quickened its existence, it knew to the hour its final decease.

Was the Old Year leaving a heartache, was there sadness and a longing for a few more days of life, or did the world make merry only over the days to follow? Was it off with the old—on with the untried new?

So on the morrow I would see how the Old Year felt about it; it was to be the last day. And then the question came: Where could I get the nearest to old '18?

Not in the crowded walks of this great city; here there would be no sorrow; the bells too quickly would peel out tidings of the new king's birth. No; I would watch in the shadow of the pines, near to nature's heart, and mourn alone with her at the midnight hour.

So on the following evening just as the shadows crept in and settled on the busy streets, I started for the woods, the pines and solitude. Out through the paved walks of the city, just as the lights began to show, just as the day of toil was ending. How cold it was, how blue the sky with its dancing stars—worlds that had illumined the birthdays of centuries. At last I was out of the city, the woods stood sentinel on either hand, the white carpet was laid, the moon furnished the shadow dancers, as the wind played a weird tune; and moved to the music, the birch and maple balanced to their shadow partners on the snow.

I climbed the fence at the roadside and struck out across the field, resolved to climb the mountain side showing dark against the sky. Just here in this little clump of birches one day last fall, a woodcock met an untimely end; it was such a woodcock as artists put on canvas. How different the spot looks by moonlight. I was standing just where the old dog pointed that day when the leaves were falling. There in front of him the woodcock flushed; I could almost hear again the whistle and the wings—but alas! it is now but a memory of '18.

I climbed the hill and stopped under a giant pine who had stood so well his winter vigil that the snow found no chance to thrust beneath his guard, and the ground was bare. Beneath me, lights of the city twinkled in answer to the stars. The little lake shown like an opal at the foot of the mountain. Not a sound broke the stillness of the night, and save for the sad faced moon, looking down, I knew of no mourner but myself for the Old Year.

Woods and fields where my dogs and I had spent red-letter days lay at my feet. I could see here a spot and there another where the heart had quickened. I could almost fancy the dull boom of the double barrels as the bird went on. I heard the music of the hounds on a far away hill, and I followed my own

footsteps homeward with the red pelt. And '18 was dying; these were but memories. What of 1919? It was a hazard of fortune. Then from field I turned to fireside, and my heart failed me. How could I let the Old Year go? Only I could see the faces that saw the year begin—comrades of forest and stream, companions of camp-fire and trail—gone were they across the Great Divide. What to them or I was the coming of the New Year?

Then through the haze I saw the still white faces, heard the roar of a thousand guns, saw the wreck and ruin of a hundred battlefields; would the bells of the new born year bring perpetual peace? But now as I wondered the shadows fled. The moon hid her fair face behind a cloud. I heard the sharp bark of a fox and the guttural call of a swamp bittern, the pond at my feet flung to my ears a dull boom as the ice settled, and a sudden chill came on the air as the forest sighed, moved by a gentle breeze.

I took out my watch, the hour stood midnight. I knew the Old Year was dead and as if to mock, the jangling bells from the great city, told me the child was born. The Old King was dead—a year of life to the New King.

EDWARD WILBUR, New York.

THE VALUE OF OUTDOOR BOOKS

To the Editor of FOREST AND STREAM:

HUNTING and fishing has been the favorite hobby of mine ever since I was big enough to use a ram-rod, or twine a worm around a hook, and I have read books and magazines ever since I learned to read; but it's just within the last two years that I awoke to the fact that I was missing, what would be to me, the most interesting things I could read—books and magazines devoted exclusively to entertaining and educating us in the very sport that so many of us love so well.

I am one of that large class of hunters who, by force of circumstances, or other reasons, hunt year after year over almost the same ground, and give very little thought or study to game outside of our limited territory; except, to live in hope that some day the opportunity may come, and we can get into the big woods and get some real hunting.

In the short time that I have devoted to reading outdoor books and magazines, I have found they are a source of education that enlarge our possibilities of pleasure, and open new fields of enjoyment for us in our old game covers.

Last fall, while out with a friend shooting quail, we had a covey scattered on a low, swampy piece of ground, and we were taking our turn shooting first, when it was a single bird. The dog came to a point beside a small pool of water, and we started toward him, and when we were within about fifteen steps of him a slow-flying bird arose. It was my turn to shoot; I fired, and it fell.

We walked over to it and I picked it up. I didn't know what it was. My companion, who was older than I was, and, like myself, had hunted mostly around home, didn't know what it was either. I carried it around with me

awhile, and then took another look at it and threw it away.

Near a stream, in some woods where I go fishing sometimes, I have at different times flushed a swift, erratic flying bird, but I never knew what it was.

In a book that I got from FOREST AND STREAM's Book Department some time ago, I find both these birds described; the first was a rail, the other a woodcock, and neither is mentioned in the Synopsis of Game Laws, printed on the back of my hunting license—they are almost total strangers in this part of the country. Here I had, through ignorance, thrown away a perfectly good rail, and it would have been worth more than the price of the book to me to have known at the time what it was—not the value of it, but the pleasure of knowing it was a game bird.

There are other ways in which we are benefited; we learn to be more observant of animal life, and that the pleasure of the hunt doesn't always depend on the amount of game we are able to slaughter. I can take my .22 rifle and my rabbit hound and have an evening's sport letting the hound chase one rabbit around. Of course I usually get the rabbit before dark, which makes the evening's sport a complete success.

These are just instances illustrating that by reading "our" magazines we can get better acquainted with the animals and birds that we meet, and that they educate us up to a higher standard of sportsmanship and a greater need for the preservation of our game. If every person that owns a gun received and read each month a sporting magazine or two, he would consciously or unconsciously become a better sportsman, and the game supply would be safe for years to come.

We should like to give credit for the above article, but the last page became separated from the body of the letter and we can only hope that the writer will apprise us of his name and address so that we may thank him in another issue. The letter is very gratifying to us as it bears out a belief of ours. Books of sports are useful and necessary to the sportsman. We all like to look at the world of outdoors through other people's eyes.—[EDITORS.]

WHO OWNED THIS PIGEON?

To the Editor of FOREST AND STREAM:

I AM enclosing leg bands taken from a carrier pigeon that was picked up exhausted on the Hudson River, midway between Ossining and Rockland at 4 P. M. on September 23, 1918. It was still alive, but very weak and did not survive the night.

J. H. CARPENTER, Ossining, N. Y.

The bands enclosed in Mr. Carpenter's letter were one of aluminum marked 18 (enclosed in a diamond-shaped figure), L. M—1470; also a narrow band of brass marked 3189. Some feathers were also enclosed in the letter, showing the bird to have been buff-colored and white. We should be very glad if the owner of this bird will write to FOREST AND STREAM, and we will return the leg bands to him. No messages were found on the bird. [EDITORS.]

WHAT IS A GAME FISH

To the Editor of FOREST AND STREAM:

TO settle an argument, will you kindly give us an opinion on the following question:

A contends that a game fish is one that puts up a game fight. B contends in the eyes of the Fish and Game Laws, any fish that is protected by law and an open and closed season thereon, is a game fish, that the fighting propensities of the fish have nothing to do with it.

This question has been discussed considerably in the Elks' Club here and we are referring it to you for settlement.

W. W. MENCHEL, New Hampshire.

Realizing that our Benevolent Brethren merit the best and most authoritative opinions that can be obtained, we submitted this question to several angling experts who are well known to the readers of FOREST AND STREAM. Their answers, which are varied and interesting, are given below. [EDITORS.]

DEFINITION OF A GAME-FISH

To the Editor of FOREST AND STREAM:

IN the Game and Fish Protective Laws of the various states a game-fish is considered one that is usually caught with hook and line, and one that takes a natural or an artificial bait.

From the angler's viewpoint a game-fish has quite a different meaning, which I have elsewhere expressed as follows: "In co-ordinating the essential attributes of game-fishes, each inherent trait and quality must be duly and impartially considered. Their habits and habitat; their aptitude to rise to the artificial fly; their manner of resistance and struggle for freedom when hooked; their finesse and intelligence and their excellence as food must all be taken into account and duly weighed."

DR. JAMES A. HENSHALL,
Cincinnati, Ohio.

GAME FISH AND OTHERS

To the Editor of FOREST AND STREAM:

THE term game as applied to objects of pursuit has of late years been made to embrace a number of animals and fish far in excess of the original ones.

Strictly speaking game fish are fish of the salmon family only, all others come under the head of "Pike and other coarse fish."

The terms used in venerie are very ancient and were used long before the discovery of the American continent with its numerous forms of game, totally unknown to those who originally specified just exactly what game consisted of.

It is impossible to draw the line between game fish and other kinds of fish without offending the susceptibilities of some. A man who had fished for and caught numbers of black bass would be highly indignant if you told him he had only caught "coarse fish" and not game fish, whereas the same man might possibly regard catfish as anything but game fish.

The origin of the term game lies somewhere in the time of the feudal system. Certain animals of the chase were reserved for the pleasure of the

princes and nobles. It was a capital crime for a peasant to kill a deer. As time went on the right to kill game ceased to be an exclusive privilege of the nobility, anyone who owned the land, or the hunting rights thereon, could obtain the power to kill game by paying for a license.

Fish—i. e., the salmon family, were protected in a similar manner, and consequently they were regarded as game fish as distinguished from the non-game fish—i. e., those for whose capture no license was needed.

A more liberal method of classifying game fish would be to include all fish whose capture is regarded as a means of sport and not as a source of profit.

R. L. M., California.

THE MEANING OF GAME

To the Editor of FOREST AND STREAM:

ANY number of words have diverse, and sometimes diverse meanings. The dictionary informs us that there are two distinct meanings of the word spelled "game"; in fact there are two different words, adjective and noun, with related meanings. Game (adjective) means a "resolute unyielding spirit"; and it also means (noun) "any kind of sport" or endeavor pursued primarily for pleasure. Such endeavors are naturally pursued in a resolute manner in the desire to win any contest, and the more resolute are the opposed contestants the closer and more satisfactory is the contest, or game. Further, as applied to fish, animals or fowl, any such protected by the game-laws are technically "game"—if not such as are characterized by a fighting spirit, they are such as the law recognizes as liable to be pursued for sport's sake. In most cases, the prime reason for any living thing's pursuit for sport is its fighting spirit. A "game fish" is any whose considerable pursuit for sport's sake is generally recognized; it may or may not be unusually "game" or spirited in resisting capture.

GEORGE PARKER HOLDEN, M.D., N. Y.

WHAT CONSTITUTES A GAME FISH

To the Editor of FOREST AND STREAM:

ASIDE from the technicality of this ancient and rather ambiguous question there is but little room for argument.

If we are to accept literally the argument of B that the protection of law can or does change the nature of a species, then we must of necessity grant, that the taking of a bull pout or brook sucker if protected constitutes as thrilling a victory as the landing of *Fontinalis* or the lordly salmon. If legislation convinces B that this is true then he perforce must be content with the humbler species of fish and argue himself into the belief that the majesty of the law has changed the leopard's spots.

Then, hypothetically—if we admit his contention at all—should for any reason the fish and game laws cease to be operative, by the force of his logic there would be no such thing as a "game fish" in the angler's category and those of us

who have really hugged to our very bosoms the belief that there was a distinction and a difference must disavow our allegiance and bow down to all the humbler species as being the equal of all the higher orders.

B may technically hide behind the contention that this applies only to "fresh water" varieties—I know nothing of his accomplishments or experiences as an angler. If on the other hand no fish can be a "game fish" save those around which the protection of the state is thrown then the battling bluefish is dethroned and the striped bass and channel bass go into the discard, as no law has yet affected them save in the case of the striped bass in inland waters. And what a trial B would have, to be sure, convincing thousands of old timers after an hour's intense fight with the bronze back channel bass that it wasn't "game" which made the contest, "T was thinking made it so."

In controversion of B's argument from the angler's standpoint I submit that un-

"Official notice of amendment to "Rule B" of the By-Laws of the American Canoe Association—

That Rule "B" be amended by striking out the words—"1½ cent" in the third line and substituting therefore the words—"2½ cents," the Rule then reading as amended:

"A member who at any one camp has paid the full value of a site containing a floor may re-rent and occupy the same by paying 2½ cents per square foot for all floor space covered by tent, fly or awning, with a minimum charge of One Dollar (\$1)."

GUY L. BAKER, Buffalo, N. Y.

AN ADOPTED SQUIRREL

To the Editor of FOREST AND STREAM:

AM sending enclosed a snapshot of a squirrel, two weeks old, and from its fourth day until the present it was raised on the doll's milk bottle in the picture.

HAROLD CARTER, New Jersey.



The squirrel took to the bottle at the age of four days

told years of legislation would never cause the brook sucker or like variety to attain the eminence of the black bass nor cause that marvel of scale and fin to sink to the level of the other.

The angler then must of necessity sustain the contention of A, that any fish, no matter what the variety, which puts up a "game" fight is a "game" fish, matching its cunning and strength to the point of exhaustion against the angler's ability; and it is this test and this alone which determines its character. We cannot learn it from picking its bones; neither will Solons ever legislate "game" qualities into or out of a fish.

LEONARD HULIT, New Jersey.

A. C. A. BY-LAWS AMENDMENT

To the Editor of FOREST AND STREAM:

I AM sending you the following notice of an amendment to the By-laws of the American Canoe Association, which the rules require to be published two weeks prior to its consideration by the Executive Committee.

Will you kindly publish the same in the next issue of FOREST AND STREAM—

UNFAMILIAR HUNTING GROUNDS

To the Editor of FOREST AND STREAM:

I AM a reader of FOREST AND STREAM and I thought a few lines as a hunter of Canadian grounds would be of interest to some of your readers, I spent several years in the Parry sound district and devoted all my spare time to outdoor life. I was located on the French and Pickerel rivers and I must say that a better hunting ground there never was. For the hunter of big game it is an ideal spot. There are deer by the thousand, both of the red deer and the spike horn, moose, bear, wolves, fox, and many other wild animals. I have shot some beautiful specimens of deer in these regions, with as many as nineteen points to their horns. I made a study of the deer during my stay there and I learned many things in connection with their habits, haunts, feed, etc. Few American hunters visit this district, but the tourists are beginning to love our Northland for the fine fishing they get there.

W. C. WHITTINGTON,
Canadian Military Police Corps, Ont.
(SEVERAL LETTERS ARE HELD OVER)

Decoy!

I always leave a tube of Mennen's sticking out of my bag in a Pullman dressing room.

"Use Mennen's Shaving Cream, eh?" some man always asks, "Is it any good?"

"Try it!" I say. "Builds up a lather in three minutes with the brush only—don't rub it in with your fingers—cold water is as good as hot."

About the only time I ever saw a man on a Pullman smile before breakfast was just after he had shaved with Mennen's for the first time.

Jim Henry

(Mennen Salesman)



RIFLES AND RIFLEMEN

THE TYRO'S PRIMER

CERTAIN TERMS, PHRASES AND IDIOMATIC EXPRESSIONS USED BY MILITARY RIFLEMEN ARE DEFINED AND EXPLAINED

By CAPTAIN ROY S. TINNEY, Associate Editor of FOREST AND STREAM

(CONTINUED FROM LAST MONTH)

A Bolshevik.—To get the flag, to be flagged out, to signal a shot via insulting wig-wag. When the marksman misses the entire target the miss is signaled by waving a red danger flag, usually called the "powder flag," across the face of the target from side to side. Sometimes this signal is executed with the red disk.

Creepin'-in.—To creep into the bull's-eye by a succession of conservative sight adjustments. An old timer will first get a "2," then a "3" followed by a "4" and finally a bull. This is the best way to *sight in* as the first *off shot* may be due to an error in holding.

Ricochet.—A bullet which rebounds after striking the ground, or any other obstacle or surface, and continues its flight. Ricochet shots that strike the target count exactly the same as direct hits. If any amateur range officer tries to tell you otherwise, just assure him his education has been neglected and refuse to accept such a ruling.

Sighting Shots.—Abbreviated "S. S."—The trial shots which precede the scores fired in a competition, qualification or test course to enable the rifleman to determine the proper sight adjustment and point of aim.

Bobbing or Disappearing Target.—A target which is temporarily exposed to view for a stipulated number of seconds, the time of appearance and disappearance being regulated in the pit. Such targets are used for Rapid Fire, Skirmish Runs, Surprise Fire and Combat Practice.

Key Hole.—A hole in the target made by the bullet passing through it side-wise. Such a performance is conclusive evidence that something is radically wrong with either your gun or ammunition; it is usually caused by a defective cartridge.

Tipper.—A bullet that shows a tendency to "key hole" but does not strike flat, nor does it make a perfect print. Bullets that strike that way are never accurate, so locate the difficulty as soon as possible.

Score.—A group of five, ten or twenty consecutive shots, exclusive of sighting shots, fired in individual practice, competition or a qualification course. The term *score* is also used to express the total number of points made in any series of shots, as the result of a skirmish run. The term *string* is frequently used as a synonym for *score*.

Score Cards.—Blank forms, usually on cardboard, issued to the rifleman for the

purpose of keeping a record of their hits. Bugs keep their scores in a book specially gotten up for that purpose and embellish each score with miniature target and no end of technical information, called "dope," relative to the arm, etc.

Blow Up.—To lose your tailboard, to become nervous toward the end of a good string and ruin the score in the last few shots, a species of "buck fever"—*i. e.*, a touch of nerves that frequently attacks the best of us during a competition or when after game, the rifleman's equivalent for "stage fright."

Butt.—The hill or embankment used to stop the bullets after they have passed through the targets. The plural *Butts* is used to designate collectively the shooter, and a shot directly over the bull's-eye is termed a "4" ("3" or "2" as the case may be) at 12 o'clock. A parapet erected to protect the markers, the pit where the markers work, the targets, the frames upon which they work, known as the *Carriers*, and the *Butt*, or backstop, used to catch the bullets.

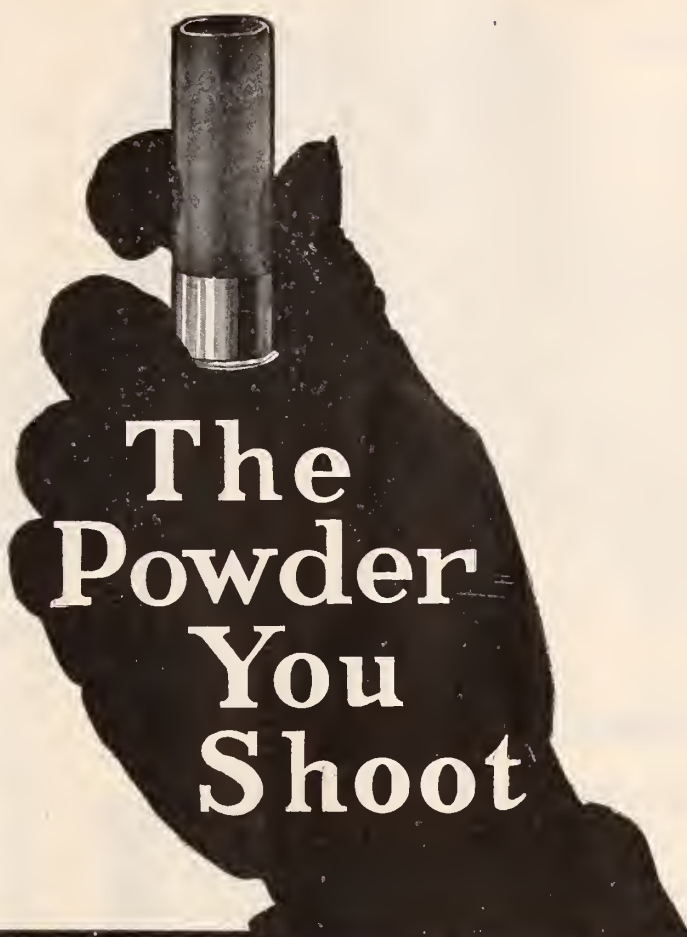
Gallery.—A room or enclosure where the firing is done over short ranges upon reduced targets, usually with small-bore rifles such as the .22.

Clock.—A term employed to indicate, by means of the divisions on the dial of a clock, the location of a hit on the target or the direction from which the wind is blowing. For example: In calling out the position of a hit, the dial or face of the clock is visualized to occupy the front of the target facing the shooter, and a shot directly over the bull's-eye is termed a "4" ("3" or "2" as the case may be) at 12 o'clock. A low shot is at 6 o'clock, a shot to the right at 3, or to the left at 9 o'clock, and so on around the dial, thus giving the rifleman a convenient and simple means of designating the exact direction of the error made.

When speaking of the direction of the wind, the dial of the imaginary clock is supposed to be lying flat on the ground with the target placed at 12 o'clock and marksman firing at it from 6 o'clock. A 12 o'clock wind is one that blows from the target toward the rifleman, a wind from the right is a 3 o'clock wind, etc.

One of the first things the Tyro must do is make himself absolutely familiar with this system of "calling" the hits and the wind as it is universally used on all ranges and everyone is presumed to know it.

(TO BE CONTINUED NEXT MONTH)



The Powder You Shoot



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WHEN you go to the traps or into the game covers for a day's sport you use the shell which experience has taught you is best adapted to your needs. To get the best results you stick to your favorite shell just as you do to your favorite gun.

You should be just as careful about the powder that this shell contains. That the powder plays an important part in your shooting is obvious. In this connection you can't do better than select and stick to

HERCULES *Smokeless Shotgun* **POWDERS** "E.C." *INFALLIBLE*

The next time that you buy shells, look on the top wad for the name Infallible or E. C. as well as on the base for the name of the shell. You should have no difficulty in getting shells loaded with either one of these powders for they are found in any one of the four-

teen standard shells listed here.

Hercules Smokeless Shotgun Powders can be relied upon to give you the same service at all times. Their qualities are not affected by time or weather conditions and they will always give high velocity, light recoil and even patterns.



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St. Vincent Island, Fla.,

in the Gulf of Mexico, containing over 13,000 acres of pine forest, fresh water lakes, grassy savannahs, wild boar, native Virginia and Osceola deer, also imported Indian deer, wild cattle, turkey, millions of ducks and all varieties of fish. The Island with bungalows, hunting lodges, yachts, boats and vehicles for sale to close an estate. Easily protected. Many thousands acres of finest pine trees. Booklet sent on request. For information inquire R. W. Pierce, 663 Main Street, Buffalo, New York.

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IN the good old days before the War, when men shot game instead of enemies, American sportsmen swore by the B.S.A. rifle.

The unique B.S.A. "Lever cocked" air rifle and the B.S.A. .22 calibre target and sporting rifles, famed for their intense accuracy, were particularly favored by American rifle connoisseurs.

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The War enhanced the already splendid reputation of the B.S.A. for reliability, accuracy and power (when power was wanted). Millions of B.S.A. rifles were made for Allied land, sea and air forces.

It was the amazing B.S.A. experimental work and machining skill which made the Lewis machine gun the wonderful weapon it turned out to be.

The B.S.A. of today is the result of all the years endeavor that have gone before, and first fruits of gruelling tests of the great War. See our announcement next month.

Write for further information and rifle booklets sent free upon request.

THE BIRMINGHAM SMALL ARMS COMPANY, LIMITED
Dept. 20, Birmingham, England



THE KILLING OF THE OUANANICHE

(CONTINUED FROM PAGE 71)

cried Rhoda, throwing her arms around her friend in the impetuosity of her congratulations. "How you have kept us on the anxious seat, and how we enjoy your triumph! What an avocation to make one forget herself!"

"And I too most heartily congratulate you, my clever pupil. You do me proud. You have so adroitly outwitted the prince of finny diplomats. And I know you are committed to the spiritual interpretation of the sport. For who but a lover of the angle can conceive of the choking thrill which accompanies the rush of a ouananiche—who else, that erethism, short-lived, unearthly, that electrifies every nerve in your frame as you twist the steel into his jaw and feel him fast—that concentration of delight in the struggle that follows, wherein the noblest fish that God has made matches his brute intellect, perhaps his manifold experience, against your reason and art, wherein your wand-like split bamboo gracefully responds to his desperate leaps for life, and arches in perfection to his wild circles. Who but an angler knows of the sweet calm that follows victory, as you tenderly place your dying captive on the skiff bottom, and wearied by the excitement sit down to watch his brilliance fade, with the feeling that if your life were forthwith to end, you have not altogether lived in vain."

THE LEOPARD OF THE LAKE

(CONTINUED FROM PAGE 70)

The pickerel has always been an object of eager pursuit to the angler and many methods are followed in taking them. "Skittering" with a bamboo pole and just enough line to handle nicely is one plan, either walking along the bank or casting from a boat, keeping it just far enough from the bank or lily-pads to make action easy and using a piece of pork rind or other lure to attract the fish. This is at all times laborious work and does not partake of the finesse of still fishing, which is much more in vogue at the present time. The requirements are a good bait casting rod such as is used in black bass fishing, a small but free running multiplying reel and a rather fine line, a 4-0 Carlisle hook of the best quality. The hook should have the gut snell wrapped with the finest of wire to prevent the ravages of the teeth, as they are needle like and most formidable, and just enough lead should be used to carry down the bait, which should be a good sized live minnow. A small barrel-shape cork float is in order, as it offers less resistance to the water when the strike is made than is the case with the ordinary egg-shape float. In this manner of fishing the pickerel rarely takes the bait with a rush; more generally toying with it as if in play and it is necessary to allow the fish full play with its whim, as to strike at once would be to permit the complete escape of the fish. Even when the float has entirely

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For all lubrication and polishing around the house, in the tool shed or afield with gun or rod.



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is a matchless combination. Sportsmen have known it for years. Dealers sell NYOIL at 15c and 35c. Send us the name of a live one who doesn't sell NYOIL with other necessities for sportsmen and we will send you a dandy, handy new can (screw top and screw tip) containing 3 1/2 ounces postpaid for 35 cents.

W.M.F. NYE, New Bedford, Mass.



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FOR more than a year you've bought your guns collectively, as members of the nation.

And you asked us for Lewis Machine Guns—nothing but Lewis Machine Guns—all we could make. And you got them and used them—in uniform—under the stars and stripes.

And you've won the war. So now we can go back to making your hunting rifles and pistols again for you as individuals—for your private, personal needs in civil life

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And the .32 Savage automatic pistol and the .22 Savage Hi-power and .250-3000 Savage rifles will be ready by April.

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That puncture can be in a rubber or leather boot or shoe, a canvas boat, a hot water bag, or any article of rubber—and in less than a minute you can have it fixed up snug and tight, absolutely water-proof with

MARBLE'S EZY-QUICK REPAIRERS

No cement used. Cannot come off. Cannot hurt the foot. The two plates are concave. Lower plate has a threaded pivot, which projects thru hole in upper plate and the two are held tightly together by a flush nut. Metal key, furnished with each Repairer, is used to tighten up the plates. 3 sizes: 3/4 inch diameter, 10c; 1 inch, 15c; 1 x 1 1/4 inch, 20c.


Catalog of Marble's Specialties for Sportsmen free upon request.

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disappeared it is well to allow a few moments to elapse before making the strike, as the pickerel invariably turns the bait around so it can be gorged head foremost. When the strike is made it should be firm but not rapid; the rod should be brought up and when resistance is felt, then drive the hook home. With tackle such as described the sport is of high order as the pickerel puts up strong resistance and makes runs to right and left in rapid order, springing from the water frequently and withal making a very interesting fight. Ordinarily the best time for a trial at these fish is early in the morning or between sunset and dark, as it is during these periods that they take the hook freest.

SURF ANGLING

ALL of the old officers were re-elected at the annual meeting of the Association of Surf Angling Clubs, held recently in New York City. Representatives of all of the clubs along the coast from Long Island to Florida were present. The officers for the coming year are Dr. F. C. Raynor, Anglers Club of New York, president; J. Egbert Newman, Belmar Fishing Club, vice-president; Claude E. Holgate, Ocean City Fishing Club, secretary-treasurer. Board of Governors, J. S. Pettit, Anglers Club of New York; John D. Ritchie, Asbury Park F. C.; W. A. Welsh, Anglers Club of Ocean City; W. A. Robinson, Belmar F. C.; Howard Kain, Long Island C. C.; Dr. Carleton Simon, Midland Beach F. C.; Churchill Hungerford, Ocean City F. C., and Dr. S. H. Lipschutz, St. Petersburg Tarpon Club.

Several changes were made in the rules covering surf casting tournaments. The definition of what constitutes professionalism was more clearly outlined than the rule previously existing, as follows:

"A professional is one who is a teacher of casting for pay; or one who acts, or has acted within a period of one year prior to the tournament, as a paid guide; or one who makes use of his own or a fellow caster's ability for advertising."

Rules outling the method of preferring charges, and for the reinstatement of those who had previously been professionals were left to a committee consisting of Churchill Hungerford, R. H. Corson and C. E. Holgate to draft.

Casting dates for 1919 were allotted as follows:

- May 25, Long Island C. C. at Grant City, S. Is.
- June 15, Midland Beach F. C. at Grant City, S. Is.
- August 2, Asbury Park F. C. at North Asbury.
- August 9, Ocean City Cup Contest and club events at Ocean City.
- August 16, Belmar F. C. at Belmar.
- Dates for tournaments of the Anglers Club of Ocean City and the St. Petersburg Tarpon Club are to be left to these clubs to select. The tournament of the Florida organization will probably be some time in March, during the height of the tarpon season, when anglers are there from all parts of the country.

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THE RETURN FROM THE HUNT

(CONTINUED FROM PAGE 57)

ing, white crested waste of water—that we decided to make camp and wait until it blew itself out. About nine o'clock we heard the sound of a motor coming down the lake, the steady throbbing of a powerful engine. It proved to be a fellow named Bunce who lived at Roosevelt on the Government Railroad and ran a freight boat on the lake. We welcomed him with open arms and engaged him to tow us the rest of the way to the railroad in the morning. The next day broke in fitful manner with the gale still blowing and the seas running madly—white capped and furious. Ben went out with Bunce to reconnoiter and came back in an hour and said we could make it all right, so Bunce towed us out into the very teeth of the storm. When we got within a mile or two of our destination, it began to rain, driving into our faces with a sting and a roar. Bunce stood at the wheel and took it like a man as the boat rocked and tossed beneath him. Our boat was jerked along behind through the blinding maelstrom and finally landed us safely around the point of land by the Cabin. We soon had a fire going in the stove about which we gathered in grateful anticipation of a cozy afternoon indoors. The rain thundered in solemn monotone on the roof and we looked out of the low windows across the mist shrouded lake with feelings of entire satisfaction. "Let her rain," said Ben, as he lay back in a bunk with an old magazine and settled down for a quiet smoke.

(TO BE CONTINUED NEXT MONTH)

THE PRONGHORN

(CONTINUED FROM PAGE 75)

that he had also seen the animals eating leaves of the ironwood (*Olneya tesota*).

During feeding hours the adult pronghorns lie down to rest a dozen times a day, always starkly in the open, ten or twenty yards from cover, doubtless from fear of the pumas (*Felis im-procera*) which sometimes prowl down from the hills. At noon of the hottest days we found the antelope's fresh beds in the most unshaded situations. Captain Funcke said that through the night, too, they slumber only in exposed places, and by daybreak they begin to browse. Usually we were able to distinguish fresh tracks from those several hours old by the moistness of the droppings, which would be found at rather frequent intervals in depressions that the antelopes had scratched in the soil.

Although pronghorns are known to be able to drink bitter alkaline water, and are said to repair periodically to regular watering places, there can be little doubt that those of northern Lower California do not drink at all during the greater part of the year. Like the desert kangaroo rats, and many other animals, they have "xerophilous" specializations, and obtain all their necessary moisture from vegetation.

R. C. M.

HUNTING MERRIAM WILD TURKEY

(CONTINUED FROM PAGE 61)

flock and followed them for another hour over much rough country until they became so fresh that I expected any moment to come in sight of the bunch.

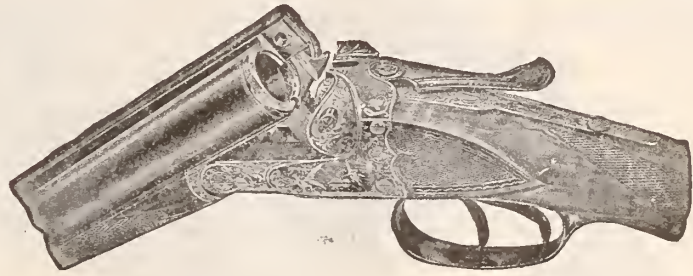
THE sun was getting low and I left my cover and proceeded up the base of the canon in the direction of the ridge with the ultimate view of returning to camp. After five minutes of walking my attention was directed to a swish of wind overhead and I looked up to see two turkeys sailing across the canon. Just before they got to the pinons I sent both barrels after them, which brought one bird down and I saw it sneak away up through the pinons. I followed as best I could over the rough rocky slope of the canon, and after some time gained the ridge at a point where I expected it had crossed. Suddenly a sharp call of alarm from the oak brush near me, put me to attention, and vainly did I try to locate that bird. Then I advanced a few paces and the sound of my footsteps brought him out in the open, about 30 yards from me. I could just make it out in the fading light, then killed it with a charge of No. 2 shot.

We swapped three varieties of lingo for some time that night and I enjoyed the story of Turkeyfoot's meeting with the turkeys, as translated by Jess. He had killed two fine specimens, a young gobbler and an old hen. The collection now numbered eight, and as they hung there under the big pine, viewed through the smoke and light of the fire—beneath, a carpet of snow and a background of forest black of a winter's night; above, white streaks of clouds set in a starry sky—and blending so well with it all, my two weatherbeaten companions, contentedly absorbing the warmth of the fire, the Indian's long hair in strings down either side of his bronze hued face, it was a scene that I sometimes enjoy bringing to view, especially when the environment of the city gets too oppressive.

WE awoke next morning to find that a little skiff of snow had fallen, and after a later breakfast than usual prepared for my last hunt and effort to get an old gobbler which, up until this time, we had not secured. The new snow covering the old tracks made the outlook promising and I made in a direct line from camp with the intention of cutting across the turkey country and following the first tracks I might strike. I left camp to the west and the lower country while Turkeyfoot rode away on his buckskin pony to the north where he had hunted the day before. I had gone some distance, crossing the tracks of several animals, bob cats, coyotes, weasels and porcupines—even the tuft-eared gray squirrels had been making their little marks in the snow, for the morning was perfect and much of the smaller variety of wild life was in evidence. Then, unexpectedly, appeared the tracks that I had come to know so well and which always put me on the alert. Well defined in the fresh snow were those of a single

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bird. Soon another turkey joined it and a little farther on still another, until they had increased by three and four at a time until I was following the tracks of about fifteen turkeys, and now I had commenced to find where they had scratched away the snow.

I continued very cautiously to follow the winding trail in the snow made by the big birds and kept well under the protection of the pinons. I had just followed over a little rise and down into a ravine skirting the edge of the pinons when about sixty yards ahead in the timber, an old hen evidently on guard stretched up her neck and evinced every sign of being aware that something materially unnatural was coming her way. I didn't want that hen, at least at that moment, and "froze" to avoid her notice. To the left of her, about 10 yards, the flock was feeding, though I could not see them on account of being lower down in the ravine. The old hen was now getting uneasy, and I was fearful that she would spoil my chances then and there for getting her lord and master. "Put-put" went her warning note of danger, which took immediate effect on the flock. A commotion was taking place among the startled birds. I scurried through the timber toward them unseen, paying no notice to the old hen which was now dodging at full speed through the pinons.

Gobblers seemed very scarce and I had no time to make certain the identity of the sexes, as they swiftly disappeared through the pinons (in fact, the whole scene was enacted in such haste that the story without the details would amount to a matter of seconds, from the moment when the old hen gave out her warning notes). My first shot killed a hen, the second brought down two of them as they came together; then slipping in another shell (which I had in hand for just such an occasion) I broke the legs of "the old gobbler" just as he was disappearing around a patch of oak brush, having passed me with the rest of the flock.

THIS terminated the actual hunting of the turkey hunt. I returned to camp with four more beautiful specimens, not the easiest pack to carry to be sure, but the load was wild turkeys and not duffe, so I didn't think much about it being a task. Turkeyfoot had returned without having seen any fresh signs and as the day was still in its infancy, we hurriedly packed up our fine material for the proposed group—which consisted not alone of turkeys but in addition several large bundles of decorative plant life, shrubs, trees and other accessories which all helped to eventually make a lasting reproduction of a group of wild turkeys in their natural haunts.

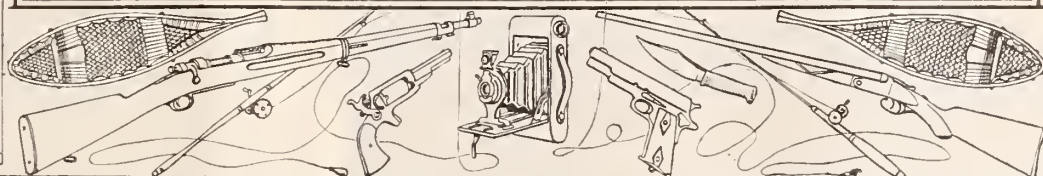
Our return to the railroad was accompanied by snow storms and blizzards and the little party had taken on a decidedly weather-worn appearance when we reached it. "Turkeyfoot" had ridden his pony through it all. His black hair about his face streaked with clinkers of ice, was a contrasting picture to his otherwise ghostly appearance with blanket covered with snow. We left him thawing out by the big stove at the agency at Dulce, where the turkeys and other material were shipped.

Uncle Sam Fish Contest

Owing to the delay in receiving the decision of all the judges in the Fish for Uncle Sam Prize Contest conducted by FOREST AND STREAM during 1918, final announcement of awards must be delayed until our next issue.

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THE GULF RANGERS

(CONTINUED FROM PAGE 65)

At six the *Mae* and her tow were bound down Lossman's, under fair skies. John dropped over a line, trolling as they went. But progress was impeded by the tide and by engine trouble. Do you recall we said, early in our narrative, that the *Mae* developed several kinds of pip? She sparked about as regularly as a man with asthma. Parts of the water jacket had rusted and there were leaks galore. Cold water was being pumped into her cylinders in a way that threatened to baffle even Mr. King, who knew the old craft by heart. No wonder she balked!

We find the *Mae*, her engines complaining, en route to Chockoloskee and Marco, on the morning of the 21st. Never were there more dangerous reefs. Even Hendry's steel nerves and quiet self-possession were necessary every mile of the long way. Oyster bars by the legion were dodged. Between Clam Point and Snake Key the voyagers resolved to get revenge on those bars. They put in at one of the clean-shaven islands and swooped down upon a bed, eating luscious bivalves in their own juice, direct from the shell.

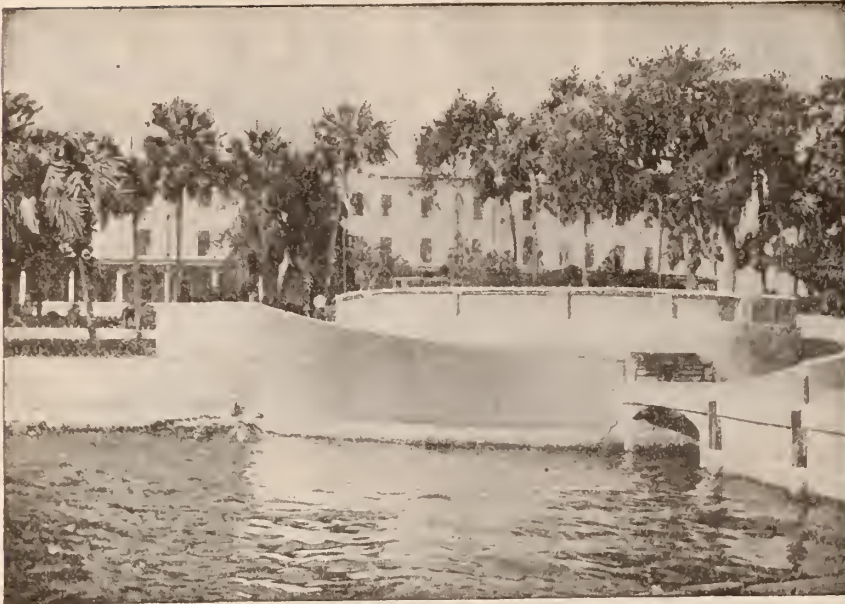
The *Mae*, in traveling this far, has passed Porpoise Point, Alligator Point and Cove, Seminole Point and Turkey Key. When they were opposite Manatee and the mouth of Chatham Bend River, Mr. King would not stop. There were stores to be secured at Marco—and gasoline and engine parts. It is not likely that they realized then the adventures waiting for them up Chevalier Bay. For it was here, really, that our story begins. What has been told is a sort of happy-go-lucky prelude.

It was dark when the *Mae* coughed up to Chockoloskee, searching out the channel. Both Hendry and Mr. King missed it and they anchored outside for the night. A letter of instructions from home was waiting at the Chockoloskee post office. That afternoon Hendry and John did some deep sea fishing and later had the doubtful pleasure of examining some REAL game that had been bagged by a party of seasoned hunters. They had spent a week back in the cleared pine tree ground, well equipped for the expedition, and were going over to Marco on a last lap.

It made Hendry insanely jealous to see the old buck suspended from a pole between two pines. A few feet further on, four others invited attention and as for wild turkey—mere snap shots cannot do them justice. This exceedingly courteous party, having an experienced chef and cooking apparatus to do the job properly, brought over a great pan-full of cooked meat, both deer and turkey and as it was piping hot, it made a supper of true sportsman form.

"They spend much time in Big Cypress," grunted Hendry, "no wonder they get deer and Turkey. Come here and smell out right place."

Another morning brought dense fog to further complicate matters. They had slipped into shelter for the night but getting out was a more difficult problem. Twice the *Mae* grounded and twice they



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backed her off. Was there no outlet to the bar? Had sand washed in during the night? Through momentary rifts in the fog, they could see hundreds of oyster banks. An island that slid into the perspective was covered with mulberry trees, maroon with fruit. The Century plant was observed, and trees that reminded Mr. King of Mexico. It was necessary to "kill time" until the tide raised, and John was for landing on the island with Hendry for a look around. Twenty steps into the brush, John shot a fat and sassy coon.

Although wounded, the shrewd little customer feigned death and when the boy made a grab for it, up came the small head and out sprawled the active feet and for five minutes coon and John thrashed around the underbrush, first one on top and then the other. Hendry, who was always on guard where his young charge was concerned and who seemed to have taken an extravagant liking for John, Jr., came to the rescue.

Soon they were off again, along a wide and deep river, dotted with fishing boats of every description and early in the afternoon. The *Mae* reached safe harbor at Marco. This rather thrifty little community is not unknown to sportsmen, although it is frankly off the beaten path of travel. In point of fact, as Captain Collier of Marco so loved to say:—"We are clean away from civilization." Three times a week came the mail boat from Fort Myers and a colony of phlegmatic fishermen plied their trade.

Captain Collier was the King Pin of the Island of Marco. His influence was far-reaching and his holdings many. He owned the hustling little hotel—he constructed neat houses and leased them—he ran a gem of a general store that was well stocked with the things that sportsmen crave, and everywhere, the groves of grape fruit and Avacado testified to his progressiveness. Marco must depend—or did—upon the rains from heaven for water, and it was Captain Collier who put down a 490 ft. well, to the sparkling sulphur-tanged supply beneath the island.

By ten o'clock, the *Mae*, in much better condition, was sniffing and snorting down the coast to Caximbas Pass, with fair weather and happy skies giving her benediction. How they met up with the mysterious sixty-foot two-masted sharpie—how coincidence took them aboard and how John, Jr., in rummaging around below deck, discovered something that made them all shiver, is reserved for next month.

"Shooting up the rookeries" became a significant phrase from that hour on. And how plausible were the smug gentlemen aboard. You will want to sit in the dimly lighted cabin with these Gulf Rangers, and sample the dish delectable, "Stingray Flipper." You will want to follow the course of that same sixty-footer, and become personally acquainted with the fat gentleman with the red beard who snatched John, Jr., away from an open hatch, just as his eyes were beginning to strike fire. We warned you that our story really began somewhere in the neighborhood of Chatham Bend River.

(TO BE CONTINUED NEXT MONTH)



THE KENNEL MART

GUN DOGS

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FOR SALE—HIGH-CLASS WALKER FOX hounds. Broken right and can deliver the goods in any company. Price, reasonable. Stamp for reply. Arthur Sampey, Springfield, Mo.

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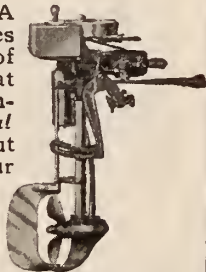
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(CONTINUED FROM PAGE 67)

shot. Crow shooting in the winter when snow is on the ground is good sport.

IN view of the fact that conservation is the purpose of this war against the crow, the trophies offered in this contest do not represent any great monetary value. No incentive at all is really needed to get farmers and sportsmen to kill as many of these destructive pests as possible—and besides it is the spirit of competition rather than the value of the prizes that makes for a successful contest, particularly when results are helping Uncle Sam feed not only this country, but also many of the nations of Europe.

To every contestant in the National Crow Shoot who during 1919 shoots twenty-five (25) crows will be awarded a triangular bronze lapel button.

To the two bronze trophy winners in each state (or province in Canada) who shoot the largest number of crows during 1919 will be awarded respectively the following trophies, each to be engraved with the total number of crows shot by the contestant:

1st State Prize, Gold Trophy Button.

2nd State Prize, Silver Trophy Button.

To the three gold trophy winners who shoot the largest number of crows during 1919 will be awarded respectively the following trophies, each to be appropriately engraved:

1st National Prize, Gold Trophy Cup.

2nd National Prize, Silver Trophy Cup.

3rd National Prize, Bronze Trophy Cup.

CONDITIONS OF THE CONTEST

1. Anyone in the United States or Canada, is eligible to take part in the National Crow Shoot.

2. The National Crow Shoot will be conducted to conform strictly to the Federal State Game Laws and nothing contained in our offer is to be construed as urging anyone to violate any game law. Each individual should inform himself with regard to his local game laws before taking part in this contest.

3. To receive credit in the contest crows must be killed with a shotgun or rifle.

4. Evidence of crows shot is to be furnished by contestants in the form of a signed statement, countersigned by an ammunition dealer, upon forms furnished for the purpose. It is expected that the contestant will furnish the dealer with evidence of his kills in the form of bills or feet of the crows shot. The statement forms will be supplied to dealers and contestants upon request.

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Every American will want Theodore Roosevelt's books. The demand will be exceptionally heavy, and we advise our readers to order such books as they may need from the following list at once.

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Prices mentioned include postage to any part of the United States or Canada.

The demand will be exceptionally heavy, and we advise our readers to order such books as they may need from the following list at once.

"African Game Trails." \$4.00.

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TO PROTECT RUFFED GROUSE

OWING to the great scarcity of ruffed grouse, now seriously threatened with extinction, efforts are being made in a number of States to close the season on this species for a term of years. Upon petition the game commissioners of Michigan and Pennsylvania have closed the season by regulation, and in New York the season was shortened to one month. Protective legislation, if enforced quickly and rigidly enough, will save the grouse.

GONE TO THE DOGS!

SOME PHASES OF THE OPEN QUESTION AS TO THE SUPERIORITY OF CONFORMATION OR TEMPERAMENT

By JAY RIPLEY

“**W**HAT is there to type or conformation?” I often ask myself. Conformation of the right kind is most desirable, but I have never seen it assure bird sense, nose and other requirements that go to make a perfect shooting dog. Sometimes a beautiful dog will appeal despite its shortcomings in the field, but in my eyes all homeliness vanishes when the dog crimps on point. No dog was ever ugly on point! They may assume any pose, but when they have the birds to a certainty, they attain the loftiest standard of beauty.

Families are noted for their ideal conformation, though not one of them wins in the field, and families that have but little in the way of looks make good in competition. All field dogs of great range and steam are built to perform the work. They may be sheep-headed and snippy-faced but they are created or constructed for that.

As much of a part as conformation plays we have another thing to contend with in the selection of dogs, and that is, temperament. I am of the opinion that in the early days of the creature's existence man plays a huge part in developing it. Were it not so, it would be inconceivable how some individuals have such rank-dispositioned dogs. A great dog will assert himself despite a cull master; but it has amused me to see how dogs become as fixed in certain habits, and to a degree absorb them from their owners.

Some dogs like to be cuddled perpetually; and I am positive most sensible dogs like petting when at rest. But try to pet the real classy dog in the field by stopping him when he has already warmed to work, and you instantly observe that he thinks it wrong just then, and like Maupassant's Tallow Ball, it is not a suitable time.

Every field dog is possessed of some peculiarity. With some it is a dislike for loud noise other than that emanating from a gun. There was a dog of my acquaintance that was deathly afraid of a cow, and would circle half a mile away to evade one, but in sight of other animals he was brave. One persisted in bringing me every young pig and young sheep or goat that he could find. He was so gentle that none of them were hurt.

MANY setters and pointers are dominated by family traits. Thus we see many natural retrievers, and their get have this talent. Another it is the faculty of marking birds so accurately that it appears almost uncannily accurate. I knew a big rangy pointer that was a wonder at marking birds. He never broke at shot, but often he advanced over a rise after gun fire to see where the birds flew. Nine times out of ten he was correct in marking them; though I would have been willing to

wager with anyone that the birds had dropped in a different part of the cover.

Not every dog is possessed with the gift of telling when birds that fly off are hit. Nearly every dog that is a retriever will go on, if permitted, after a hard-hit bird that barely manages to scale the weed tops. But one dog I have in mind showed rare discernment in this. On every hunt he has suddenly broken shot and proceed after the birds to the brush, invariably returning with a quail in his mouth. I do not know how frequently I have watched a covey with careful scrutiny when he made the dashes. Sometimes I saw a feather fall, a leg drop, but as numerous, however, were the times when my eyes failed to discover any evidence of the bird being hit; yet this dog broke shot and brought a bird. Otherwise he was not particularly great on quails. He had been worked on chickens in the North and false pointed so badly, it became very annoying.

Dog owners have ready excuses for the dog that false points. One man told me it was inherently a pointer trait, a week elapsed and another confided to me that it was a setter trait. Both were excellent judges of the act, as each claimed it as an exhibition of over-keenness of nose. As for me I have seen but three dogs in twenty years' shooting experience that had never false pointed.

Nothing tantalizes me as badly in quail shooting as a false pointing dog. A good looking dog in my mind can be soon transfigured into a dub by repeatedly performing this act. The one-dog man is for the most part to blame. Even though his young dog is not born with a defective nose, it becomes so by route of his offices. The city lot is a fertile ground for developing false pointing, by stopping the dog on sparrows, pigeons, anything that has wings. My personal belief is no dog should ever be made to stop on anything but a game bird, and then only after the animal has attained age. The precocious youngster that points steadily at four months and afterward, is eventually turned into a slow pottering fellow without the vim and snap essential to a high class performer. If he is not sufficient inborn hellishness to chase a quail at a merry clip for once before he is a year old, he really needs attention.

The dog owner I have in mind was the one-dog man. On visiting him in the city, I was regaled with prodigious tales of his dog's stanchness. Every Sunday he had put him down in the sunburns and had given him runs. Perhaps certain days he found a quail, and at other times none. My, how stanch he was! Was he coming shooting with me? Why certainly! But he confessed that he detested to hurt my feelings; it would, however, be a good idea to chain up my dogs while he was there. Living in the country, though my self hunting rowdys

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were every day on birds, they could not hope to cope with this champion. He had his setter broken to a queen's taste, so he told me; he stopped anywhere at command, and was steady to wing and shot on any game.

THE steady to wing on anything amused me. For it recalled one of my young dogs a few years back—my steady mainstay now—whose early days were exhibitions of speed between himself and quails. And I am yet amazed how some of the birds ever beat him to cover. One consolation was, they seldom got there much in advance.

That Fall it was a handsome, meek-looking, little setter that he brought to the farm. She was nicely put up. But I never saw her make a step without glancing at her master to see if she was doing it properly. From the second she was in the field she pointed.

He took me by the arm, backed off and asked me to observe the style of her point. Then he withdrew a few paces absorbed in contemplation. Despite all this she had not had a bird flushed in front of her.

From eight in the morning until four in the afternoon is a wait of considerable duration on a dog to find a quail in a neighborhood, too, where birds were in abundance, and their roosts were visible in every field and thicket. The visitor's dog failed abominably, not a bird did she find. It would by far have been better had we depended on walking them up. Withal my companion never surrendered his faith, and his admiration was as keen as at the break of dawn. Presently the day was drawing to a close. The dog had begun to range ahead of us fully forty feet. She stopped, flung her head high and stopped in a perfect pointing attitude. She had become a thing of wondrous beauty. Her nostrils quivered with elation.

“Keep still, she has them now,” her master confided in low tones, as though the secret were too great for mortal ears.

“Where?” I asked, and was moved to add through churlishness: “I don't see any use of making it a secret. It is no disgrace for her!”

He was impervious to my sarcasm. In advance of me he trod gingerly. “Come,” he whispered, beckoning with his hand. “She still has them!”

We both kicked in the sedge twenty times, walked around her, shouted. I did not even get my gun ready so interested was I in the find. Nothing could be raised, and the dog refused to budge. Unable to account for this unparalleled feat of stanchness, we sought other causes.

The city hunter fell to his knees, feeling around in the dry grass. Then his eyes glimmered at her achievement. She had found at last! not birds; for he held aloft for my observation a dead mole.

And she would have been still pointing had he not dragged her off.

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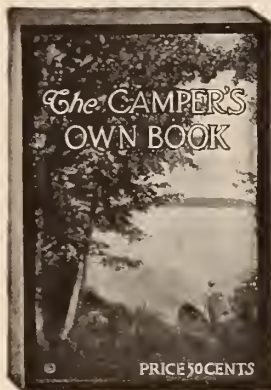
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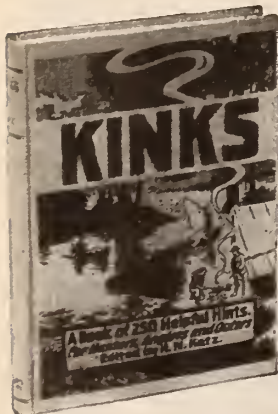
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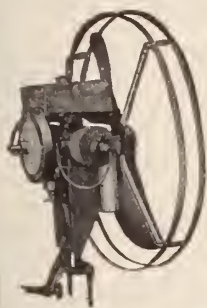
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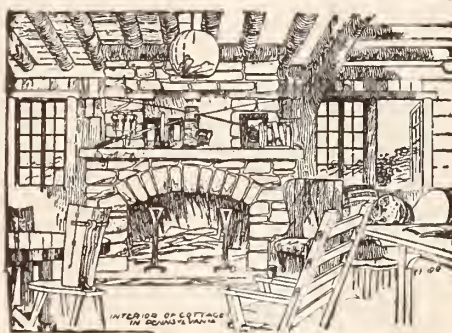
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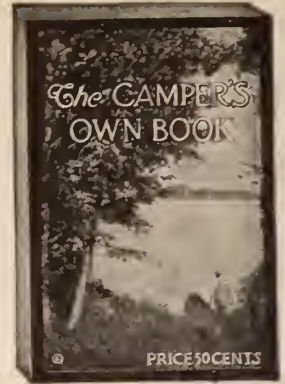
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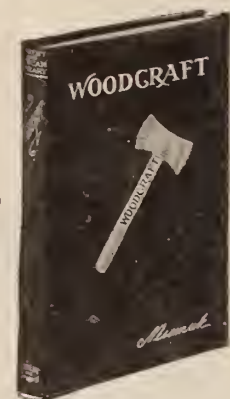
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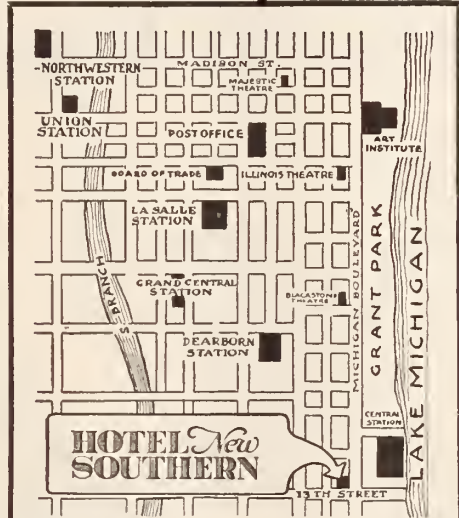
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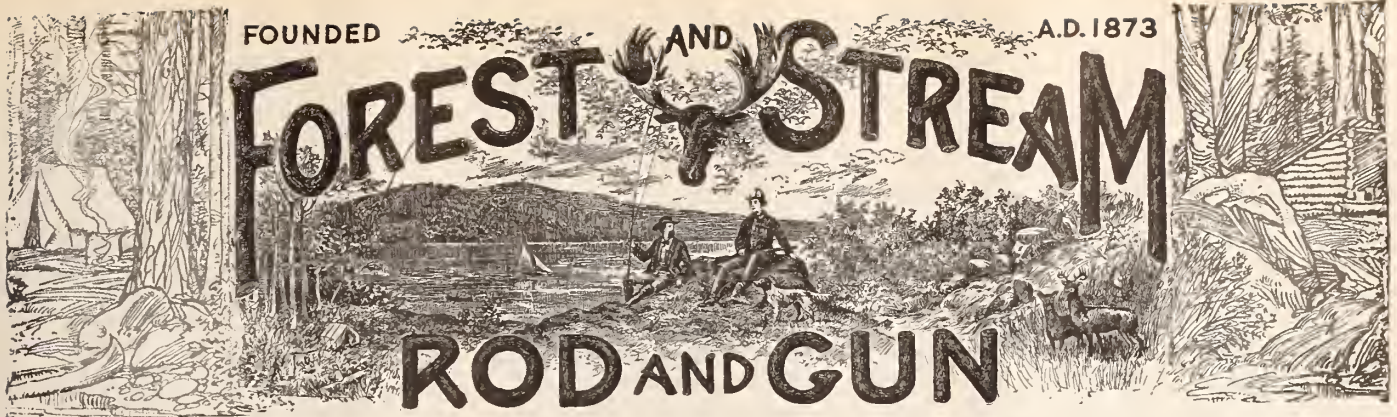
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THE SCOURGE OF THE PRAIRIES

TRAPPING WOLVES, LYNX AND COYOTES IN THE FOOTHILLS OF THE ROCKIES IN THE INTEREST OF FOOD CONSERVATION AND GAME PROTECTION

By "BOB WHITE"

I HAVE known Bert for years. In spite of his rather checkered career as "wolver" for the Cattlemen's Association of Wyoming, hunter, trapper, range rider, forest ranger, and one time "rustler," I have found him to be a very trustworthy companion, both in camp and on the trap line. There is a trace of Indian blood in him, that of the Utes, the tribe that, under the chieftainship of the great Ouray, roamed the plains of Colorado in the long ago. The last remnant of the tribe now lives on its reservation at Ignacio, in the southern part of the state.

As "wolver" for the cattlemen in the Jackson's Hole and Bad Lands Country of Wyoming, Bert has the distinction of being one of the most expert trappers for that great destroyer of live stock—the gray timber wolf. It is said that one of these wolves will destroy a thousand dollars' worth of stock in a single season. No wonder, then, that these cattlemen are willing to pay a man \$60.00 per month, which includes a cabin, grub, team, and, in fact, everything "found." Besides, the Association pays from \$25 to \$50 for each wolf caught, while the state pays nearly as much. The hide of the wolf is worth from \$10 to \$15, which brings the trapper very near \$100 for each wolf caught. Some of these trappers have made as high as \$300 in a single month. These cattlemen are quick to recognize a good trapper, and, as they spend money freely, a good trapper is always welcomed among them. The United States Biological Survey has done everything in its power to stamp out the depredations of this great scourge of the plains, and, while it has had quite some success by scattering poisoned bait in the places they infest, they have learned that these wolves soon become suspicious of meat that has been poisoned, refusing to be tempted by it.

Trapping has been found the most successful method, while locating their dens, in the breeding season, destroying the young, is also extensively followed. A

wolf gives birth to six to ten pups at a time. For each pup scalp the state pays a bounty of \$10, as do the cattlemen's associations. It is not unusual for these "wolvers" to crawl into a den and pull the pups out alive, first shooting the mother. In case the den is too small to crawl into, dynamite is resorted to. Bert



Bert "skinning the cat"

tells me that one time he made \$80 in an hour, getting eight pups from a den.

No wonder, then that I accepted his invitation to spend a month with him at his cabin in the foothills, in the shadow of Cheyenne Mountain. He had been trapping there for several weeks before I had the chance to join him, and had been having fairly good luck. But it was not the gray wolf of Wyoming that he was after. They are very scarce in this particular part of Colorado.

WHILE Wyoming has the wolf to contend with, Colorado has the coyote (prairie wolf). The coyote is much smaller than the gray wolf, being about the size of a shepherd dog, and is supposed to be a cross breed between a wolf and a dog. They are one of the hardest animals to catch, old trappers claiming they are "slicker than a fox," and harder to trap than the wolf, or even the fox. While there is, or was a bounty on the Colorado coyote, none is paid, as the state fund for that purpose was depleted long ago. Hence the trapper receives what the hide is worth from the fur dealers, receiving no recompense from the ranchers, as they are not organized as they are in Wyoming. However, a good trapper can make from \$25 to \$75 per week on coyotes.

The first morning after my arrival I went with him to look at his traps. He had a line of about ten miles in a circle. The nearest trap was about a half mile from the cabin, then others at intervals of a quarter to a half mile apart, gradually drawing further from the cabin, then, as the circle grew, gradually drawing nearer the starting point. This is the favorite method of the expert trapper. While he had a hundred and fifty traps set, it must be remembered that, then trapping for the wolf or coyote, it takes two or three traps at each "set": sometimes four are used. If a coyote was held by a single trap, there are a great many chances in favor of his escaping, as they make a terrible struggle when the trap springs. In order to reduce this chance to a minimum, the traps are wired together, all firmly secured to an iron stake driven in the ground. When three traps are set, it is called a "triangle"; when four are used, it is called the "square set." When the first trap springs in its struggle the coyote naturally gets another foot in one of the other traps, when there is no chance of escape. In most cases, Bert caught them by two legs, and I have seen one caught by both front feet and one rear.

IT was a long, hard trip that morning, but I was well repaid for it. A coyote and a lynx were the result of the morning's catch. When the weather was not too cold, Bert would skin the catch on the spot; however, if it were too cold, he would throw it over his shoulder and continue on the "line." It must be remembered that a coyote weighs anywhere between thirty to fifty pounds. But that is nothing to him. I have seen him return with three coyotes over his shoulders at a time; I have seen him carry a stove weighing a hundred pounds a mile without a single stop to rest. He can pick a log from the ground and shoulder it, and carry it a hundred yards—a log that the writer could not lift clear of the ground. He glories in his strength; told me he never saw a day of sickness in his life; says that outdoor life, the sunshine and the mountains are his medicines—the simple tonics that God made for his people—and for my people. I inherit a love for the freedom of the out of doors. I never felt better than I do now after a month spent thus. Pure mountain air, sunshine and exercise is all that the "run-down" city man needs!

I have kept a diary of the events that occurred during my stay at the cabin, which are of great value in writing this article. I remained there two weeks, and, while I accompanied Bert to his traps nearly every other morning, I generally remained at the cabin, attending to the cooking, dishwashing, water car-

a pocket gun. The thrill, the expectancy of getting a shot at big game, as well as the possibility of an attack, makes the blood tingle through one's veins.

TO the East of the cabin the great plains spread as far as the eye can reach. From the roof there is an unobstructed view, and it was my habit to climb up and watch Bert as he visited his traps, using powerful bioculars. In case he made a catch he would signal me, then I would hasten to where he was, then, after taking a picture of the catch,

the bright and varied colors of the mountains, their summits crowned with a diadem of snow, is something that I cannot give adequate expression to. In my younger days I was considered a good singer. Right there, with no one within five miles of the cabin, was the place to cultivate that reputation. A favorite song of mine is "Bring Back My Darling to Me." Never a day went by but what that song echoed through those ancient hills and valleys. Bert told me that one morning he heard me singing three miles away. A word will repeat itself a dozen



Bert, the half-breed, and his catch of two weeks



The trapper's camp in the foothills of the Rockies

rying and the many other things associated with life in the mountains. I usually kept the table well supplied with rabbit meat, as they were quite plentiful in the scrub oak that surrounded the cabin. It must be remembered that rabbit hunting in the West is different than in the East. Here one is liable to come across a bear, mountain lion or lynx, and, for that reason, the hunter must be prepared for just such an emergency. Besides carrying my sixteen-gauge shot gun, the right barrel loaded with No. 5 shot, and the left with BB, I carry an old .45, and a lighter .38 as

would return to the cabin. To the west the view is shut out by the rugged Rockies, old Cheyenne mountain looming high above the others, forming an unbroken chain reaching into New Mexico. I studied those great mountains every day, and every time that I looked they seemed changed. Far to the south, from the roof of the cabin, one can see the Sangre de Cristo Range, in New Mexico. (Sangre de Cristo is Mexican meaning "Blood of Christ.") The view is indescribable! Would that I were a poet. Great spruce and pine, garbed in their eternal green, broken here and there by

times ere it dies away into silence.

During those two weeks at the cabin we caught seventeen coyotes and two lynx. Conditions were not favorable, so Bert finally decided he would move out to what is known as the "Little Bad Lands," fifteen miles east of Colorado Springs. This place is all that its name implies. Some great upheaval of Nature had thrown great mountains of loose rocks together, leaving deep cañons and arroyos in every direction. These rocks formed natural refuges for the lives of the hunted. We left the cabin in the mountains and arrived at the "Little Bad Lands" the fifth of February. We were fortunate in securing better quarters here, as we were given the use of a small house and barn by a homesteader who had moved to town for the winter. It took Bert several days to get all his traps out. The next morning I climbed to the summit of a great pile of rocks where I could watch him visit what traps he had put out the day before. It seemed as though nothing had been around them, as I failed to get the usual signal. I sat there about an hour and saw him disappear behind a huge rock about two miles away. As soon as he reappeared I got the signal to come with the camera. Now, I knew enough of trapping to tell me that there was no coyote in that trap, as they are mostly caught on the plains, hardly ever among the high places, so I came to the conclusion that it was either a mountain lion or a lynx. That was just what I wanted, as coyotes had become common-

places. It was a hard walk and climb to reach him, but I finally did, gasping for breath.

"I gotta beeg snoshu rabbit. Be cairful, doan mak a nois, go slo, foar I doan no how fast I got 'im."

"Snoeshoe rabbit! Thunder! There's rabbits all around here. No use for me coming all this way for a rabbit's picture."

I was mad, sure enough—the first time that I ever had cause to be mad at him.

However, to please him (please an Indian and you are solid with him) I consented to take a picture. But, instead of a rabbit, it was the largest lynx I ever saw, in fact the first one I ever

for the "price," but not for the "swipe" part of it. Stock stealing in the West is quite common, especially sheep. It is called "rustling." I thought nothing of the incident, but had good cause to recall it that night.

I was completely tired out, and as soon as I had washed dishes, went to bed. It was eight-thirty, and I thought it funny that Bert did not retire. I spoke to him about it, and he told me that he was going up the arroyo to bait one of his "sets," adding that he would be back in a half hour. I fell asleep soon after he went out; awoke at midnight, but he had not returned. In a way, I was worried; then worry gave away to sus-

on a long, fruitless chase after other "rustlers," as sheep and cattle stealing had been going on quite freely for some-time. After a lengthy word-picture, filled with visions of being "pinched," a heavy fine or ninety days in the county jail, I finally succeeded in getting him to release the sheep. In the morning I saw no signs of it, and supposed that he had turned it loose. However, when I went to the barn after potatoes, there was the sheep neatly dressed in the latest style of the butcher's art. For two weeks we had mutton at every meal, and in every conceivable style.

He walked five miles with that sheep across his shoulders. Just what happened to him, and how he got it, I am telling in his own words. (He is well educated, but a poor speller, and speaks rather brokenly, which is characteristic of the Indian-American.)

"I get to sheep corral alrite. Dem dam dogs bark an' com for me, an' I kick um. I had roap 'round neck of sheep, then Mex come after me, 'an I drap it. I tell Mex I want buy sheep, an' how mutch. Mex he say: 'Yu got-tum firewatter?' I say, 'No, but sum two moons.' Then Mex say, 'Giv me five dollar, an' yu take ba-baa.' Then I get mad an' pull gun on Mex, an' mak him throw up hans, then I put two dollar in him pocket, pik up sheep an' cum hoom."

Knowing that, as a rule, these Mexican shepherders are poorly paid, and that their love for whiskey is so great that they have been known to give a sheep for a quart of it, or the price of a quart, I took his story for granted.



The author with wolf and coyote, a morning's catch

saw in a trap. It was a good joke on me. I laughed; Bert laughed. That lynx was in an awful rage; glared at us in malignant hatred. It would crouch, then spring toward us, all the while making terrible, cat-like screams. I succeeded in getting one fairly good picture, but spoiled another, as, when I snapped the camera the second time, it made a leap toward me, and thinking it had escaped from the trap, I jumped to one side, sliding several feet down the hill. When it was developed the picture showed nothing but Colorado's famous blue skies. After it was skinned I returned to camp and prepared dinner. Bert returned about two o'clock, having caught a coyote besides the lynx.



Returning from the traps after a successful night

AS soon as we finished dinner, we cranked "Lizzie" and drove five miles south where we found the carcass of a cow that had died a short time ago. (Old carcasses are the best bait for coyote.) Bert chopped off as much flesh as he needed, then putting it in the car, started for camp. On the way back we passed a great herd of sheep; there were at least twelve hundred in that bunch. Three Mexicans were guarding them, assisted by the inevitable Mexican sheep dog. Bert told me that he liked "mudden" better than any kind of meat, adding that he'd like to "swipe" one for our own use, as we had both grown tired of rabbits. I told him to stop and go and buy one from the herder, as I was willing to stand

picion—I saw mutton stew for dinner. At two-thirty I was awakened by a great racket. There was Bert—in the middle of the room—across his shoulders—was—a fine young sheep. The Indian blood in him had overcome that of his white brother. I had to laugh; I tried to control myself but could not. He made a most comical sight standing there with that sheep kicking. Then I was mad, for I am Deputy State Game Warden, and am in league with the El Paso County Vigilante Society. Only two weeks previous to this the Sheriff had been out

A FEW days after the episode of the sheep, I was compelled to return to the city. Bert remained a few days longer, having poor luck, so he pulled his traps and returned to the cabin at the foot of Cheyenne mountain, where he intends to remain until the end of the trapping season.

He has received word from one of the largest stockraisers in the Jackson's Hole Country in Wyoming, to report for work as range rider for the summer roundup, then, in the fall, he will have his old position as "wolfer" back again.



Ben, one of Nature's noblemen



Clearing away the driftwood



No barrier was insurmountable

THE RETURN FROM THE HUNT

THE SECOND PART OF A TALE OF AN ALASKAN JOURNEY THROUGH STORM AND FLOOD WHERE THE HAZARD OF ADVENTURE LURES WITH ITS MAGIC SPELL

By JOHN P. HOLMAN

ANDY had lately added a wing to his Cabin—a big, bare room in which were strewn a half dozen immense brown bear skins and many odds and ends of an Alaskan guide's outfit, and we amused ourselves with these for an hour or two until Walter had cooked a mess of potatoes he had dug from a patch in front of the Cabin.

"Bill planted them on my ground so I guess I can claim half of the crop," said Andy, as he helped us to a generous share.

"As long as the patch holds out we won't starve anyway," said Walter as he put the old bean pot on the table and filled our cups with coffee. We had left a good part of our remaining supplies with Bill Kaiser at the fox ranch in order to lighten our boat for the river trip and had brought along just enough to last us for the few days we thought would have taken us to reach Seward, so any unexpected delay would necessitate considerable shortening of our rations. We figured that the rain would soon be over and we looked for a train to come along at any time which would take us to town, so we ate, drank and were merry until the gloomy, wet afternoon blended into a dismal night.

We drew lots for the two bunks in the cabin which fell to Andy and Mackay and the rest of us distributed ourselves over the floor on the bear skins. I slept on a giant Brownie with fur at least six inches deep and so wonderful a bed he made that I soon forgot all about the storm and when I opened my eyes again a thin, wan dawn was breaking over a wet and sodden world.

RAIN was still pattering on the roof and beating against the windows.

Walt was already up and busy at the stove. The door opened and Tom came in with his arms full of wood which he flung down by the stove to dry and remarked that "it sure was raining." "You're damn right," said Andy, as he gazed out of the window by his bunk, "and the lake is rising, too—see that old stump down there almost under water? That was ten feet from the edge of the lake when we came in yesterday." Sure enough, the

RETURNING from a successful hunt for bighorn sheep in the mountains of the Kenai Peninsula, Alaska, Mr. Holman's party is delayed by engine trouble and a bad storm, as told in the last issue. After great danger and many hardships they arrived at Andy's cabin, on Kenai Lake, near the new Government Railroad.

water was rapidly creeping toward the cabin. Inch by inch the flood was advancing while the roar of Victor Creek could be heard above the din of the rain—belching a great body of muddy water far out into the lake. Huge trunks of trees, broken branches and all manner of drift-wood swung outward on the strong current while huge boulders went grinding over and over in the shallow parts of the stream near the shore with the rumble of thunder. "No train today," said Tom, "if this rain keeps up God help the Government Railroad."

After breakfast Mackay and I ventured out into the storm and walked up the track to Mile Twenty where a section gang was quartered and learned that there had been several washouts along the line, but that a train was expected about noon, so we went back to the cabin, packed all our outfit into the boat and took it around to the station-tent just as the long screech of a locomotive echoed among the fog-wrapped hills. A train pulled in but the conductor told us he was going to take it on to Mile Fifty-four and would not be back until three o'clock the next morning, so we went back to the cabin with our boat-load and settled down to another long afternoon of waiting, while the rain came down harder than ever and the lake crept closer and closer to the cabin. Late in the afternoon we tramped to the station again and learned that the train would not be back until sometime the next day as another wash-out had occurred and they didn't know when they would have it fixed. Tom got too restless to wait any longer and got a ride on a hand-car or speeder

with a section hand who was going over the track to Seward while the rest of us went back to the bean pot, the spuds and our Brownie skins for another night. Andy drove a stake at the water's edge, twenty feet or more from the cabin, and when we turned in about nine o'clock the water had crept up eight inches more—and was still going strong.

IN the morning the rain seemed to be coming down harder than ever. All restraint had been cast to the winds and it settled down, earnestly, conscientiously, and stubbornly, to pour. Another trip to the station elicited the information that the wires were down and they didn't know where the train was or when she would arrive, but thought probably she would come along sometime during the evening, so we decided to move all our belongings over to the station and wait there so as to be on hand when she did arrive. Accordingly, we packed our trophies, sleeping bags and other duffel to the tent by the track during the afternoon and composed ourselves in patience to wait. Afternoon drifted into night and nothing happened but the rain—that happened with relentless consistency. The tent began to leak and pools of water formed on the floor. "Why wasn't I born a duck!" said Andy, as he moved about in search of a dry place to sit. In the middle of the tent stood a big drum stove which Ben said might as well be working.

A chill had begun to creep into us from the black and sodden night. When we had burned the few pieces of dry wood that were lying about, Ben, without a moment's hesitation, began to tear up the railroad ties that formed the floor. "As long as the floor lasts we will keep warm," he said, as he opened the stove door and thrust in a tie. We began to dry out a little and Walt found a candle some place which added to our complacency; then he fashioned a lantern out of a tin can with which to signal the train if it ever should appear. Every hour or so we would look outside and strain our eyes through the darkness toward a little light at Roosevelt, about three miles up the track,



The train stalled at Mile Twenty



Destruction wrought by the flood



Victor Gombard's picturesque cabin

and try to imagine that there were two—one emanating from the head-light of a locomotive—but only the wind and the rain were astir and the continued pelting on the roof was conducive to slumber. Andy had already succumbed to the power of Morpheus, so we worked out a two-hour shift at watching and Walt took up his station by the tent door while the rest of us unrolled our beds and gave way to sleep.

About midnight we were awakened by the cry "Here she comes, boys" and we came back to life with a jerk. Sure enough we could see a little light, bleared by the rain and mist, but a light, nevertheless, creeping nearer and nearer and by the time we had our shoe-pacs on and our beds rolled up we could hear the engine puffing and snorting up the grade.

Out we filed into the wet night, piled all our stuff by the track and Walt bravely waved his sputtering lantern. "Spot the coach," yelled the conductor as the heavy train came to a stop in front of our tent and we climbed aboard at last. We stowed all our duffle in the freight car and distributed ourselves among the crowd of men that were huddled in the seats of the day-coach in attitudes that expressed sheer exhaustion. Slowly we crept along through the darkness—rumbling and swaying on the uneven track—the engineer evidently feeling his way along in a manner that denoted caution. A half-hour of this and the train slowly came to a standstill. "This is as far as I will take her tonight," said the engineer, a burly Scotchman of determined mind. "You can't run a train on the water and I'll be darned if I can see any track." So we waited patiently for the dawn—the lights in the coach went out and the rain beat against the windows in no uncertain manner.

About six o'clock daylight was strong enough for us to see that we were in the middle of a vast stretch of rushing water—the track and wheels of the train were entirely submerged and the water was gurgling about the cars in a way that bid fair to undermine us at any moment, so the engineer cautiously backed the train to higher ground. Walter said we were close to Mile Seventeen where he had a cabin and suggested that we walk back there and see if we could rustle some breakfast. Accordingly we left the train and plowed through the mud and rain until we found a trail leading down from the railroad into a grove of cottonwood trees where stood the little cabin.

A THIN wisp of smoke coming from the chimney told us that it was occupied and presently we entered and found a man called Windy Wagner standing by the stove cooking breakfast, while two other fellows, Louis Bell and Victor Gombard, were just getting up. They welcomed us royally and Windy insisted on making a great stack of hot cakes which, with fried eggs and bacon, mush and coffee, made the most wonderful breakfast I have ever eaten. All the while Windy talked and laughed and made us feel as though he was having the greatest time of his life in cooking for us. It was the spirit of the true Alaskan, always ready to share whatever they had, and to help whoever came along. While we were eating, Victor Gombard said he was going down to the lake to see if his boat was all right and he returned in a little while with the report that the train had backed up a couple of miles farther and that a big landslide had come down and covered the track many feet deep with rocks, trees and mud only a moment after the train had passed.

He said he thought the whole mountain was giving away by the noise it made and had run all the way back to the cabin to warn us. After an hour or two we decided to look up our train again, so we ventured forth and walked up the track through torrents of rain, feeling our way over the sunken ties until we reached the point where the slide had occurred and then we faced a tough proposition—the great slide blocked our way completely and was of such a soft consistency that we could find little foothold and could only cross by jumping from rock to rock or precariously walking on the fallen tree trunks. All the while wet earth was slipping on every side—new slides starting far above us which necessitated careful watching in order to keep from being buried alive. Luck held true, however, and we worked our way along over the huge mountain of debris to the comparatively clear track beyond and finally reached the train in safety.

THE engineer had backed it up almost to Mile Twenty from which we had started so blithely the night before—and there it stood puffing quietly, completely cut off by the landslide in one direction and a washed out bridge on the other. So we went back to Andy's cabin again and dug a few more spuds for dinner. We found that the lake was still rising—Andy's stake was almost submerged and the water was lap-

ping hungrily at the doorstep of the cabin. The lake itself was filled with immense pieces of drift-wood—great trees torn whole from forests far up in the mountains were whirling around and round in the maelstrom of conflicting currents that made the lake a vortex for a hundred streams—some of them rising far up in the region of eternal snow and fed by glaciers that the constant rain had loosened.

Pot-holes and ice-jams had given way on every mountainside and added a heavy burden to the swollen streams—a deluge of water that bid fair to swamp the entire country and the leaden skies showed no sign of let up.

"Noah had nothing on us," said Ben, as he tied Andy's canoe to the door latch of the cabin, "we may need you, old boy, before the night is over," he added, with a whimsical grin. So we were back once more in our old quarters. Walt had gone to Howard Long's cabin, about a mile away, to get a piece of bear meat and when he returned we had a cozy fire burning and the spuds were ready to eat.

As we turned in that night we noticed a little water leaking in around the door-sill and the rain was beating against the windows with renewed fury. "It's a good thing we are not on Kenai River now," said Walter. "You're damn right," said Andy, as he pulled away on his pipe in quiet contemplation of our snug quarters. Walt blew out the light and we settled down to sleep. I shared Mackay's bunk as it was farther off the floor than my bear rug and it somehow looked better to me. About one o'clock Mackay sat up in the bunk and struck a match along its side. "Well, I'm darned if we aren't all afloat!" I heard him exclaim through the fog of sleep that still held me. Sure enough, the water was half up to our bunk and everything on the floor of the cabin that could float was bobbing around like torpedoed ships. Mackay reached over on the table and lit the lantern and at the same moment Walter came plowing through the water from the annex where he had been sleeping on some boxes and said it was "too damn damp" for him. Ben was standing on the edge of his bunk pulling on a pair of boots; Andy grunted from a pile of blankets on the far side of the bunk and wanted to know what all the disturbance was about, but when he comprehended the situation he agreed with us all that the time had come to move. Accordingly we made a bridge of boxes to the stove and Walter got the fire going with

some wood he had stowed away in the oven the night before. We soon had a hot breakfast of bear meat and pan cakes to begin the day's adventures on, eating it astride our bunks—on the top of the table—every place in the cabin that showed a dry spot held a hungry man munching away for dear life.

All the while Walter was busy making more cakes on the stove before the water would rise high enough to put out the fire. By the time we had finished breakfast and had washed the dishes and tied every perishable thing to the rafters the water was knee-deep everywhere. Ben waded out in his boots and got the canoe which he shoved as far into the door as it would go and we climbed aboard.

A SOLEMN looking dawn was just spreading over the east as we put out on the black waters—the cabin looked like the ark of old moored in an arm of the lake. Through the dim light we could make out the direction we ought to take to reach land and Ben steered us between the stumps with dexterous care. Rain was splashing down with ceaseless drenching—raising little dots of silver on the water—each drop of lake water seemed to spring to meet the rain drop and, mingling, added to the flood. Victor Creek had become a thing of terror—huge trees, two feet in diameter, were tossed about like toothpicks in the racing tide, the railroad bridge that crossed it near Mile Twenty was piled high with wreckage, a great mass of driftwood growing ever larger as the great body of wild water brought down its burden of logs and underbrush. Men were busily engaged in trying to break the dam, blasting out the piles to let the water through and the constant boom of dynamite sounded like the thunder of big guns; the bridge itself was twisted and bent under the immense strain, but the rails were holding like bands of steel. We landed near the railroad track and saw how hopeless it was to expect any assistance from the water stalled train, so it didn't take us long to decide to make for Seward twenty miles away. We left all our luggage on the train and paddled around to Howard Long's cabin where Andy wanted to leave some of his belongings. Long told us that the Snow River bridge between us and Seward had gone out and he didn't see how we could make Seward unless we crossed the lake and skirted the other side around the river.

Ben looked out across the wild expanse of criss-cross currents that lay between us and the other side and seemed to muse for a few moments on the great mass of snags, trees and driftwood swirling around in countless eddys. Finally he turned and said he thought we could make it if the outboard motor wouldn't buck, and we all agreed it was worth a try anyway. Long made some coffee as a parting gift which we drank in libation to the Gods of Chance and we shoved off on our voyage across the seemingly boundless lake.

Ben took the rudder and steered us

with a master hand through the floating forests of driftwood that seemed to block our way at every turn. The light canoe was pretty well down in the water with five heavy men seated in it; but it responded to the motor with wonderful alacrity and we sped along joyously toward the dim shore beyond. The Autumn coloring had been freshened by the constant rain and stood out in great splashes on the mountain sides, scarlet maples flashed their flags of war throughout the vast swamplands newly created by the flood. We passed many little islands of crimson bush, which seemed to radiate their color on the water and made our pathway glow with beauty. High overhead a troop of whistling swans were winging southward, their trumpet notes sounding faintly from afar. Doves of ducks were circling ahead of us in constant flight, well satisfied with this wet mood of nature. Floating trees took on strange shapes,



Holman and his black bearskin

spreading out their full-leaved branches on the water like long-oared galley ships of old. Deep whirlpools sucked and tugged at us as we passed within their spheres of action. Great logs scraped their sharp and spear-like branches along the frail sides of the canoe and startled us with many a sudden lurch which made us realize what an upset would mean in such an angry sea; but it was the hazard of adventure that had brought us to this far away land of unexpected things and we were tasting now its magic spell.

We got across alright and skirted the other shore into the mouth of Snow River as far as we dared to breast the uncertain current and then ran the canoe ashore on the farther bank and disembarked with grateful thanks to a benignant Providence that had guided us on our voyage.

We carried the canoe high up on the

bank and fastened it securely to a tree and then struck out through the wet underbrush toward the railroad, which, as near as we could judge, was about five miles distant.

IT was a watery journey, to say the least. Underfoot, thick moss, saturated to the limit by the steady rain, offered scant foothold and we sank in at every step almost to our knees, while the dripping branches of alder slapped us with showery persistency as we wormed our way along mile after mile, blindly groping through a wilderness of swamps and jungle. "It's a great life," said Ben, "if you don't weaken."

We made the railroad at last, coming out by Snow River bridge, or what once passed as such—the twisted timbers and half submerged rails, hanging pileless in many places, could not be termed a bridge any more—the storm had certainly done about as much damage as it could to the new Alaskan Railroad.

We rested a few moments, emptied our shoe-pacs of water and then started down the track at a good pace for Seward.

The mile posts slipped gradually behind us as we plodded onward—walking gingerly over many high trestles that spun a web of steel above many a roaring cataract and made us dizzy as we stepped from tie to tie and saw the empty space between. About three o'clock in the afternoon a wonderful thing happened—the leaden sky began to show signs of clearing, just a faint glimmer of blue appeared and it stopped raining. Great clouds of vapor rolled up from the valleys round about and giant mountain-tops began to pierce the mist. Yes, it was really clearing off, "Just as I was beginning to grow webbed feet," said Ben.

At last the glorious sunshine burst suddenly on the scene filling the world with bright illumination—turning the far-flung clouds to gold. It gave new impetus to our lagging feet and brought to weariness a sense of strength.

WE journeyed cheerfully down the iron trail through vistas of transcendent glory—snow crowned mountains paling pink in the flush of a marvelous sunset—all the world afloat with light. As we wound down into the valley signs of great damage done by the flood began to appear at frequent intervals. In some places whole mountain-sides had slipped downward carrying giant trees and huge boulders from their former abodes and depositing them in gigantic heaps along its path. In many places the railroad track vanished into deep lakes of muddy water—sometimes we had to wade over ties suspended by the iron rails—all signs of underpiling swept away. About a mile from Seward we found an abandoned hand car lying by the track which we soon put into commission and rolled into town on the wings of the wind—but a sad looking town we found awaiting us. The little glacier stream which usually

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SHOOTING DUCKS AT OCRACOTE

YOU WILL HAVE A MOST RESTFUL AND ENTERTAINING TIME LYING IN YOUR LITTLE COFFIN, WITH ENOUGH EXCITEMENT TO KEEP YOU INTERESTED

By W. R. BROWN

IF one wishes to become accustomed in the pleasantest manner possible gracefully to occupy a coffin, it can be done while shooting ducks at Ocracote. Said coffin is nothing more or less than one of a pair of shooting floats built side by side beneath a flat top, with flaps of burlap on frames to float on the three windward sides to keep the crest of the waves from breaking into the boxes, and the whole anchored where it is shallow and sunk to the level of the water, apparently right out to sea and surrounded on all sides by a huge field of the most natural decoy geese, brant and ducks imaginable.

To be exact, your coffin or float will be off the coast of the little island of Ocracote in Pamlico Sound just south of Cape Hatteras, where some of the best shooting on the Atlantic coast can be had. The town itself is a most picturesque little fishing village, situated on a long spit of sand that runs parallel to and sixty miles from the coast of North Carolina, and forms that easterly point of the Southern States around which sailors cautiously navigate, and are not disappointed in their expectations of a stormy sea.

In the sheltered bay of Pamlico Sound the water fowls stop on their way South to find a haven of rest and feed on the wild rice and celery which grow on the shallow shoals of the Sound in great abundance a few feet below the surface of the water. Particularly after a storm they congregate in immense numbers from the month of September to February, and morning and evening one can see great flocks of them sweeping up from the horizon like smoke clouds opening and shutting, or skimming along the surface of the water in long files and filling the air with quacks and whirs.

This is particularly the home of the brant, one of the larger and more delicious of the ducks. Long lines of wild geese in their curious "V" shaped formation trail overhead with hoarse honks. Flocks of beautiful white swan are seen headed for the South, and occasionally in the coldest weather the canvas-backs come down from their favorite haunts in Chesapeake Bay.

In various places on the surfaces, long low black lines show where the flocks alight, with here and there a glimpse of white breast or tail where the birds are feeding and diving to uproot the succulent roots from the bottom.

ONE comes over from the small city of Beaufort on a mail packet which touches from island to island and eventually reaches Ocracote just as the



The coffin and the decoys ready for action

sun goes down, and finds a little fishing village around a half moon shaped bay, surmounted by a tall white light house and flanked on one side by a Government lifesaving station and on the other by wharves and fishing houses. Little cottages nestle among diminutive and picturesque cedars which have been gnarled, twisted and stunted by the frequent gales, with tops that bend patiently away from the open sea. Thickets of evergreen bearing red berries somewhat like holly form protection for small gardens of vegetables, particularly delicious sweet potatoes, and here and there one notices with surprise small fresh water ponds which fill from hidden springs, coming at least a hundred miles under the sea. One is also surprised to find here abundant pasture the year around for small herds of half wild ponies, cattle and sheep that wade across the sand spits from one island to another and browse upon the short salty grass.

Behind the cottages rises the spire of a church, and as one approaches in the late afternoon, all the white buildings, the light house tower and church spire are suffused with a rosy light, and make a picture of the snug haven town as sung by the Ancient Mariner.

OUR party was fortunate to stop with one of the native guides who make hunters comfortable in their clean and attractive little homes, and after a royal dinner of oysters, roast duck, sweet potatoes and other delicacies, we tumbled early into our feather beds on account of the early start to be taken the next morning, and were lulled to

sleep by the roar of the great sea beating on the treacherous sand bar two miles away. During the hunting season many of the native fishermen put their boats, decoys and shooting boxes at the service of guests for a reasonable figure, and take them into their clean and hospitable little houses, and one is truly cared for.

The method of hunting is as follows: One is awakened about four A. M. to eat a substantial breakfast by candle light, after which he is taken out of the little harbor to the shoals in the guide's motor boat trailing a scow behind which is filled with decoys, the shooting box and other paraphernalia. The shoals are a mile or two off the coast. Here the water is found only two or three feet deep, and all members of the party being provided with hip boots, they disembark and take a hand in anchoring the shooting box and weighting it down with iron decoys flush with the surface of

the water. The shooting box as we said before consists of nothing more or less than two coffins side by side in a flat oblong top surrounded by three flaps of burlap on frames resting on the surface of the water to break the waves so that they will not splash in. About two hundred decoy ducks, geese and brant are thrown out all around the shooting box, kept in place by strings and weights, and on the outer edge of these attached more securely by their legs a half dozen wild geese which the evening before were feeding quietly on the little fresh water pond in front of the guide's house. These geese seem to enjoy the proceeding as they have an opportunity to swim about within a narrow radius and feed upon the bottom and honk vigorously whenever wild ducks fly overhead, and serve to call them in. Usually once or twice in a season our guides tell us some excited hunter will forget their location and serve them as he does the wild game, to their discomfiture and his chagrin; but I imagine that in such a case reparation is generously and quickly made, as was done in the case of the greenhorn who was hunting moose in the Maine woods with a native Indian. At the proper time and moment a bull moose was seen passing within gun shot and the inquiring hunter looked to the Indian for a signal to fire, but the Indian sadly shook his head. Immediately behind the bull came a cow moose and the Indian appearing abstracted, the hunter killed the cow moose in fine form. Upon discovering his error, it being against the law to shoot a cow moose, the Indian remarked, "Some hunter when kill cow moose give Indian guide five dollars."

THE decoys being ready, you and one of your guides climb in and lie side by side on your backs with your guns across your laps and convenient boxes of cartridges at your feet. The little motor pushes off and retreats to a convenient hearing distance a quarter of a mile away. For a time you lie flat, concealed by the iron decoys and peep furtively over the side to note the approach of any game. The flocks that fly high see into the box and sheer off out of range, but others that see the decoys from the far horizon and decide to alight to join them in feeding, swing low at some distance away, especially if one of the hunters kicks up once or twice with his rubber boot in imitation of ducks standing erect and flapping their wings. The live ducks honk loudly and finally the flock takes the water close to the decoys with a rush and splash without detecting your presence in the box. At the moment of their arrival both you and your guide sit upright in your box and blaze away at the rising birds according to a prearranged order, in which each man shoots, the one on the left taking those farthest to the left

and the man at the right those behind. Shots at the right or over one's head are extremely difficult in a sitting position to become proficient in, but it can be done, as was proven time and again by your expert companion. A bag of four or five out of a flock is not uncommon to an expert with a repeater. One and one-eighth ounces of number four shot with three and one-quarter drams of ballistite powder is preferred for general use on large and small water fowl. Killed and wounded birds are secured by wading after them in the shallow water, and if they fly too far away before they can be gathered in, a system of signals which has been arranged with the motor boat brings it quickly to the rescue. Little game that is severely wounded escapes, and the guide usually sees to it that little of the game needs further attention after he has shot. Bags are limited by law for each day's shooting to reasonable numbers, and no market shooting is now permitted.

L YING still in the box does not prove as cold as one might expect, as the sides break the wind and one goes

warmly clad. In rain, however, even with oil skins on, one's face is well washed and other parts of the body nicely soaked, if the hunting proves, as it usually does at such times, exciting; but relief can be had at any time by calling in the small motor boat and repairing to the warm cabin where hot coffee and sandwiches are available.

The way your guide can tell at a glance the species of bird approaching when far on the horizon, and usually whether he is intending to come within range, is uncanny. Your guide will also imitate calls of the various birds to bring them down when they fly high.

You will have a most restful and entertaining time lying in your little coffin out to sea, with enough excitement all day to keep you keenly interested. If you wish more exercise, the hunting is good along the shore of the little island for snipe and plover. All told you will find the little island of Ocracote an ideal resort for a tired business man if you are in any way proficient with your gun, and in any event your guide sees to it that you have something to take home to the questioning family and friends.

A COMPLICATED FOX HUNT

"HAMLET WITH THE DANE LEFT OUT" BEST DESCRIBES
THIS CHASE ACROSS FROSTY NEW ENGLAND FIELDS

By RICHARD BULLOCK

I N September, with a brother sportsman I bought a fox hound from an old hunter in Connecticut who was no longer able to hike. We paid thirty-five dollars for the dog, knew we were getting a good one, but did not think him anything fancy. My friend, a farmer by profession, who had the care of the dog, was anxious to exhibit him in the Worcester North Agricultural Fair. We did so. Sankey, for that was his name, took a blue ribbon, a special ribbon, won a silver cup, and five points towards a championship. His value immediately increased by leaps and bounds until we were offered one hundred and fifty dollars for him. We decided, however, that as he was the only good dog we had ever owned, and had cost us so little, we would keep him in the hope of future sport.

During October and November, in order to improve my health, I stayed at the Harvey Hale farm in New Hampshire, for two periods of two weeks each. This farm, a real old New England homestead of the finest type, is most richly endowed by nature. Situated on a high hill, with Emerson Pond to the east and Grassy Pond spread out on the west, together with Mount Monadnock at its most attractive distance, the combination of land and water affords scenery of rare beauty. Sunrise and sunset, in themselves a treat, were enhanced by the sight of numerous flocks of ducks, and occasionally of geese, which stopped in their flight to the sunny south to rest and feed in the ponds.



"Sankey," the best dog we ever owned

M Y second visit, just previous to Thanksgiving, found the best of the bird season passed, and the flight of ducks almost at an end. Realizing that such would be the case, I took with me my hound Sankey, since fox hunting promised to be the most likely source of amusement. Many a

night, earlier in the fall, I had heard the barking of foxes, while more than once, at daybreak or at dusk, I had seen them mousing in the fields immediately surrounding the buildings. Their tracks were everywhere. No question but that they were very plentiful! Before leaving home, I had had forty-nine minds as to whether or not I should risk taking the dog, owing to past sad experience in similar ventures.

The first morning after my arrival was clear, with little wind and a light white frost, ideal for pestering Mr. Fox. Harvey and I set out soon after breakfast and had been gone less than three-quarters of an hour in the direction of Hubbard Pond, so-called, when the dog took a fresh track and was soon driving finely. Shortly he passed out of hearing, and, as the doctor's orders allowed me only moderate exercise, Harvey and I dropped down in the lee of a stone wall where we could enjoy the welcome sunshine and await developments. I had just remarked to Harvey that I had walked as far as I was going to—was going to play a waiting game. After some twenty minutes, we once more heard the dog, faintly, and knew that the game had made a turn. Soon he came nearer, packing the supposed fox hard. Then, when within good hearing, he suddenly changed tongue and barked "in." I had been told that when a fox "holed up," Sankey would stay not more than five minutes before starting in search of his master. He kept on barking, however,

in a way that made me rather anxious. I felt certain that he had a wildcat up a tree or that there was some other unusual circumstance. We accordingly hurried down in the direction of Hubbard Pond, judging from the sound that he was on the nearer shore. That morning, at the house, it happened that Mr. Hale and I had discussed the dangerous ice conditions, for the water on the various ponds was skimmed over in protected places along the banks. He had often heard, he said, of a fox running out on such new ice, knowing perhaps that it would bear his weight but allow a dog to break through, and drown.

PRESENTLY we realized that the barking came from the opposite side, and on pushing through the last fringe of brush, could see much splashing of water. Excitement straightway reached a high pitch. We figured that the dog was a "goner." What wouldn't I have given for my binoculars! The pond being large, with long and irregular coves, there was no possibility of our getting around to the dog's assistance in less than several hours. We did the next best thing, ran around the first cove as fast as the country would permit and, on reaching a summer camp, lost no time in breaking a padlock, grabbing a boat, and in putting out with a broken paddle and a pole for implements. In the meantime, I had shouted occasionally to the dog, calling him by name, thinking thus to reassure him and let him know we were coming. When we had shoved out several rods, our first unobstructed view of the farther shore gave us a thrill. There, like the branches of a small, scraggly tree, were the antlers of an eight-or-ten-point buck showing just above the water well out from the shore; but neither before, nor then, could we see the dog on land or in water; yet his continual "ow, 'ow, 'ow," testified that he was on the job. Tactics changed abruptly. We made back to land, snatched up guns dropped in the first rush, dug deep into many pockets for all available buckshot, and started out.

The wilderness setting about the pond was of a sort that one might find in the heart of the Maine woods. There was no sign of human habitation save the lone camp site. Pine and hemlock of heavy growth bordered the pond in solid ranks. A chill, crisp wind now

whipped the dark blue waters, while in the western distance Mount Monadnock loomed forth boldly. Our progress across was naturally slow, for the boat was flat-bottomed, and the stiff breeze more against than with us. Every few seconds, as the waves smacked the square sides, a dose of cold spray wet our knees and legs. Yet there was no time to lose. Any minute, one well directed stroke of those knife-edged hoofs and Sankey would have followed his last trail! The buck was plunging fiercely in his strenuous ice-breaking efforts. Every now and then his forequarters showed for an instant. If the splashing, flying spray indicated aught, some battle was under way. So we dug the water desperately, while language too played its part.

PERHAPS a third of the distance to the ice sheet had been covered when a sudden stillness impressed our



Hubbard Pond, the scene of the complicated fox hunt

minds. The dog had ceased barking! Could it be—? We stood up, strained our eyes—the commotion was at an end. Straightway, vengeful thoughts spurred us on. Within the next few minutes, the buck, previously up to his neck swimming, reached bottom; now his whole body showed above the surface. Standing broadside, head turned in our direction, he appeared exhausted. Again, what wouldn't I have given for my old .44, which I often carried; but a fox hunter on business bent must limit himself to strict essentials. By that same token, no camera was at hand. One hundred and fifty yards still intervened, a third of which distance was open water. Would fatigue plus curiosity hold him until we pulled within range? Not a chance! That deer was a firm believer in "safety first." Once started, it took him but a twinkling to gain the water's edge, when with a single,

bound he cleared the high bank. Instantly, the ready automatics poured forth seven barrels of buckshot, the sole effect of which was to hasten his flight. Four or five great jumps along the crest and he dropped behind the protecting ridge. To break a connecting channel through the ice sheet that would admit us to land, seemed easy; but when we made the attempt, the boat struck with a solid bump. Mr. Hale got his stout pole into action and gradually worked an opening for some four or five boat lengths. The ice, all of an inch thick, was giving unexpectedly strong resistance. For the first time, too, we realized that the craft was leaking badly, and this, together with the amount of water already shipped, brought the gunwales uncomfortably near the pond level. The thought of the old tub's foundering was at best a chilly one. A glance ahead, thirty yards to go, a moment's hesitation, and we reversed action, heading for the home shore. We could not hasten hence made port none too soon.

EQUIPPED with better paddles, extra poles, and with a boat free of water, we recrossed the stretch at faster speed, when renewed energy and more clever manoeuvres forced a passage. Then we began taking notes and much of the story was simple reading.

The buck, hard pressed by Sankey, had laid his course for Hubbard Pond, with the intention of swimming across to evade pursuit. His approach had been by a narrow neck of land, or spit, that reached well out from the main shore-line. Coming to the pond bank, he found a hundred yards of ice between him and the open water. There was no turning back save to confront the dog. He chose to face other music, made the plunge, and smashed his way for fifty yards toward freedom. A mass of hair still floating on the field of action bore witness that the sharp ice edges had not curbed his courage. All this was clear—but what of Sankey? No sign of him on shore, no answer to our calls! Could it be that fear of punishment at our approach had caused him to retreat? Surely, with that buck hemmed in before his very eyes, he had never left. Could the deer have pushed him under in such way that, coming up beneath the ice, he had struck off in a wrong direction to find the surface? Or had a single

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WHERE the SHARKS PREY



NURSE SHARK
OR GATA.

By W. LIVINGSTON LARNED

Down from Marco to Caximbas, and Among the Mangrove Keys of the Gulf Coast. What is a Fisherman to Do When Barracuda Gets the Groupers? Man-eater and Hammer-head Paradise. Three Adventurous Cruisers Fall in with a Mysterious Craft and a Still More Mysterious Crew and Secure Definite Proof That Someone is "Shooting Up" the Egret Rookeries.



MACKEREL
SHARK.



SHOVEL-HEAD.

TO the members of the little party, there was always picturesque value to the adventurous caraval that, having cruised successfully from Miami, down the East Coast, through the Keys and far up to Marco, in the Gulf, on the opposite side of Florida, was now jauntily headed for perhaps the most highly seasoned pages of its sporting diary.

Repairs had been made to the *Mae* at Marco and she was towing her small charge with old-time assurance. Hendry, a monument of lantern-jawed complacency, still kept to the wheel, with Mr. King ready to relieve him as occasion demanded. John, Jr., was as active as a monkey, shifting from the larger craft to the smaller when the mood happened to strike him or when trolling took his fancy.

The weather was as near perfect as fair skies, sunshine and pure, clean air could make it and the uneventful trip to Caximbas Pass was negotiated in short order. Who could believe that it was December 24th and that on the morrow Christmas would light its candles over the universe of man! The fine sloping beach shimmered in the sun and they were fast approaching the mouth of the river, with a view of the town of Caximbas, like a fairy village in a magic sea, set high upon its quaint shell-mound bluff. This curious formation of shells—there are those who contend that Indians threw them there in the feverish search for pearls, five hundred years ago—reaches a height of fifty feet as it rises back of the shabby little town. For there is not much to Caximbas—

a dozen or more houses and the smells and care-free abandon of a fishing community. Now and again, the dredges come in from the Gulf, with their loads of dripping clams and Caximbas cans them for the trade. Otherwise it is desolate, uninhabited—an oasis, as it were, between the upper regions of civilization and the bustling progressiveness of the Keys. The term oasis is used advisedly, for while there are few humans, the scenery is beautiful.

NOW the boat ran in between two large mangrove islands and the mainland, with Key Romano, some seven miles in length, a profitless realm of shiny beach and mangrove thickets over and through which the gulf waters wash with the coming and the going of the tides.

As soon as the *Mae* was clear of the last swamp-land and the open water invited, Mr. King took the wheel, while Hendry and John went to the launch for trolling. It was too fine a fishing ground to allow this opportunity to pass. Lines and spoons were rigged for grouper, of which there were any number. Ten minutes had not passed before Hendry caught a five-pounder but the tug on the cord suddenly eased and the guide ripped out a cuss that did the situation justice.

"Barracuda got him," Hendry growled, kicking the seat in his anger.

All that remained of the grouper was a jagged head. Sharp teeth had done the trick with speed and despatch. Shortly afterward John had a similar experience. Another five-pound grouper fell prey to either hammer-head shark or barracuda. And so it went, time after time, and hour after hour. Not once was a whole grouper brought to the surface. The *Mae* seemed to be traversing a rather shallow area, in which grass grew luxuriantly and occasional beds of marl raised high enough

to be dangerous.

"We fish barracuda then," grunted Hendry, "catch him and I hammer his head in with hatchet." whereupon he lapsed into another spell of fancy cussing that had enough Seminole mixed with it to give it veneer for young ears.

And then Hendry prepared two two-hundred yard lengths of sash cord each with its chain-held string of three large four-inch hooks. He had smuggled a fat mullet on board from Marco, in expectation of some such emergency, and long strips of the fish were fastened on the hooks.

"More trolling?" John inquired, as Hendry made the sash cords fast to the launch seat, with a few feet of play to spare at their feet, "you could catch a whale with this rig."

And it was John who actually caught the first barracuda—a fifteen-pound flash of dark steel blue in the sunlight. Poor John was not expecting that sudden and tempestuous yank. The play of cord caught one foot and the boy was slammed over against the side of the launch with a force that might have resulted painfully had not Hen-

The Tragedy of the Egret!

The Egret is on the verge of extinction. Read what our native authorities have to say: "Tourists who went to Florida prior to 1890 have told me of prairies white with Egrets, of busby islands glistening in the sun-like snow banks. Now you may look for miles along a lake shore and perhaps in the distance see a solitary Egret, which as you approach, with a frightened squawk takes wing a rifle shot away. The rapid extermination of these plume-bearing birds is startling evidence of man's power in the animal world. At his word a species is almost immediately wiped out of existence. I have heard a plume hunter boast of killing three hundred Herons in a 'rookery' in one afternoon. Another proudly stated that he and his companions had killed one hundred and thirty thousand birds—Herons, Egrets and Terns—during one Winter. THE DESTRUCTION OF THESE BIRDS IS A BLOT ON FLORIDA'S HISTORY."

And again—
"The curse of these birds was the beautiful plumes or 'aigrettes' which they wear only in the nesting season and which, for this reason, have often been called the 'Bridal' plumes. The story of the destruction of these herons for their plumage is perhaps the most disheartening and certainly the saddest of any connected with the killing of wild birds in this country. The herons and egrets nest in large colonies and the men employed by the feather dealers to obtain the plumes, visit these colonies when the nesting season is at its height and when the mother love of the parent birds is so strong that no amount of shooting will make them leave the place. Here, usually with small, noiseless rifles the herons are shot down as they come in from the feeding ground with food for their young, as they sit upon their nests, or sometimes as they mistake a wounded comrade tied to a stake in the swamp as a decoy. The plumes are then stripped from their backs and the bodies left to rot. Sad as this is, it is by no means the saddest part of the story. The young birds which occupy the nests at this season and which are of course entirely dependent on their parents for food, are left to starve to death after pitifully calling, sometimes for days, for their parents who lie in the swamp beneath with their backs torn out, that women may wear the looted plumes in their hats."

dry caught him. Mr. King saw what had happened and slowed down the engine, while the two of them played with that fighting-mad barracuda. The *Mae* swung slowly around, and Hendry's teeth clicked as he braced himself and brought in John's prize.

"Wow!" shouted John, "he's first cousin to a man-eater. Look at those teeth." He ended with a gurgling dismay as the guide delivered a blow with a hatchet that took some of the fight out of the big fish.

"See mouth," Hendry suggested, holding it wide, and still convulsively jerking, "sometime barracuda pulled in boat and cause lots trouble. Big teeth—like shark—long—make ugly wound. I see barracuda break man's wrist when he thrash around. Crunch—very bad!"

And then John's delighted companion demonstrated how the three hooks did their work. That whirling strip of mullet had been irresistible, but the last had saved the day. It was seldom at they went further than the second.

MR. KING called a halt to further fishing, despite its allurements. They must make Round Key before nightfall and the afternoon was waning. In any event, despite the bad luck at grouper fishing, the barracuda made up for the first disappointment and John, Jr., yielded to the call of the next camp.

But the *Mae's* engine began to misbehave again, shortly after the new start. Marco had provided new spark plugs and other requisites. That hole in the leaky cylinder, caused by rust, had never been adequately repaired. A new cylinder was really the only answer to the problem and Marco did not keep such a thing in stock. In order to make any headway at all, Mr. King saw it would be necessary to file out the old break and plug it with a larger peg of cypress. Cypress swells, when wet, and until it burns out, is not a bad makeshift.

Things went monotonously and at four o'clock they were rolling pretty well in the roughening water, with no hope of an early get-a-way. It was then that

they had their first glimpse of the "Spoonbill." of Key West. Around from behind the button-like mass that was Round Key, dimly seen to the southeast, came a boat. As she slowly approached, they made her out to be a sixty-foot, two-masted sharpie, traveling under her own power, with sails reefed. She was dirty white in color and was totally unlike any craft they had seen along the Gulf Coast.

Hendry, grease from head to foot, stood up astern, and watched her, with an expression of quiet interest. Mr. King and John were equally engrossed. What was it about this newcomer, that gave her marked individuality? They could not put it in words, yet they sensed it the moment she began to take definite form against the yellowing sky.

Now she was off their starboard and obviously making for the *Mae* on a direct line. When within a hundred feet, she stopped and a short, stockily-built man could be seen atop the cabin, waving his hands.

"Hello . . . Hello, there!" a voice sounded across the water.

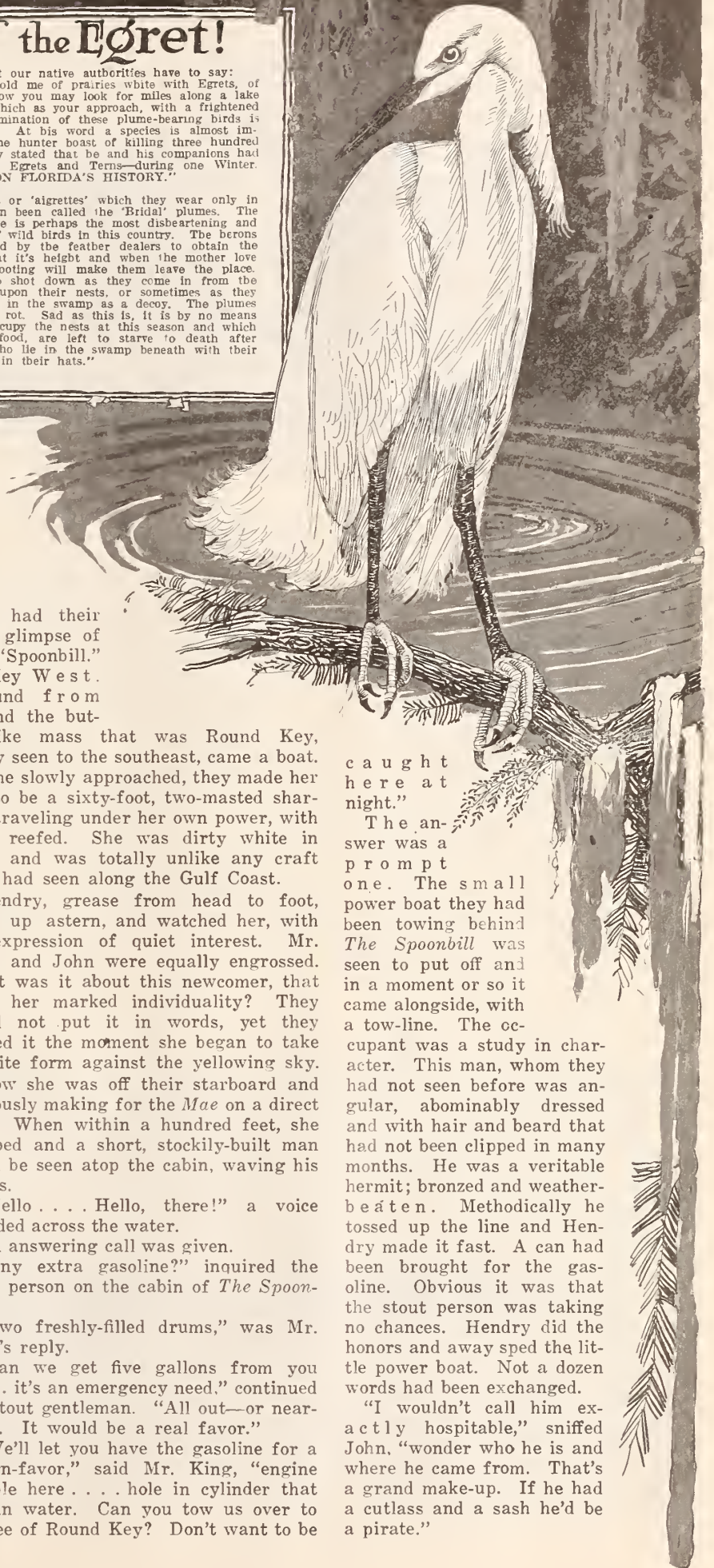
An answering call was given.

"Any extra gasoline?" inquired the stout person on the cabin of *The Spoonbill*.

"Two freshly-filled drums," was Mr. King's reply.

"Can we get five gallons from you . . . it's an emergency need," continued the stout gentleman. "All out—or nearly so. It would be a real favor."

"We'll let you have the gasoline for a return-favor," said Mr. King, "engine trouble here . . . hole in cylinder that lets in water. Can you tow us over to the lee of Round Key? Don't want to be



caught here at night."

The answer was a prompt one. The small power boat they had been towing behind *The Spoonbill* was seen to put off and in a moment or so it came alongside, with a tow-line. The occupant was a study in character. This man, whom they had not seen before was angular, abominably dressed and with hair and beard that had not been clipped in many months. He was a veritable hermit; bronzed and weather-beaten. Methodically he tossed up the line and Hendry made it fast. A can had been brought for the gasoline. Obvious it was that the stout person was taking no chances. Hendry did the honors and away sped the little power boat. Not a dozen words had been exchanged.

"I wouldn't call him exactly hospitable," sniffed John, "wonder who he is and where he came from. That's a grand make-up. If he had a cutlass and a sash he'd be a pirate."



Craw Fish! Well rather. And they make the common lobster of everyday commerce look like fiddlers. There is no sweeter meat in the Gulf Waters

Mr. King looked up but did not reply. Hendry was rubbing his chin and thinking in the usual Hendry way.

THUS it transpired that the *Mae* was towed under the lee of Round Key at sunset, where she dropped anchor in comparatively shallow water. Much to their surprise, the larger craft also anchored, not a hundred feet away. There was nothing to take them ashore, for the Key was merely a barren, uninhabited island of cabbage-palm, buttonwood and mangrove.

Hendry prepared a corking good supper of barracuda—the meat is dark and appetizing, and this, with plenty of coffee and biscuits made in the little “dutch oven” that was set astride the fire pot. And Hendry *could* make biscuit!

At eight o'clock a wonderful moon suddenly bobbed up from the upper fringe of the Big Cypress. It haloed water and land with a mystic, thrilling coat of silver.

“Suppose we go over and see our friends across the way,” suggested Mr. King, “they might have some mechanical solution for our leaking cylinder problem. It's worth a try.”

All three crawled into the launch and they were soon alongside the “mystery ship,” as John was inclined to call it. Only the lights in her double cabin were visible. But the noisy launch had brought some one on deck.

“Hello-o-o!” came that same drawing voice.

“Are visitors welcome?” inquired Mr. King, “we thought you might give us some advice . . . about the leaky cylinder.”

A momentary, reluctant pause, and then —

“Sure.”

Down all three stepped into the dimly lighted cabin—a large and roomy one, equipped for long cruises. John had time to note, with some surprise, as he descended the hatchway steps, that the outside top of that cabin was tacked solid

with coon skins. There were dozens of them, expertly arranged to dry.

And *such* a cabin!

Piles of skins of cat, coon and even deer. Cases filled with stuffed tropic birds. Shelves that groaned with queer bottles and sinister black tin boxes. One giant glass container held no less than fifty pounds of powdered arsenic. There was alum and bulbous wads of cotton and mechanical contrivances that looked oddly surgical in their sleek metal trays. Forward there were two dishevelled bunks. Of food there was a-plenty—cans and bags and boxes of it in endless array—a perfect treasure trove of supplies.

John was hypnotized by the odor and the contents of that cabin. He sensed the art of the taxidermist and the adventurous spirit of the true sportsman. Romance tinged the very air.

It soon became apparent that *The Spoonbill* could not assist them in an engine way. Flynt, who was the Captain and the Mate and the Chief Engineer and any number of other things about this strange boat accompanied Hendry to the *Mae* and had a look at the obstinate cylinder, but he shook his head emphatically. As they were leaving, the guide ran back to Mr. King's kit bag and extracted something which he put in his side pocket with extra care.

Upon their return, they found that John, Jr., had been made superlatively happy. Tipley, owner of *The Spoonbill*, had picked out a very beautiful pink spoonbill—a nearly perfect specimen—and presented it to the boy with his compliments, plus instructions in taxidermy, and a handy set of blow-pipes, drills with spiral ratchets, etc., for bird eggs.

IN the meanwhile, Mr. King, who had been a bit suspicious from the very first glimpse of that Round Key shanty, had listened, without asking questions. No one asks questions up these rivers and in these waters. It is one of the things that is distinctly *not* done.

Those who have been there will tell you that the speediest way to get yourself disliked, is to hang out a question mark. The reason is fairly obvious. The men of this locality are, as a rule, “wanted for something.” There are Key West renegades, and Florida crackers with a price on their heads and, here and there, a man of intelligence from some unknown place, who, for reasons best known to himself, wishes to be dead in the eyes of the world.

Mark Tipley belonged to the latter class. Mr. King had not talked with him ten minutes before he saw that the long beard and the shaggy growth of hair and the almost filthy clothes, were but the crust of a remarkable character. Tipley had a splendid command of language, was an interesting talker and had traveled far.

He allowed it to be understood that, with Flynt, a Key West fisherman and guide, he was spending a year along the gulf, collecting specimens, for purely scientific purposes. The appearance of the cabin certainly bore this out. It was like the quaint shop of a professional taxidermist. Mr. King made mental note of the fact that they were long on coon skins.

Tipley was an expert at skinning, curing and mounting. He had many specimens to illustrate his handiwork, and gave John an hour's careful talk on the subject. This, of course, quite won over the boy, who had a natural aptitude for taxidermy and was eager to take home many trophies of the trip to his mother and sister. The pink spoonbill, along with many others in the cabin, had been shot



They seemed to have run into a World of Sharks. Here and there, a passing cruiser would hoist captured monsters as proof that overboard bathing might not prove healthy sport



Even to experienced fishermen, the whip ray remains a constant marvel. It's markings are strangely beautiful and as may be seen, they grow to great size

up Nine-mile lake, so Tipley explained. The innumerable coons had been trapped by Captain Flynt, who went out each day along the Mangrove island beaches, and set them for the value of the pelts. "Worth more than otter," was Flynt's laconic observation. And again Mr. King wondered. No scientific society would be particularly anxious to receive a consignment of coon skins! The circumstances were strangely conflicting. And once Captain Flynt had said *The Spoonbill* came from Long Key. Tipley had mentioned Key West. Flynt, however, although he looked like Rip Van Winkle and had the manners of a pirate, knew everything there was to know about fishing and trapping, and Hendry mooned up to him in a jiffy, making him talk a perfect streak. John, too, was eager to hear some of these stories of Big Cypress adventure.

There against the cabin wall, was a splendid deer skin. It made Hendry's eyes glitter with envy. Captain Flynt said that he had shot it far up Turner River, beyond the cypress strands. No—there were no deer near the gulf.

It was remembered that the jug of rum received in exchange from Johnny Billy was under one of the seats in the launch, and Mr. King secured it, offering liberal cupsful to Tipley and the Captain. This act broke the last barriers of mysterious reserve. And as the surveyor told of his mission to survey ground in the Everglades and along Big Cypress, Tipley waxed eloquently talkative. Suspicion was allayed.

Nothing would do but that Flynt should serve some of his famous "Stingray Flipper." They had caught one that

morning and there was a pot of the thick, full-flavored chowderish mixture, ready to heat. It tasted bully good. Even John, who was not much for "queer" concoctions was forced to admit that "Flipper" from stingray was delicious.

It was ten o'clock when meal and stories were finished, and then Tipley made a chance remark that ended almost as Hendry had planned.

"If I give you a pair of scissors will you cut my hair?" asked the owner of *The Spoonbill*, "I can't stand this mop any longer. Saw myself in a mirror this morning and it gave me a shock. We look like a couple of mangroves hung with moss."

"Sure I'll act barber," assented Mr. King, "but why use scissors when there is something superlatively better. I have a pair of very professional clippers on the *Mae*—take them along for my beard. I'll get those and make a good job of it."

Hendry dipped into his pocket and produced the clippers.

He afterwards declared that he had intended using them on Captain Flynt, whether asked or not. John laughed until he cried, watching the operation. Tipley was given a pretty decent beard trim and hair cut, but when *The Spoonbill's* barber reached Flynt, he solemnly left a ridge of hair in the middle of the Captain's head similar to famous Zip, of the Barnum & Bailey circus. But Flynt seemed unaware of the trick that had been played upon him. When Mr. King finished, the floor of the cabin was one mass of hair—some of it red, for Tipley's beard was picturesquely auburn.

As they were preparing to leave, John did a little rummaging on his own account. He lifted one of the locker seats beneath the bunks, having detected a feathered foot protruding. In the shallow space there were bodies—gorgeous white, fluffy birds.

"Oh Gee!" was his sudden exclamation.

Tipley turned in a second. So did

Flynt. The latter made a running jump to the boy's side and yanked down the top of the locker. It was all accomplished before anyone quite realized the significance of the act.

"Better stay out of there!" warned Tipley, "I keep poisonous chemicals in that locker—and there are birds in it, too—birds that have been dead too long."

"I think you should keep your fingers out of things," reprimanded Mr. King, frowning at the boy.

"It's all right—don't mind," said Tipley, master of the situation, "but I didn't want him to have a finger burned off or an eye put out. Where are you fellows going tomorrow?"

"Turner River," said Mr. King.

"Why not try the Thickehunahatchee for deer?" suggested Tipley, whereat Captain Flint nodded, and Hendry grunted his approval, "it's Christmas! Make it a celebration. We will have some fresh venison and perhaps a turkey or two. That is real game country. The boy will get all the fishing he wants—and perhaps we shall secure something worthy of saving for his collection."

"We're on!" replied Mr. King, on the spur of the moment.

He accepted the invitation for more than one reason.

They cruised about for a half hour in the moonlight, for never was there fairer Christmas Eve than this. Not a breath of air stirring and the tufted cabbage-palms, water oaks, buttonwood and mulberry trees of Round Key sharply defined, against the starry sky. Hendry's pipe had an inviting, aromatic perfume and he was crooning to himself as he stood at the wheel. They went far up the shore and slowly back to the *Mae*. She rested snugly under the lee of the island, her one light shining a welcome.

And there beyond, ghostly in the moonlight, was that other boat, a dull, grey mass, unrelieved by so much as a glimmer.

John and his father were tucked away
(CONTINUED ON PAGE 140)



Fishermen like best to lazily cruise in and out and around the fantastic button-balls of islands that are characteristic of this coast. And every island has it's fringe of oysters, it's game and it's fishing nooks



LAKE ERIE HUT FISHING

ONE OF THE MOST ALLURING OF WINTER SPORTS WHICH INCIDENTALLY COMBINES RECREATION WITH FINANCIAL GAIN

By JEFFERSON WILLIAMSON

FISHING in huts far out on the midwinter ice of Lake Erie is a novelty among pastimes that is growing rapidly in popularity. For several years this style of fishing was carried on purely as a commercial proposition, but such is no longer the case. Piscatorially inclined business and professional men of Cleveland, Toledo, Detroit and other cities have found it to be one of the most alluring of sports and are invading the field in increasing numbers each winter.

The originator of hut fishing is said to have been Frank Shirley, a boatbuilder and skipper residing in Lakeside, Ohio, a short distance west of Cleveland. He is accredited with being the father of "Piketown," which is probably the largest of the hut fishing colonies on the southern side of Lake Erie. Last winter "Piketown" consisted of some 300 huts, about eighty percent of which were used by commercial fishermen and the rest by men who liked the sport and did not care a rap about the money there was in it. And last year, incidentally, there was extraordinarily big money in it—net profits ranging anywhere from \$25 to \$75 a day. At 15 and 16 cents a pound, undressed, the catch has to be considerable to total \$75, as a simple process of mathematics easily demonstrates. The prices were higher last winter due to the war, with its resultant conservation of meats, and this provided an eager market for all the fish that could be caught.

THE favorite hut fishing grounds are at Monroe Piers, Mich., a few miles south of Detroit, at Toledo Beach, about eight miles south of Monroe Piers, and the shoals in the vicinity of Put-in-Bay. But the fishing is done more or less almost anywhere on the southern side of the lake—Ballast Island, Starve Island, Middle Bass, Rattlesnake, Green

Island, these are but a few of the haunts of the fishermen.

The fishermen go out anywhere from half a mile to more than two miles off shore. You will find venturesome ones out two and a half miles on the steamer lane in what is known as the South Passage, where the water is thirty feet deep or more. But as a rule, the average fisherman is content to remain closer inshore. The fishing is satisfying there and the risks are fewer.

The fishing generally begins in January, after the low December temperatures have hardened the ice to a thickness of from six to eighteen inches and continues until the end of February or as late as the middle of March. It all depends on the condition of the ice, and that, in turn, of course is dependent on the weather.

The shanties, or huts, in which the fishing is done generally are six feet long, four wide and seven high. They are made of the lightest of materials to enhance their portability. On a two-by-one-inch wooden framework canvas is tacked, sometimes burlap bags, sometimes tin sheeting. But the ideal covering is canvas. There is a door, of

course, and a small window, but the window is kept heavily blinded while the fishing is being done. The fisherman uses it only when he wants to peer out occasionally for one reason or another. But while he is fishing he must have darkness, absolute darkness. In this darkness the fisherman sits on a stool and peers down into the hole he has cut through the ice. This hole should be about 15 inches wide and 24 to 30 inches long, chipped away slantingly underneath so the fisherman can see the approach of the fish before it reaches the hole proper. It is so clear in the darkness that the sand bottom is visible and the antics of the cannibalistic pike as they grab

for the decoy can be observed clearly in every detail. Any moving object can be seen clearly in the water. The principle is the same as that of the Catalina Island glass bottomed boats.

There is one other requisite in the construction of the hut. Its canvas roof must have a chimney, for ventilation, a chimney say about a foot high, with a raised hood. This ventilator is an absolute necessity as will be seen farther on.

When the fisherman has located his hut, the first thing he does is to bed its base with snow. This helps to anchor it, assures its stability against the forty-mile breezes that are quite common on Lake Erie in midwinter. It also adds to the interior warmth of the hut. But warmth is an easy problem, for each hut is provided with a diminutive stove, usually oil burners, which make the hut so cozy that the fisherman perspires in his shirt sleeves.

In addition to bedding snow around the base of the hut, the fisherman usually takes extra precautions to see that his structure will "stay where it is put," by anchoring it with light ropes and wooden pegs driven into the ice.



The huts are made of the lightest materials to enhance their portability

THE huts are hauled to the scene by horse and cart, or by auto delivery wagon, and they are moved from one location to another on the ice by the same means, for it is seldom that a fisherman remains a great length of time on any one spot. As long as the fish keep running he remains, but when the run seems to have stopped he goes to another position. The habits of the fish regulate the habits of the fishermen.

The fishing is done both by spears, or gigs, and by hook and line, short drop lines or handlines. Pike are speared; pickerel, yellow-ringed perch and sunfish take the line, with live or frozen minnows as the bait. Spearing and hooking may be done simultaneously through the same hole. The perch and sunfish run in schools. One may catch a bushel of them in a very short time, and then again the catch may be only a few in a day. Their weight ranges from one to four pounds. But invariably the bulk of the catch is perch and sunfish, despite the steady regularity with which the fisherman may be able to plant his spearpoint between the ribs of the voracious pike.

Pike, perch and sunfish are caught at short distances out from the shore; the fisherman must go farther out to get pickerel, out to 28 or 30 feet of water. Quite often bass are caught, too, but these must be thrown back into the water because it is illegal to catch them. The bass generally are found in deep water, usually where there is a current.

IT is the pike fishing that furnishes the greatest amount of excitement and requires the greatest amount of skill. The fisherman uses wooden minnows, which he prefers to whittle out himself. The shop minnow seldom, if ever, suits him. There are old-timers in the Put-in Bay district who spend many hours of their spare time in the fall and summer whittling out these minnows and experimenting with them in a tub of water, for the minnow must be made to do circus stunts, to dance like a jack-on-a-

stick at the end of a piece of cord. When the whittling is completed, the minnows are sandpapered, a bit here, a bit there until they reach a state of perfection satisfactory to the fisherman. The minnows one fisherman cuts out for himself never would do for another fisherman. Each has individual whims about the manner in which the decoy should behave in the water. There is no swapping of products, no dependency on one another except that one man might listen to another's suggestions, then ignore them or accept them as he saw fit.

When the whittling and sandpapering is completed the minnows are painted a shade resembling a live fish, or some dark color. The minnows are about six inches long. Each fisherman generally has a collection of them—the one he used last summer, the one he made this summer and others he has had for a varying number of years. The spirit of improvement on one's own handiwork is a constant stimulus to steady annual output. The casual fisherman, out only for the sport of the thing, gets his decoys either from these hardy native sons or buys them in a sporting goods store, and all things considered, gets along just as well with them, I dare say. At least, he is generally satisfied with the results.

The decoy minnow must be kept on the move. Attaching it to a cord the fisherman drops it into the water to a depth of about two feet. There he keeps it darting around in a circle. And he poises his spear, which is of the five-tined type. The pike gets inquisitive about it. At lightning speed he darts forward and strikes the minnow, and goes by. A minute or two later he comes back slowly, to find out what sort of strange animal he has encountered. He noses his way slowly. Spear poised, the fisherman nails him. The aim is generally amidships, so that if the aim is poor, or the pike starts his getaway for some reason earlier than usual, the spear has a moment's more time in which to impale him. The barbs of the tines

hook under his bones and hold fast. His doom is sealed.

Some of the fishermen put a three-gang hook on the minnows to bother the pike a moment until they have time to spear him, for the spearing must be done with tremendous rapidity. But the old, practised fisherman wants none of the three-gang hook.

LAST winter, the fishermen said, was the best in the history of the sport.

On one day, with the "wind from the west when fish bite best," 200 pike were taken in each of two huts near Lakeside, and big catches were general throughout the season. Five pounders were not uncommon and very few of the pike weighed less than two pounds. The biggest pike of the season weighed six and one-half pounds and measured four feet, a voracious fisherman asserts.

It is a poor fisherman who cannot get at least twenty-five pike a day. Commercial fishermen grew rich on the kill last winter. Their market was steady and certain, and in many cases they did not even have to take the trouble to deliver their catches. Automobiles running out over the ice constantly took up all the supply they had and paid them spot cash if demanded. These profits lured many newcomers to the field, made many commercial fishermen out of men who combined business with pleasure—men from the little towns and cities along the lake, postmasters, storekeepers, lawyers, doctors, all sorts and conditions of men who tried their luck for two or three days at a stretch or two or three weeks, whenever they could spare the time from their regular pursuits.

The cost of the hut, spear, lines and all other requisites ranges between \$30 and \$40, and are easily obtainable, particularly in the villages in the Put-in Bay neighborhood.

Among these appurtenances not thus far mentioned is a small scoop net with which to pick up the scum ice that may have been ground away somewhere, or

(CONTINUED ON PAGE 140)



The hut in the foreground is one of the best types, warm, and comfortable in the coldest weather

MAKING YOUR OWN BASS BUGS

A PLEASANT OCCUPATION FOR THE WINTER EVENINGS THAT LINKS MEMORIES OF LAST YEAR WITH ANTICIPATIONS OF THE COMING SEASON

By NOA SPEARS

HAVING hinted quite broadly in a previous article on bass fishing with homemade floating flies that I would not be averse to revealing the mysteries of the construction thereof, the editor has been unkind enough to take advantage of my weak moment—but I trust the result may help some brother of the rod to while away his winter evenings, while the wife knits another sweater for the boys who are still over there and the kids are roasting apples and popping corn before the fire.

The accompanying illustrations show as best I can the various steps in the making, but pictures, however good, never explain, at least to me, just how each step was taken and many essential points cannot be illustrated.

The first step should be to prepare the colored shellacs with which to paint the bodies, which are of cork and do not take oil paints and varnish well and dry too slowly.

Get half a pint of white shellac dissolved in alcohol and one ounce each of yellow, red, white and brown dry paint colors, and a small amount of the dry powdered aluminum. Then take a one-ounce clear glass stoppered bottle for each color you intend to make and pour them half full of the shellac. Add color and shake well until all the color is well mixed with the shellac. Enough color should be used to give good covering quality, otherwise too many coats are required. Light colors require more of the pigment than darker colors. If you get it too thick a little alcohol will thin the mixture and should they evaporate alcohol will restore them perfectly. A medium heavy body is easier to apply than one too thin as it runs off and requires more coats to produce strong colors.

The yellow and red may be blended in another bottle to produce a good, deep orange, and other similar mixtures can be produced by experimenting. Always keep the glass stoppers in the bottles tight to prevent evaporation.

A small, cheap bristle brush, say ½-inch in diameter, will serve to apply the shellacs, as a good brush is soon stiffened anyhow and the painting is rather crude because shellac doesn't "work" like paint. Dipping is good if your bottles have wide enough mouths and a hat pin serves well to carry the bodies while being dipped.

NEXT get a small flat-nose plier, a pair of straight manicure scissors as delicate as possible, a dozen sneck hooks, size 3/0 or 2/0 as you prefer, a couple of dozen No. 3 extra long corks as free from pores and defects as possible, a couple of sheets each of 0 and 00 sandpaper, and 2 spools of waxed

dental floss. The sneck hooks may be changed to some other style if not obtainable, but be sure to select a hook with a large eye, rather stiff shank, yet not too heavy, and of best quality. Carlisle's are too light and springy, O'Shaugh-

paper works best on the materials.

Next cut small notches about ⅛-inch deep across belly to simulate the natural segments on a real bug, and a notch around the entire body at what would be the neck of the bug, so your body then



A photograph illustrating the successive steps in making bass bugs

nessy's are too blunt and heavy, while Pennell's have a turned down eye which spoils them to loop the leader through, even if the eye were big enough.

With the pliers bend the offset out of the sneck hooks as a straight set hook works best on these flies. Take one of the corks and with a sharp pocket knife trim off the edge of the larger end, cut a slice off one side to form the belly, then trim the smaller end so the cork appears as in illustration No. 2. Smooth up the entire cork now, so it will finish nicely, using whichever grade of sand-

looks like illustration No. 3.

Stretch across your desk, or elsewhere out of the way, a piece of string to hang the bodies on while they are drying after each coat of enameling.

Take some common pins and bend their heads over so they make hooks or hangers—using the pliers for this. These with the bodies impaled upon the points will hang nicely and the bent pins also make a handle to use while applying the shellacs or enamels. Impale the bodies at the small end so the excess shellac will gravitate to the large end which is

the head, as this end gets the brunt of all weeds, brush and other wearing friction when in use and the enamels wear off first on the head, unless made thicker on that part of the body.

AFTER as many bodies are made and ready for painting as you want, insert the pin hangers and apply two or three coats of colors as you choose, allowing each coat to dry well, especially the last.

While the coats are drying prepare the hooks by tying on the "tails." For this I use the long hair from the tails

When you have selected a small bunch of hair, gather its outer ends in a neat bundle so you can grasp it between thumb and forefinger, cut it away close to the skin, work out all the short hairs and fur by blowing them away while holding the hairs by their outer ends, then tie on as hereafter described.

When the cork bodies are well dried a hole must be made through endwise, to pass the hook through. This hole should be started at the large end and below the center, so the finished fly will have more weight below than above and consequently float with back up and hook

together at the neck and near the tail after the hook with tail tied on has been placed, but this is more trouble and less neat than the bored hole.

The hole should be enlarged slightly at the tail end, so the slight bundle made in tying the tail hairs to hook will find room without stretching or splitting the cork. This back end should be split out about 1/4-inch after the hole is bored, using the manicure scissors, and leaving the body appearing like illustrations Nos. 5 and 6, on the opposite page.

TYING the tails on hooks is done best as follows: Cut off about 12 inches of the waxed dental floss, and tie a loop that will, when drawn tight, be a knot, leaving one end long and one short.

Lay this loop at hand and select and cut off the hair to be used. Remove short hairs and place around hook, so the loop may then be slipped over hook shank and hairs and drawn tight. Wrap the hair tightly on shank for half an inch, as smoothly as possible and tieing in hard knot. Illustration No. 7 shows this completed.

Next apply shellac to the wrapped portion and insert eye of hook in tail end of body and push gently through until the tied portion is inside of body and eye of hook is protruding from head, as shown in figure 8. The point of hook should be turned downward and a coat of shellac added to help keep the hook in position.

Let this coat of shellac dry before tying on the wings.

When ready to add the wings cut the grooves or notches on the side of neck so the cork is again exposed, as the flare of the wings depends on your drawing the thread deep into these notches and the enamel prevents the cork readily giving to the pressure.

Cut off about 18 inches of the waxed dental floss and tie it tightly around the neck in the groove, leaving one end long, and making the knot either on back or belly side. Select and cut off hair for each wing and have them paired as to length, color, mixture, etc. Place hair in position on one side of fly, pass the long end of thread around neck groove over wing and tie tight. Then place other wing and with long end wrap six or eight turns around the neck groove, drawing tight on first turns till desired flare is obtained. Tie in hard knot and trim off ends of thread and hair close, using the manicure scissors. Shellac the wrapping and head, several coats, using a different color from the body if you wish. I use a light color or white on the heads, as it aids in watching the fly as you retrieve it when fishing.

As a finishing touch go over the whole body with some of the uncolored shellac as it adds brilliancy and gloss and is more water-proof than those containing colors.

Tying the wings on will be the hardest at first, but a few trials will make your fingers more deft, and teach you how to get the set to the wings that makes

(CONTINUED ON PAGE 136)



Different types of bass bugs; several have seen active service

of deer, squirrel, coons, fox or skunks, or any other that is long and wiry. Quite a range of color may thus be had in natural hair and the selection or blending is entirely optional with you.

The best way to keep the hair in shape for handling is to leave it on the skin, either dried or tanned and then select and cut off each time with the manicure scissors just the amount you wish to use. This keeps the end even in a natural way and prevents getting the colors all jumbled up.

down. The hole should emerge near the small end in the belly portion.

The best way I have ever found to make this hole is to bore it with a dentist's drill using a bur size Nos. 6 or 7, which is about 1/16-inch in diameter, but if you can't find a dentist who will accommodate you, a hot wire about the size of a coarse hairpin would burn the hole neat and smooth. If you prefer the cork body can be cut in half endwise before enameling, a groove made for the hook and the two halves tied

FOREST AND STREAM

FORTY-EIGHTH YEAR



FOUNDERS OF THE AUDUBON SOCIETY

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Nine East Fortieth Street, New York City

THE OBJECT OF THIS JOURNAL WILL BE TO studiously promote a healthful interest in outdoor recreation, and a refined taste for natural objects.
 August 14, 1873.

SAVE NEW JERSEY'S PHEASANTS!

THE following communication has been received from the American Game Protective Association:

"Disturbing rumors are afloat with regard to an attempt to remove protection from ringneck hen pheasants in New Jersey. The five-year closed season on these birds expires this year. It should be, by all means, renewed. If it is not, years of devoted and successful work on the part of Mr. Duncan Dunn, superintendent of the New Jersey state game farm, will go for naught. New York has been producing more ringnecks than New Jersey, as it has three state farms, and its breeding operations have covered a longer period of years, yet a proposal to remove the protection afforded the female of the species would find the sportsmen of that state in arms instantler.

Here is an opportunity for the newly-formed New Jersey State Sportsmen's Association. It is also taken for granted that the Board of Game Commissioners will act vigorously in this matter. Every sportsman in New Jersey should file his protest at once, both with the board and his representative in the legislature, too. It will take only about two years to make the ringneck a memory in New Jersey, if protection is removed from the hen. To take such action when years of intelligent stocking are beginning to bear fruit would be suicidal. New Jersey sportsmen should arise in their might and protest."

If it is the desire of the sportsmen of New Jersey further to propagate the ringneck pheasant it is highly important that the protection of the hen bird be continued, but while on this subject it should be stated that the sportsmen of this country have never been and are not at present united on the desirability of introducing foreign game birds into American coverts. Many experienced and able students of game conservation believe that all of our efforts and money should be devoted to the propaga-

tion of native birds, and many believe that the scarcity of native birds in sections of the country where the ringneck pheasants have been introduced is due largely to the carnivorous and predatory habits of these wily Orientals.

A SPORTSMEN'S MEMORIAL TO A GREAT LEADER

THE National Association of Audubon Societies and its affiliated State Organizations, Bird Societies and Sportsmen's Clubs, throughout the country, will at once begin the work of providing for the ultimate erection of a notable work of art to be known as the Roosevelt Memorial Bird Fountain.

There is not the slightest doubt, but what the lovers of out-of-door life will combine to support this tribute to our great fallen leader. Colonel Roosevelt was the most forceful champion of wild life conservation the world has ever produced. He exposed the school of sham nature writers and drove them to cover under the stinging appellation of nature fakers. He encouraged by example, by influence and by contributions the work of scientific natural history study. As President he established the principle of the United States Bird Reservations and by executive order created thirty-eight of these federal bird sanctuaries. As a hunter he taught the world lessons in straight, clean sportsmanship.

T. Gilbert Pearson, the Secretary of the Audubon Society, who originated the idea, has been given the approval of Mrs. Roosevelt.

It is understood that the most eminent sculptors in America will present plans for the fountain which when completed will be not only the most unique but one of the handsomest works of out-of-door art in the world. Its location will be decided upon later. A National Committee of nature lovers and sportsmen has been formed to advance the project. Suggestions and subscriptions should be sent to Mr. Pearson at the offices of the Association, 1974 Broadway, New York City.

TO DOMESTICATE THE MUSK-OX

THE return of Mr. Stefansson from the far north, where he has done such splendid work in exploration and made so many discoveries of new lands and new people, is a matter for congratulation, not only to the Canadian Government that sent him out, but to all of us in the United States. What Mr. Stefansson has done, the great distances that he has traveled, the new islands and new animals that he has discovered have been told of briefly in the daily newspapers and need not be repeated here. A matter of great interest to naturalists and hunters alike is the fact that in Isachsen Land he discovered a race of caribou, hardly more than half the size of the Barren Ground caribou of the Coppermine River country, which in its turn is much smaller than the animal of the woodlands, the one best known to American sportsmen.

A matter of still wider interest is Mr. Stefansson's announcement of a belief that the musk-ox may be domesticated, and may be reintroduced in portions of Northern Alaska. It is well understood by zoologists that at a point not very distant in time—perhaps within a hundred years—the musk-ox was found in some numbers on the west side of the Mackenzie River and Dr. R. M. Anderson, we believe, found among the Esquimaux living in Alaska a musk-ox robe still in use, which was reported to have been

taken in Alaska by the father of the man who owned it and who sold it to Dr. Anderson.

Mr. Stefansson is reported to have declared that the musk-ox is easily handled, that it can be driven by men on foot, and he believes that it would be practicable to round up a herd of musk-oxen in the Barren Grounds and slowly and quietly drive them westward to a permanent range in Alaska.

It is understood that one of the large owners of reindeer in Alaska purposes to try to arrange with the Canadian Government to exchange a large number of reindeer for a much smaller number of wild musk-oxen. Reindeer in Alaska have thriven wonderfully well and have greatly increased in numbers. There is no evident reason why they should not do as well to the east of the boundary lines as they have to the west, and if they do flourish in Canada they will provide to the people of that far northern country a domestic food animal of great value. So too if the musk-ox can be taken into Alaska and held there under domestication there is good reason to think that it will do well, will increase in numbers and will add to the resources of northern Alaska an important item of subsistence and a valuable fur.

The matter is one of great interest. While there is perhaps no reason to suppose that the musk-ox in British America is likely immediately to become extinct, it is still true that its range is constantly contracting. It is an unsuspecting animal and easily killed; and, notwithstanding the effort made by the Canadian Government to protect it, its future is still uncertain. The experiment of domesticating it suggests great possibilities.

WILD ANIMALS OF NORTH AMERICA

THE National Geographic Society has compiled in book form two very interesting and authoritative articles that appeared in separate numbers of the *National Geographic Magazine* concerning the mammals of North America. Mr. Edward W. Nelson, chief of the United States Biological Survey, has written introductory articles on both the larger and smaller mammals and a concise and accurate account of the habits and life histories of each species. Mr. Nelson is eminently fitted for the writing of just such a work as he has spent a life-time in close study both in the field and in the laboratory and is thoroughly conversant with his subject. The text is supplemented by 64 pages of illustrations in color from original paintings by that inimitable artist-naturalist, Louis Agassiz Fuertes, which in itself lends distinction and credit to the work. It also contains numerous track sketches by Ernest Thompson Seton, which are invaluable to the close student of animal life. The whole makes a very important book of reference and one that essentially belongs in the library of every sportsman and lover of wild life. It is available only through the offices of the National Geographic Society, Washington, D. C. We take great pleasure in bringing this book to the attention of our readers and heartily congratulate the National Geographic Society on the manner in which it has treated such an important subject. It is in line with the high standard of work produced by that society which has added so greatly to the increase and diffusion of geographic knowledge throughout the world—treating the most comprehensive subjects in a manner that even a child can understand and with a charm and accuracy that stimulates the interest of the deepest student.

ON BEHALF OF THE DOG

WHEN hostilities ceased some 18,000 dogs were on the western front, fighting to make the world unsafe for dachshunds.

The Dog Owners' Association of England, therefore, says the *Thrift Magazine*, is planning to have diplomas awarded to dogs that distinguished themselves as good soldiers during the war.

This is a movement worthy of commendation for there are many things to be said in behalf of the dog. He is brave, honest and loyal. He is never a coward, a cheater or a liar. Even in the height of flea season he is a consistent optimist, not only looking on the bright side of life at all times, but possessing a happy sense of humor.

He can grin, smile or laugh. He is a good fellow. He knows how to take a joke. You can hit him with your fist hard enough to jar his back teeth loose, and if you do it with a smile he will respond by laughing heartily with his tail.

The dog is a real gentleman because he is equally at home in any company. It does not embarrass him even when thrown in the presence of persons he has never met before in a social way. With equal adaptability, he can romp with the children, go hunting with the big boys, or sit quietly at home with the old folks and help them mediate in their lonely hours.

If born in poverty and obscurity he will never desert those he loves and cherishes for gayer scenes or the blandishments of more affluent associates. Even the blind and helpless beggar, shivering on a windswept corner, knows his dog would not forsake him if all the millionaires in the world went parading by with their arms fairly loaded with dog biscuits, raw bones and alley cats.

It is pleasing to learn that the soldier dog is going to get a diploma. He will accept it with modesty and gratitude depicted in every wag of his tail.

THE HILLS

THE hills have the power of ruling the mind. They have influenced men and civilizations from generation to generation. They effect the thought; overawing us with power and appealing to our reverence. The higher we climb the everlasting hills, breathing their bracing air and enjoying the panorama of beauty beneath and beyond, the younger and stronger we feel, and the nearer to God and to heaven. There is that message in the mountain gloom and mountain glory which controls the spirit that comes under its influence.

It will not be long now ere we bid farewell to the office, the shop, or the study. The time of exodus is approaching. The call of the hills cannot be denied. They call, and we must away! There is an affinity between souls and hills. They represent heights we ought to attain for man was made for the highlands.

The hills call unto us to look away from all those things which oppress and blind us, and as we lift up our eyes to their purple summits, their beauty and brooding strength suggest a power and a peace, without which, life is as barren as the ribs of death. The hills carry us to the clouds; the clouds to the azure spaces of the skies; and the skies beyond to the stars, until our vision climbs the altar-stairs which,

“Slope through darkness up to God.”



NOTES ON LONG ISLAND SHORE BIRDS

SOME AUTHENTIC INFORMATION ON THE HABITS
OF THESE RESTLESS DENIZENS OF MARSH AND MIRE

BY J. T. NICHOLS

THE KRIEKER OR GRASS SNIPE

THE Krieker is a medium sized or small shore bird, formerly more abundant than at present, though still found on our meadows in spring and fall in moderate numbers. It may be recognized by its dark, heavily streaked breast, contrasted with its white belly. It alights on mud flats or among the marsh grass and the members of a flock scatter and move about rather sluggishly on the ground. Its notes are husky, only one of them approaching a whistle, *kerr*. A *kerr* note resembles the common flight call of the Semipalmated Oxeye, but is harsher, and a short *chep*, *chep* is sometimes heard when the birds are in flocks of their own kind. The Krieker does not respond well to decoys. Individuals are frequently found in large flocks of the smaller Oxeyes, or associated with larger birds.

The book name for this species is Pectoral Sandpiper, an allusion to the habit of the male during its breeding season in the far north, of inflating its throat and breast like a pouter pigeon. In most shore birds, the females are materially larger than the males, but in this one the reverse is true, the males being larger.

THE Natural History Department has been for nearly half a century a clearing-house for information of interest to all. Our readers are invited to send any questions that come under the head of this department to Robert Cushman Murphy, in care of FOREST AND STREAM. Mr. Murphy, who is Curator of the Department of Natural Science in the Brooklyn Museum, will answer through these columns.—[EDITORS.]

STILT SANDPIPER OR GREEN-LEG

HOW well I remember an August morning several years ago, when two of us started early enough before dawn to cross the bay and have our snipe decoys set by sunrise along the marshes behind the beach doons. Ordinarily this meant a prolonged wait for passing shore-birds in our blind of bushes, but on this day, even before the last decoy was placed, the flocks began to come in. In size, flight, and notes, the birds resembled so closely the Lesser Yellowleg, ordinarily the commonest

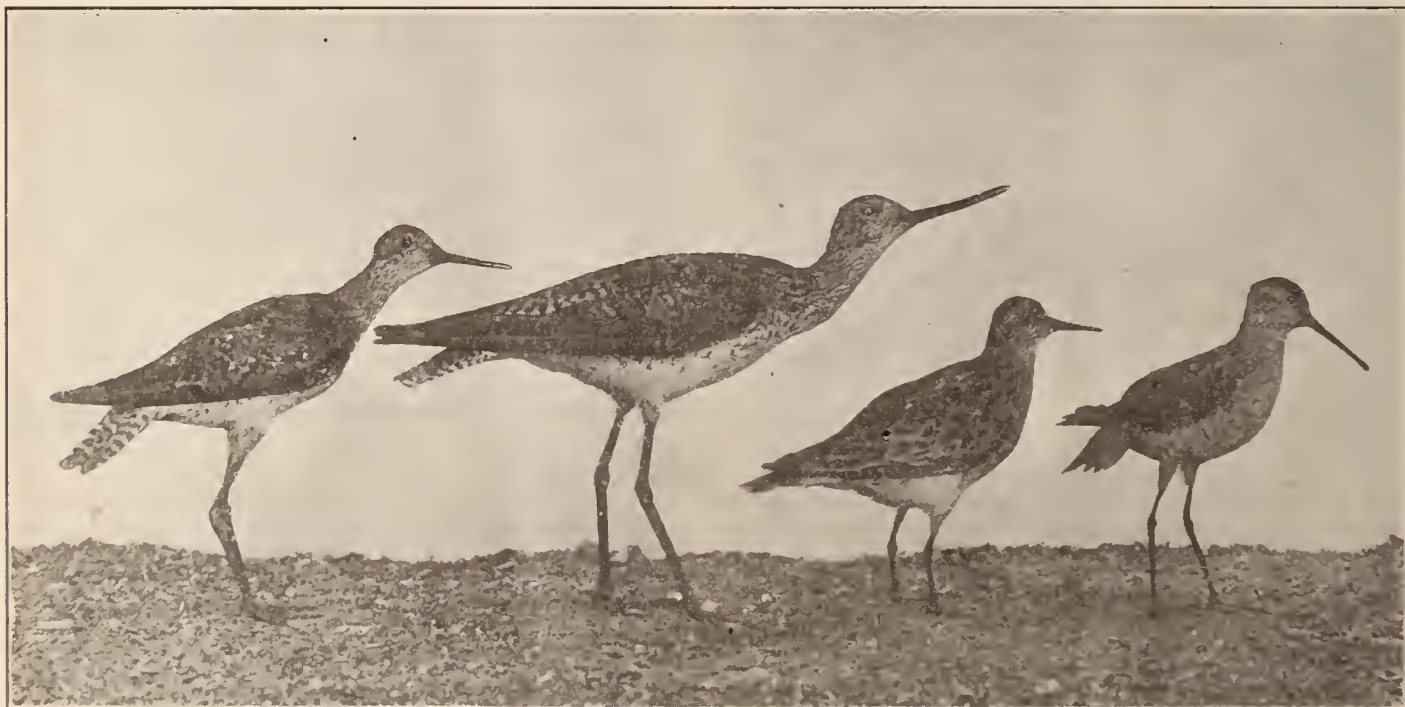
large shore-bird along these marshes, that it was not until the first of them were in our hands that we realized we were dealing with another species, the Stilt Sandpiper. They came so rapidly that my companion's bag-limit would have been shortly reached had he not ceased shooting them to signal out the few larger birds which were traveling in their company.

This species is ordinarily uncommon, a few individuals only being found each year, often in flocks of the Lesser Yellowleg, but occasionally, for no known reason, it occurs in large numbers. It has a somewhat longer bill, shorter legs and darker colors than the Yellowleg, is a little smaller, and its legs are olive green instead of bright yellow. Its note resembles very closely the "whew" or "whew whew" of the other species, but is hoarser.

GREATER AND LESSER YELLOWLEGS

THE two Yellowlegs are our commonest large shore-birds, tall, slender species, whose long yellow legs and white tails, flashing conspicuously whenever they alight or take wing, will serve to differentiate them from the others.

(CONTINUED ON PAGE 134)



From mounted specimens. Courtesy of the American Museum of Natural History.

Lesser Yellowleg, Greater Yellowleg, Krieker or Pectoral Sandpiper, and Stilt Sandpiper

A LESSON IN FAITHFULNESS

THE TALE OF A MAN AND HIS DOG ON THE LONELY, WINDSWEPT MARSHES OF THE CHESAPEAKE WHERE WILDFOWL FILL THE AIR WITH SWISH OF WINGS

By A. A. HUTTON

THE December moon, nearly full, and well risen, was pouring a flood of silver light down over the old city of Annapolis. A light snow, which had fallen the day before, lay glistening on the roofs, along walls and in scant soiled ridges in the streets. The air was sharp and frosty, and off in the west there lingered a faint glow against which the bare branches of the trees showed in a lacy fret-work.

Two men carrying guns and accompanied by a dog, were walking briskly, along Duke of Gloucester street toward the bridge over Spa creek where the street terminates. They were bound for the shore of the bay where they hoped to find wild geese, the marshes along the Chesapeake being the haunt of many wildfowl at this season. These men had a hut on the shore a mile or two from the city, where they could have shelter at times while waiting for a chance at the birds, and this hut was their immediate destination.

The man who owned the dog was Ned Hunter, his companion's name was Jim Ryerson, and the dog himself was a splendid specimen of a special breed known as "Chesapeake Bay dogs," a large water-spaniel, bred expressly for this kind of sport. This dog, Tony by name, was the size and build of the ordinary Newfoundland, not over-large, and of a perfect dead grass color from the tip of his nose to the end of his tail.

"We ought to be having good sport tonight," remarked Jim as they struck the bridge. "It's as clear as a bell."

"Yes," replied Hunter, glancing up and down the wide creek, "but there's lots of broken ice. A man on the wharf—came in a little while ago with Tibbs' oyster pungy—says the bay's full of it. However, we'll get 'em if we find 'em, won't we, Tony boy?"

Tony cocked an intelligent eye at his master and ambled along with a cheerful air.

"That dog has never failed me yet," continued Ned; "he always brings in a shot bird."

"They do get lost sometimes, though, where no dog can find 'em," said Jim.

"Well, of course, one might drop too far out for him to see, but if Tony gets a bird he never lets go. I've known him to



A Chesapeake Bay dog in action

stay a half-hour out in broken ice, but he always brings in the bird if it's *there*."

WITH such conversation they beguiled the way and were soon leaving the suburb on the opposite bank of the creek, and striking out into the open country. Here there was more snow, crunching crisply underfoot, clinging in light masses to pine and cedar, and piled delicately on every weed and spray. Over all the magic radiance of moonlight. Here, the shadows sharp and dark upon the snow, beyond, along field and wood, by hollow and hillside, soft mysterious gray and purple, and afar, growing clearer as they neared it, a line of silver that meant the bay. Soon the cabin they were bound for stood in full view, somewhat off the road, the path leading to it curving on gently down a slope to the water's edge. Over to the left lay a marsh, on the right the shore line ended abruptly in irregular, steep bluffs.

"Here we are," remarked Jim, and presently they were inside the cabin which consisted of a single room with one window and a fireplace; and contained a few pieces of rough furniture. Hunter struck a match and lighted a lantern which he took down from a nail, placing it on the table, and beside it several parcels which he took from his coat pockets.

"There," he said, "that will do for later on when we have a fire. Now we are ready for action."

Extinguishing the lantern they stepped out into the moonlight again, and took the path down the slope. Skirting the marsh they proceeded cautiously and some ten minutes later caught sight of birds at a little distance.

"They're getting up," said Jim in a whisper, raising his gun. Both men fired at the same moment and three birds fell

as the flock rose with a mighty whirr and were out of range before Jim's gun cracked again, vainly.

"Bring 'em in, Tony," said Ned and the dog sprang out on the frozen marsh, returning presently, dragging a great bird. He laid it at his master's feet and plunged back again among the reeds.

"Swan," said Ned, picking up the bird. "A whopper, isn't he? Here comes Tony with another."

"The third one was only wounded," said Jim; "there it is out on the ice fluttering along. We'll lose that one, I reckon."

"Not much," replied Ned. "The dog will get it. Here, Tony, go bring it in."

THE dog just depositing the second bird, glanced up at his master, then following the direction of his hand toward the water, saw the fluttering bird and was off like a shot. The bird was on the broken ice in-shore, but as the dog approached fluttered on and on, the dog pursuing. The two men walked on down to the little strip of beach which ended on the right at the foot of a bluff. Here they stood intently watching the chase, which drew farther and farther away until both dog and bird were finally lost sight of behind the bluff. Up and down they walked, talking while they waited. Twenty minutes passed; a half-hour.

"Where do you s'pose he is?" asked Jim at length. "Think he's made shore below there?"

"He can't make it for about six miles down," replied Hunter. "I know this shore like my own back yard, and there isn't a landing place except just this side the Ridge. He'll come back this way if the current and wind aren't too strong for him. The wind's getting up."

He buttoned his coat up close to his throat, stuck his hands into his pockets, and again they tramped up and down. Another half-hour passed, there was no sign of the dog and Ryerson was growing steadily more disgruntled.

"Why the devil didn't he give it up and come back?" he grumbled. "Then we could have followed the birds up the marsh and had some sport. The chances are now he'll never make shore. He'll get swamped

(CONTINUED ON PAGE 143)



A MEMORY AID

I FOUND these verses in an English fishing paper and though they are by the well-known American angler, Fred Mather, they are unknown to me. Because of the information which they contain in an easily remembered form I am sending them to you.

"The little-mouth has little scales,
There's red in his handsome eye,
The scales extend on his vertical fins,
And his forehead is round and high.

"His forehead is round and high, my boys,
And he sleeps the winter through;
He likes the rocks in the summer time—
Micropterus dolomieu.

"The big-mouth has the biggest scales,
And a pit scooped in his head;
His mouth is cut beyond his eye,
In which is nary a red.

"In his eye is nary a red, my boys,
But keen and well he sees;
He has a dark stripe on his side—
Micropterus salmoides."

L. H. C., Maine.

A NEW FLY "DOPE"

LAST summer while in camp I ran out of citronella, which I have always used as a fly "dope." The black flies were very bad and I tried as a substitute some camphorated oil which was in my medicine kit. It worked very well and the odor would be more acceptable to some people than that of citronella. Personally, I like citronella but some dislike the odor very much. I told of my discovery to a friend and he said that a camphor repellent is often used in other countries but that the oil is mixed with a little glycerine oil to make it thinner and more easily applied.

C. R. BLOUNT, Portland, Me.

CLOTHING FOR WINTER SPORTS

MANY people like to get outdoors and enjoy the bracing air of winter. Unless one is properly clothed there is no pleasure in winter sports. I think there is no sadder sight than to see a man or woman trying to enjoy skiing or snowshoeing, clad in garments that are insufficient protection against the cold. That is my reason for writing these hints as to proper clothes for outdoors in winter.

A. UNDERWEAR. Wool is best. Hot or cold, wet or dry, it is in the long run

most comfortable, and surest against sudden chill. It is worn by explorers in the Arctic with no other garment but a windproof outer suit, and in the tropics in spite of the heat. But it is expensive—it cannot be had for less than \$3.00 a garment. All cheaper contain cotton, and the fuzzy, thick "woolen" underwear at \$1.00 to \$2.00 contain so much cotton that it is better to wear thin all-cotton and save money and comfort. For the thicker a cotton shirt, the more chilly water it will hold, without holding in the heat of the body. Therefore, either get real wool or wear thin cotton under a good flannel outer shirt.

WE are depending upon the friends and admirers of our old correspondent Nessmuk to make this department worthy of his name. No man knew the woods better than Nessmuk or wrote of them with quainter charm. Many of his practical ideas on camping and "going light" have been adopted by the United States Army; his canoe has been preserved in the Smithsonian Institution; and we hope that all good woodsmen will contribute to this department their Hints and Kinks and trail-tested contrivances.—EDITORS.

B. SOCKS. Use thick "woolen" socks. Pure wool socks are almost unobtainable, but if one wears enough of the ordinary sort they'll do. Three pair is the usual thing when on the trail. One pair will do in ordinary winter temperature, but the man who habitually wears only one pair will some time be desperately uncomfortable, and may get frost bite. Carry an extra pair.

C. SHOES. For skiing. With the usual binding a heavy boot with stiff sole is absolutely necessary. Nothing else will give the required control. Have the heel built or hollowed out so that the heel strap will not slip off. Get the shoe large enough to go over three socks. Oil frequently. For snowshoeing, the rubber shoe is best, because most waterproof. Any high moccasin will do. Boots with leather heels ruin the web of a snowshoe.

D. MITTENS. Carry two pairs of woolen mittens and an unlined leather or cotton mitten big enough to go on over one of the woolens. One pair of woolens is a reserve, for one pair is nearly always wet through by noon. The leather or

cotton mitten is worn over the woolen in extreme cold or cold wind, takes the wear of the ski-pole, and keeps the snow out of the weave of the woolen. In warmer conditions it can be worn without the woolen. If it can be fitted with a cuff to pull over the shirt sleeve it will save much discomfort from intrusive snow. Gloves are too risky in low temperature—never take them.

B. SHIRT. Wear a good flannel shirt. If one buys of a reliable firm and pays about five dollars he should get satisfaction. Cheaper ones have too much cotton and tear too easily. It should have big pockets with button flaps. Heavy shirts, mackinaw or other, are too hot for most men, although there is something to be said for the combination of thin cotton underwear and a mackinaw shirt.

F. TROUSERS. The ordinary khaki \$2.00 trouser gives satisfaction for winter work, when woolen underwear is worn. It is windproof, dries quickly, wears well, and sheds snow. Any old trouser will do, of course, but it is apt to lack at least three of these qualities. Army style breeches look smarter, but have no other advantage for winter wear. They are apt to be chilly where they fit closely. Those who wear cotton underwear may prefer the part wool trousers, such as those much used by loggers, to be had at any country store.

G. OUTER GARMENTS. The outer garment for winter sports should keep out wind and shed snow. Cotton does both. Ordinary woolen materials do neither. A sweater is a sieve to a bitter wind; snow sticks to it and melts. European ski-runners use a coat of close-woven cotton. Alaskans use the parka, a loose outer shirt of canvas or denim. An ordinary khaki coat will serve. The mackinaw coat is too heavy to carry. In still air, no matter how cold, no thick outer garment is needed as soon as one is fairly under way, provided a woolen shirt is worn. The coat or wind-shirt will often be worn in the pack, and on short trips may be left behind. The sweater is needed only for long stops in extreme cold and at night. An extra flannel shirt is often used as the outer garment and serves fairly well.

H. HEAD COVERING. Some ear protection must always be ready. The woolen helmet is sufficient for most conditions. Toques or skating caps are too scant and too loose in the weave.

Several health hints may be worth suggesting. Beware of frost bite. If the face looks white in one spot it is probably



frozen. Do not rub with snow, as is so often suggested. The tender skin may be broken and a bad sore result. Rub gently with the bare hand or apply soft snow very gently with a light patting motion. Keep away from heat and avoid sitting close to the fire when in camp. Second only to frost bite is the danger of eye-strain, or "snowblindness," caused by the glare of the sun on the dazzling snow. It is very uncomfortable and is sometimes the cause of lasting trouble. Pale amber glasses cut out the irritating rays and interfere with vision much less than do the old-fashioned smoked glasses formerly in use.

N. L. GOODRICH, New Hampshire.

HOW I CAUGHT A SWARM OF BEES

ONE warm summer evening I saw a swarm of bees buzz through the air. As I watched it carefully, it seemed to have alighted at a point not very far from where I stood. Immediately I went in search; and was delighted to find that the swarm had settled on a branch of an apricot tree, about ten feet above the ground. It appeared in shape and size exactly like an ovoid punching bag. The bees were apparently asleep, for hardly one was seen flying, and the majority were not even stirring.

Although I knew very little about the bee-hive psychology, I pondered on the ways and means to capture this. Finally I decided to try an impromptu formula. Having returned home, I equipped myself with sting-proof armour like a knight of old on the eve of battle: First, I tied the bottoms of my trousers with strings, a la mandarin, to prevent any flank attack from this quarter; next I put on a heavy overcoat and two pairs of gloves; and, lastly, I helmeted the top-piece with a broad rimmed sombrero, shrouding it with a mosquito net, the ends of which I tucked away between the lapels of the overcoat. Thus attired I felt myself invulnerable. In the way of weapons, I took a smudge pot, a pruning saw, a ladder, a rope about twenty feet long, a box about 2x3x1 feet open on one of the broad sides, and another box about 2x1x1 feet with a one-inch hole in one corner. I also took a friend to assist me.

Having reached the war zone, I first carefully adjusted the ladder opposite the bees, and tied one end of the rope to the branch on which the swarm hung, and swung the rest of the rope over another branch just above so that, when

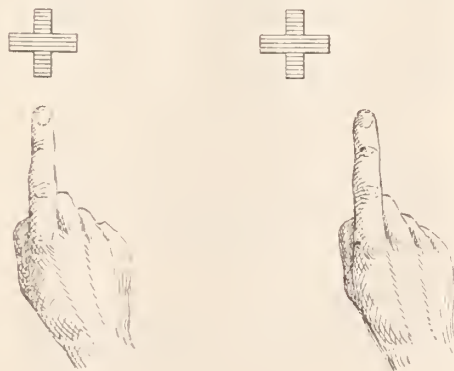
the bee branch was cut, it would swing from this high branch, thus minimizing the disturbance, and I let my friend hold the other end of the rope. This arrangement being finished, I began to saw. Some of the bees seemed angry at being disturbed and attacked me; but being well-protected, I soon finished the job. The whole swarm now swung loose on the rope, which my friend slowly lowered to the ground. I took the larger box and quickly had them covered. It was all buzzing and turmoil inside, as they crashed into each other in the darkness. Next I set the smaller box close by, and made a kind of hall-way from the large box to the one inch hole in the small one. Then lighting the smudge pot, I pumped smoke into the large box from the other side. Soon the bees, seeing the escapeway from the smoke by way of the hallway, began to migrate into the small box.

It was a long job to transfer the whole swarm, as the bees slowly moved across in double and triple files, like sheep going into a cattle car. But the job was done; the swarm was a captive in a neat little box.

T. TAKAI, Seattle, Wash.

WHICH IS YOUR GOOD EYE?

ALMOST all persons, with few exceptions, have at least one eye which doesn't see straight. A good many rifle shots wonder why they invariably shoot



either to one side or the other, when they know they have been aiming directly at an object. This is because they use but one eye. For instance, if they use their right eye to aim with, they shut their left and vice versa. If they have been shooting off the mark, it is quite evident in nine cases out of ten that the eye they

were using is their poor eye. Trap shooters have discovered that if they use both eyes at once this tendency to shoot off the mark is lessened as the focus is apparently corrected.

A method of testing to find which eye is the good eye is to stand facing an object, say a bird, tree or similar object if out doors, a light, picture, etc., if in doors, and pointing steadily at it with one finger, the arm being outstretched and both eyes open, alternately close each eye. It will be found that, when aiming with the good eye, the finger will be dead on the mark, whereas, if it should be the poor eye, the finger will be pointing several inches to one side.

FRANK M. HARTH, New York.

TRAP FOR MOLES

A CORRESPONDENT recently inquired the best method of trapping moles. This little animal is seldom trapped in this country, but in France there are still trappers who make a specialty of their capture for the sake of the skins.

The best mole trap is the old-fashioned one still used by professional mole catchers. A hazel wand is stuck in the ground and bent over to form a spring for the trap, which is made thus: The lid is a small piece of ash (6x3x1/2 in.) with a hole in each corner, in which are inserted the ends of two pieces of split hazel, bent so as to form an arch at each end of the trap just wide enough for a mole to pass through when it is set in the run. A piece of thin brass wire is then inserted in such a way as to form a noose at each end, pressed close against the wooden arches and connected with a bit of whipcord, one end of which is attached to the hazel wand, and the other brought down through a hole in the lid for attachment to the brass wire. This hole must be large enough to allow the knot at the end of the cord to pass through it, and it is then held in its place by a very small piece of wood, called the trigger, shaped like an inverted A. This plugs the hole and prevents the knot from slipping through until the mole pushes against it on passing through the trap. As soon as the trigger is displaced the upward spring of the hazel wand pulls up the wire noose, which holds the mole firmly against the under side of the lid and kills it. A little study and experiment will probably enable the reader to construct a trap along these lines.

J. C. T., Boston.

OREGON TRAILS

To the Editor of FOREST AND STREAM:

WE have a splendid hunting and outing country out here which a great part of the world appears to have never found in its ramblings. We have one of the best game counties in the U. S. for deer and bear—Coos County, Oregon, and some of the finest salmon, salmon-trout and brook-trout fishing to be found. To illustrate, last fall I caught over a ton of fine Chinook and Silverside salmon on one 35c salmon troll attached to a 60c line—not much class for tackle but it certainly brought results. We Hooverized by salting and sending it to friends and relatives who are begging us to go again this year.

I should like to tell your readers about the many pleasant and interesting trips I have taken here in the great fir and spruce forests after deer and bear, or on the sea shore after the beautiful agates which are abundant and can be found after sea fishing has filled the camp larder with the many varieties that live along our coast. It is a pleasure to have the inside office man get a breath of the woods and sea that has grown to be my chief pastime and play ground.

ASHLEY L. HOUGHTON, Ore.

ARDENT SPORTSMEN

To the Editor of FOREST AND STREAM:

THE Reverend Felix O'Neil, pastor of our local Catholic church, and an ardent sportsman, recently shot and killed a full-grown specimen of Canadian lynx, or bob-cat. It is the first ever seen in this vicinity so far from its home; hundreds have viewed it. I should say it weighed 65 to 75 pounds. Its mouth and feet indicate years of growth—front legs the size of a man's wrist—a beautiful cat, but I would let it howl before I would get up in the night and subdue it.

Your old sporting editor, Bernard Waters, and my humble self were brought up, or grew, on adjacent farms in Canterbury, Conn., as kids, schoolmates and chums. Later I had to go out in the world and hustle and lost track of Bernard only to hear of his death twenty years later. My schoolbooks are full of drawings of dogs by him—always dogs—and I can remember the first two hound pups a man in Jewett City gave him, and that was his start. I could tell you how we boys, wanting to go hunting one day, ran a lot of his father's blasting powder through an old coffee mill to adapt it to his old smooth bore.

C. W. COMINS, Connecticut.

This letter from Mr. Comins is of great interest to us, as we were great admirers of the late Bernard Waters, and were

LETTERS, QUESTIONS AND ANSWERS

warm friends. He was a remarkable character—very peculiar in some respects, but he had a large number of very devoted friends.—[EDITORS.]

SAVING THE GAME BIRDS

To the Editor of FOREST AND STREAM:

OWING to the scarcity of Game Birds in Connecticut this year, it seems quite sure that the Legislature may pass a law for a close season.

From my own experience, I am thoroughly convinced it is not the hunters that are killing off our native grouse nearly so much as it is the vermin.

Old trappers and hunters tell me that there are more skunks, hawks, owls and coons this year in Connecticut than they ever remember, and my object in writing to you is to get copies of your magazine, in which you have published articles, showing that by the extermination of vermin, and possibly the planting of the late bearing berry bushes or apple trees, that our game birds have materially increased, wherever this has been done.

All of my shooting friends and myself feel that if a law could be passed, which would put a large enough bounty on all kinds of vermin, our native game birds would be plentiful again, and we think that it may be wise, after further study, to send out reprints of all the articles that have appeared in your magazine to all sportsmen in the State, and make them realize that if some thing is not done at once our native game birds will be only a memory.

CHARLES SHERWOOD, Conn.

We most thoroughly agree with your opinion that vermin destroy more game birds than do sportsmen, and legislation aimed at the destruction of skunks, hawks, crows and owls is the best method of saving the game.

We are glad to publish your opinion in FOREST AND STREAM, for it is only by an exchange of views on this subject that public interest is aroused. [EDITORS.]

A. C. A. NOTES

To the Editor of FOREST AND STREAM:

IT is my intention to bring before the next meeting of the Executive Committee certain changes in the Constitution and By Laws relative to removals and expulsions of officers or members of the American Canoe Association. I

therefore would appreciate it if you would publish in the next issue of your paper the following proposed changes:

Amend Article XIII of the Constitution, third and fourth lines, by striking out the words "Executive Committee" and substituting "Board of Governors."

Amend Chapter XII of the By Laws by striking out the 6th, 7th and 8th lines and that portion of the 9th line including the word "held," and substituting therefore "two-thirds of all the members of the Board of Governors," adding in addition the following sentence—"Any person may be dropped from the list of members by an affirmative vote of two-thirds of the members of the Board of Governors if in their opinion the best interests of the Association will be served thereby. This would make the whole Article read as follows:

"Chapter XII. — Expulsion. — Any member who is guilty of ungentlemanly conduct, or disobeying the rules or orders of the Association, or any of its officers or committees, or of racing for money, shall be liable and may be expelled from the A. C. A. by the affirmative vote of two-thirds of all the members of the Board of Governors, but a copy of the charges and proof shall be sent to the person proposed to be expelled, and he shall have twenty days to file his answer and proofs with the Commodore. The charges, answers and proofs, in full, shall be laid before the members of the Board of Governors. Any person may be dropped from the list of members by an affirmative vote of two-thirds of the members of the Board of Governors if in their opinion the best interests of the Association will be served thereby. In case the Commodore is the person proposed to be expelled, the duties in this chapter assigned to him shall be performed by the Vice-Commodore of the Division in which the Commodore resides."

OSCAR J. WEST, Commodore, A. C. A.

AN INVITATION

To the Editor of FOREST AND STREAM:

I HAVE just finished reading my January number of FOREST AND STREAM, and wish to express to you the real pleasure I get out of reading your magazine. I discovered FOREST AND STREAM only about a year ago, but have since become a regular member of your family.

I enjoyed the writing about "Night Shining Amid Florida Swamps," by Thomas Travis, Chaplain, A.E.F., very much, for I have many times in the sixteen years of my life in Florida enjoyed just such a night hunt.

I am reading with much interest, "The Gulf Rangers," by W. Livingston Larned, for twice I have had the pleasure and

thrill of a trip among the islands on our west coast, and many times a hunt in the Big Cypress and Everglades. I returned only two weeks ago from a trip to the Big Cypress where we got plenty of deer and turkey and I enclose a small print of a nine-point buck we were able to bring home intact, my little son, Leslie Jr., is holding him by the horns.

Florida abounds with fresh water lakes filled with black bass, and I would invite the readers of FOREST AND STREAM to come here for a winter outing.

L. B. ANDERSON, Florida.

A RABBIT SKIN BLANKET

To the Editor of FOREST AND STREAM: I WOULD like to have some further information about making rabbit skin blankets and as you published a short article about them some months ago, I am in hopes you can give it. Recently I wrote to another magazine, but the only information they could give was practically the same that was published in FOREST AND STREAM some months ago. I would like to know several things about the blankets and they are these:

1. Are they made from a certain kind of a rabbit or are they made from any kind of rabbit skins?

2. Will you describe how they are made in such a way that any one reading the article can make one himself?

3. Where can one buy these blankets or quilts and what is the best size?

"An Old Friend."

Rabbit skin blankets are made from the skin of the snowshoe rabbit. The pelt is tanned—some prospectors only rub alum on them—and then trimmed to the shape of a square. It takes about 200 hides to make a good size blanket. These hides are then sewed together, generally by the squaws who live near the Hudson Bay stations, into rectangular shape, about seven feet long by six wide. Two Hudson Bay Company's four-point wool blankets are then placed one upon each side of the rabbit skin and stretched while the rabbit skin is allowed to remain as loose as possible. The edge is strongly sewn all around. This is said to make the warmest bed a man can get. This is the white-man's method of making the blanket.

The redskin prefers to cut his rabbit skin in a long strip commencing at the edge (after trimming legs, heat, etc.) and cutting in a circle to the center. Strips are cut about an inch in width, then the squaw stretches it from tree to tree until dry. When several are prepared they are sewn together end on end like old fashioned carpet rags, until a sufficient length is obtained, when the squaw proceeds to weave them into a blanket, somewhat like a basket weave. A variation of this method is a sort of

knitting stitch in which the strip is threaded by thumb and finger through the preceding row of loops.

The redskin cuts his blankets about four feet square and stretches them same as the other way when sewing together. We do not see how he manages to keep warm in his little blanket; perhaps he wants an extra light pack and so will forego a little warmth. A blanket built the first way will weigh about 25 pounds and makes a nice pack for a good-sized dog on a hunting or prospecting trip. The Indian method makes a much lighter blanket, but it is much less durable.

We doubt if one could purchase such a blanket, although it might be done through one of the Hudson Bay Company's posts. It is likely that any kind of rabbit skin would make a good blanket. It might be worth trying if one could get enough skins. [EDITORS.]



A nine-point buck from the Florida Big Cypress

TRAPPING COUGARS

To the Editor of FOREST AND STREAM:

ALLOW me to present my wishes for a happy and prosperous New Year, with success to FOREST AND STREAM.

Mr. C. E. Cherry, of: Arizona, desires some information on mountain lion trapping. I enclose herewith a few "secrets" of my beloved granddaddy, who was a hunter and trapper of no mean ability. He saw service with the Hudson Bay Company and was a government trapper in the Yellowstone National Park where these critters are a real menace to game.

In the first place, Mr. Cougar (or mountain lion), as he is usually called, is an extremely wary critter and a great rambler. If you have caught one cougar proceed as follows: Remove the whole anal part of the animal, or better still (if you know some anatomy) and know where to find the gall and anal glands—remove these and mix with the animal's urine. By the way, these glands lie on either side of the vent and look like small pieces of bluish fat. Place this concoction in a bottle and use one-quarter the amount of glycerine to

thicken it somewhat and prevent its speedy evaporation. Glycerine is a heavy liquid and absorbs water upon exposure and thus prevents the mixture from evaporating. To keep it from spoiling, preserve it with some bichloride of mercury, dissolve in a little warm water. Allow this dope to stand a few days, shake it up and scatter a few drops on weeds or ground some 8 or 10 inches back of the place you select for your trap. A number 4 newhouse is about right size for this varmint. Conceal your trap very well—if possible near a cougar trail. Don't forget to smear some of the mixture on your gloves or shoes to conceal the human odor.

If you want a very speedy and effective method of removing cougar in double quick time, by all means use dogs. For dogs, a pack of 6 foxhounds and 3 full-blood Airedales makes an ideal combination for this sport. The Airedale is the scrappiest thing on four legs and proves a dangerous foe.

L. S. R.

To the Editor of FOREST AND STREAM:

IN your January number Mr. Cherry of Arizona wants information about trapping lions that are getting the deer. My method of trapping these varmints is as follows:

I take a trail to center of a thicket, there I hang a freshly killed rabbit about five inches from the ground and directly over the trail. I run my knife through the rabbit's lungs and pull down to make blood flow. Now I set two No. 4½ traps in trail, about ten feet apart, on either side of rabbit, and

bed them down. Brush out all sign. Mr. Lion is not a bit afraid of human scent. A set of this kind is nearly always sure to catch him. If he does not step on pan coming over, do not be uneasy, because he is sure to back up a few feet and crouch. You will get him sure this move.

I hope this will help to end Mr. Cherry's troubles.

R. J. L., Iowa.

To the Editor of FOREST AND STREAM:

Why do rabbits have such a large bunch of white fur at the end of their tails which makes such a conspicuous mark for the hunter and dog? I think Nature designed it purely as a protection for the young. When the mother and young are feeding and she hears or sees danger approaching she stamps the ground with her feet and runs to the safest place she knows. The young immediately follow her white flag through the darkest of places. I have often seen the flash of her white tail on real dark nights and I have no doubt the little rabbits have no difficulty in following her to places of safety.

T. C. HOMILLER, Washington, D. C.

THE LOOKOUT'S WATER TANK

To the Editor of FOREST AND STREAM:

I AM sending you a photo of the method we used to pack a large water tank, 14 miles by trail, up to a lookout station called, "Stormy Lookout," in the Chelan National Forest. Where the trail was full of switch backs, we packed the tank on a horse and when we came to a straight piece of trail we hauled it on shalves. The tank weighed 125 lbs. and held 300 gallons of water. It is filled the first of July when the lookout first goes on duty and it usually keeps until the middle of September, when he leaves. The average fire season is July and August. It took three men four days to pack this tank up to the top of Stormy Mountain, an elevation of 7,219 feet above sea level.

C. H. FOSTER, Washington.

TITLE OF SPORTSMAN

To the Editor of FOREST AND STREAM:

IN these days the term "sportsman" is often applied quite indiscriminately to any person who procures a rod or gun and goes in pursuit of game. Some there may be, even, who do not know that in olden times this title had to be won by certain well defined qualifications. In days not long past the title of a "Scottish sportsman" could not be claimed until a person had secured a wild swan, as well as a stag, an eagle, a seal, and a salmon.

J. P. H., New Jersey.

FROM AN OLD SUBSCRIBER

To the Editor of FOREST AND STREAM:

I have 13 bound volumes of FOREST AND STREAM, beginning in 1874, Volumes 2, 4, 5, 6, 7, 8, 9, 11, 12, 14, 15, 18, 19. Do you know of anyone that would like to purchase some?

J. B. PARDOE, N. J.

RETROSPECT AND PROSPECT

To the Editor of FOREST AND STREAM:

LET us all try to make our streams fishing the most gentlemanly and sportsmanlike pastime."—VIRGINIUS.

More than one beautiful thing rose before the inward eye as I read, "Fishing by the Friendly Fireside," in your January issue. Perhaps there are those who would call such an article sentimental; and the author of it, a visionary. Fortunately, however, he does not hand over the fairest moments and moods of life to that mixture of irresponsible feeling and unprofitable emotion that

sentimentalism connotes. Life is not only enlarged and refreshed by going forward: it is enlarged and refreshed also by going backward. Never mind what the old song says about "Once in the dear dead days beyond recall." The dear days are not dead—they never die.



Packing water up "Stormy Lookout"

They come back to us again and again. The truth is, the dearer they were as we lived through them the more fresh and vivid is their company with us again.

Many years ago there was placed in my hands a little volume, the title of which was "Lorna Doone." Once each year I open its covers and give myself over to the companionship of John Ridd. He has shown me the Bagworthy River, and very graciously introduced me to the maid he loved. Angling surely cast its spell over this stalwart hero. It has surprised me that the poor fellow was never criticised for using a spear with which to catch his roaches and trout. Make no mistake about it; he used it with consummate skill, and never left one to rot upon the bank.

To the right, on top of one of my book-cases are six splendid rods. There, too, are reels, lines, leaders and flies. What a comfort it is to take them down and look them over! This little four-ounce rod swiftly despatched a pounder in swift water. That "five and a half ounce" was steadfast and true while struggling in a brushy backwater, with a trout that would not obey. . . .

I am back again at the side of my favorite stream. No doubt it is frozen from bank to bank by this time. But I am living over the August days. What rod will be chosen to begin? With trembling hands the slender lengths are jointed, reel fitted and leader stretched. But here is the problem—which fly? One thing is certain: only one fly—wet or dry—will grace the delicate cast. But why call to remembrance that experience which is so agonizing, yet delightful? After all, it was a Spent Gnat! Then carefully the way is made to the pool beneath yonder spreading tree! . . .

I did not know him, and the uncharitable question arose: "What right had he fishing my stream?" Nothing was left but to sit down and watch him. He used the finest tackle and knew how to manipulate rod and line, for his fly lighted like thistle-down upon the amber-colored surface. Nor did he have long to wait before his fly was sucked below and the fight was on. It took but a few minutes before the trout was landed: a sixteen incher! Turning, he noticed me and came and sat down by my side and talked the matter over. He said, "I have heard of you. They told me I should find you up here."

For an hour or more we sat together rejoicing in the beauty and

freedom of the open, forgetting the crowded marts; content that nature should have her way with us. His favorite rod was a cork-handled, all-bamboo of three and one-half ounces. The reel light, and held a fine tapered line, size C. The fly—a Pink Lady. He never used but one, and when he lost a fish he seemed to rejoice. I found that he came to the woods to recuperate, for deep waters had gone over his soul. Quietly he spoke of his "golden boy" now resting in Flander's Field. "Nature and God," he remarked, "have the healing touch." Thus did I meet an angler; a man reverent and religious. He studied to be quiet. We took that day eighteen trout, and returned to the valley as the sun was sinking behind the distant hills.

In retrospect are these words written. Spring and summer are yet to come. We are all looking forward to the time when the first cast will be made and the first prize landed. As we go forth let us remember what was done amiss in the year that is no more, and resolve to attain unto the true spirit of an angler.

"O, sir, doubt not but that angling is an art."

REV. JAMES A. FRASER, N. Y.

To the Editor of FOREST AND STREAM:

I HAVE just learned that at one of our division meets the displaying of a Vice-Commodore's flag by an ex-Vice-Commodore caused some comment.

On October 26, 1901, the Executive Committee passed resolutions amending the By-Laws with regard to cap insignia of ex-Commodores. I am suggesting something exactly similar for the flags and also cap insignia for all officers and not simply ex-Commodores.

Will you kindly publish this letter and the following amendments to the By-Laws in the next issue of FOREST AND STREAM?

Chapter V (Page 16 of 1917 Year Book). Add the following paragraph: The flags of ex-officers to be the same as those of active officers except that they shall have the year of office shown in numerals not less than one inch high along the hoist of each flag.

Chapter X. Add to paragraph of resolutions passed October 26, 1901 (page 18 of 1917 Year Book): That worn by other ex-officers shall be the same as by respective active officers except that the year of office shall be shown below the insignia.

OSCAR S. TYSON,
Rear-Commodore, Atlantic Div., A.C.A.

ANYBODY ELSE?

To the Editor of FOREST AND STREAM:

ON a fishing trip early this fall I had a somewhat strange experience. It was at Dickie's Lake, which is situated in Hastings County, Ontario. While trolling for lake trout I found that when a fish was taken from the water it made a strange moaning sound, somewhat like the cooing of a dove, but not quite so loud. It was a little uncanny, and did not add to the sport. Mr. Bruce Powers, of Trenton, was with me and he stated that he had heard the sound before from the fish in this lake. The fish were much darker in color than is usual in the lake trout and would weigh two to three pounds. I would like to know if any other fishermen have had similar experience.

W. R. WOOD, Canada.

Personally we have never heard the coo of a fish, and can shed no light on the incident; but we hope that some other sportsman who may have had experience with vocal fishes will now dare to speak up.—[EDITORS.]

A RAINBOW CHASER

To the Editor of FOREST AND STREAM:

WHILE reading your periodical from time to time I often notice a story of a "catch." However, I do not see very many from Montana, although we are proud to say there are many fine places for fishing in our State. On July 9th, I caught, so far as there is any record of, the largest rainbow trout ever caught in the State. Taking this into consideration thought perhaps you could use a picture of it.

You know those hot days, when the cement walks burn through your shoes, and heat waves curl up from the pavement, which makes a fellow wish he was standing waist deep in some cool mountain stream, puffing his jimmy pipe, and casting his fly out on the riffles. July 9th was just such a day and it didn't take long to persuade two of my friends, Bish and Seph, that they needed

to have an outing the next day.

Filling the tank with gas and oil we left Billings at 7:30 p. m. headed for the second bridge over the Boulder River, 105 miles west. By midnight we had covered more than 80 miles of the trip, so decided to camp on Deer Creek for the night. Our cook kit was brought into use early the next morning and after a breakfast of ham, eggs and coffee, such as can only be made over a camp fire, we proceeded to the "Second Bridge."

The Boulder River is one of the many beautiful and picturesque trout streams in Montana, and one would feel well repaid for the long trip, such as we took for one day's fishing, even though he did not have trout for dinner the next day, but he is indeed a poor fisherman who cannot catch a mess in a day's fishing on the Boulder in July.

All three of us had qualified as being fair fishermen by 4:30 in the afternoon, as we had from 25 to 40 trout each. We were to meet at the bridge at five to start back and while hurrying to some good looking riffles a short distance down the river, I was regretting that we had only a half hour to fish. I waded out into the river and cast into a riffle just below a rock, and my heart almost stopped beating as a big one came half way out of the water with my fly. I gave a quick jerk, and the fun had started. Being in quite deep water I had all I

water rivers, I believe this one was the biggest by several ounces of any rainbow trout caught in this section of the country.

I have told many stories of the big ones which get away but now I can tell of the big one which I caught, and as proof, which is always necessary to make a fish story convincing, I can show him—mounted.

H. M. EASTON, Montana.

DOGS AND SKUNKS

To the Editor of FOREST AND STREAM:

IN answer to a question asked by Dr. Thomas Travis in an article by him in the January number of your very interesting paper, permit a woman to say she has a solution to the problem, not her own, however, but that given her by an old trapper whose word was "the go," where he was known.

Mr. Travis's question was this: "Will some old veteran trapper tell me of his experience?"—in skunk hunting, why sometimes men, and in particular some dogs can handle these creatures without getting scented; or in other words, *why does the skunk sometimes fail to act.* The contents of this scent-sack was given him for a weapon with which to defend himself, and sometimes he does not use it. Why?

There could be several reasons "why," known to the skunk alone, but there is one fact that settles the matter whether the skunk "wills" it or not, and it is this: The skunk must be able to get his hind feet on the ground or pressed against some object, firmly, or he cannot bring the muscles that control the scent-bag into action.

The dog may know this and again, he may not. His "knowledge" or "wisdom" of these subjects is a very interesting study. I have been under the impression since childhood—for 25 years—that all sportsmen and trappers knew the "pole-cat" from a to z, and I'm glad to

tell something that was freely made known to me.

I am a natural born lover of Nature, and when the opportunity comes for a ramble over hill and vale, I grasp it with enthusiasm. I certainly do enjoy hunting—not so much big game—got more of that than I'd bargained for once over in the "Bad Lands" of N. D.—but "Mollie and Jack" for me! I'd be out after them today, but my hubby is gone to the Gulf for a few weeks' stay and I've promised to stay at home until his return, so I shall roam over the vast plains of the West; the swamp of the South; the arid lands of the "Border"; the snow-clad butts of the cedar-scented North, with my "thought companions" of FOREST AND STREAM, until I am free again.

A. B. C., Indiana.

(SEVERAL LETTERS ARE HELD OVER)



The largest rainbow trout ever caught in Montana

could do to stay on my feet and keep Mr. Trout from getting a start in the swift current, as I knew if that happened he would tear loose or break my tackle. I managed to work back into more shallow water, and at last he showed signs of giving up. I tried to bring him into a shallow place, but suddenly reviving he would dart back into the swift current. This was repeated four or five times, but finally he failed to make a "last stand" and I pulled out onto the sloping bank a beautiful rainbow trout, the largest I had ever seen. When weighed some half hour later the scales registered 10 lbs. 2 oz. He measured 29 inches in length and 17½ inches around.

We were late in getting into Billings on our return as we had to stop in Big Timber and Columbus to show our big one. Although many large trout have been taken from the Boulder and Still-



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RIFLES AND RIFLEMEN

THE TYRO'S PRIMER

CERTAIN TERMS, PHRASES AND IDIOMATIC EXPRESSIONS USED BY MILITARY RIFLEMEN ARE DEFINED AND EXPLAINED

By CAPTAIN ROY S. TINNEY, Associate Editor of FOREST AND STREAM

(CONTINUED FROM LAST MONTH)

THE rifle must be held firmly with the butt-plate pressed snugly in the *hollow* of the shoulder. *Do not* place the butt against the shoulder-point or the biceps of the arm, this is, unfortunately, a common error and causes the painful bruises so often sustained by soldiers and trap-shots, who fire a large number of cartridges in a short time. The old injunction "hold her tight" is good advice, providing it is not overdone, for too much pressure is just as fatal to accuracy as a loose, sloppy grip on the piece. Hold the butt *in the hollow* of the shoulder with a firm, even pressure that does not vary from shot to shot and "ride the recoil" by permitting the shoulder to move backward a short distance as the gun speaks. In this way one avoids all injury and punishment, and secures accurate consistent shooting.

FLINCHING

THIS is an involuntary, nervous twitch of the shoulder muscles that occurs just as the trigger is "eased off" or, I regret to say, "pulled" in many instances, and renders utterly worthless the best trained and most experienced men. This vicious malady is caused by three things; not holding the gun properly, using a stock that does not fit you, or firing an overloaded weapon. The shooter's shoulder soon becomes one great, throbbing bruise; every shot is simply so much added agony and, as it is only human to fear that which hurts and injures, a man soon finches in anticipation of the coming punishment. The best way to cure "flinching" is not to contract it; therefore, do not fire heavy ammunition until you are fully instructed as to the proper method of holding your gun.

THE SLING

MOST people think the sole office of the sling is to assist in carrying the weapon, while in reality that use is merely a by-product; as the real purpose of the strap is to steady the gun at the instant of firing and reduce the effect of the recoil by making it possible to hold the butt firmly into the *hollow* of the shoulder with the even, consistent pressure that is required. There is just one safe rule to follow: Learn to use the sling correctly and then *use it*—at all times and in all positions.

The old service sling was made of leather, cumbersome to carry, stiff to

use and difficult to adjust, also a leather strap has a nasty habit of not staying where it is "put" and after a few shots is prone to slip out of position and cause trouble. The new web strap now issued to our boys has cured all these annoying difficulties and for civilian use possesses the added virtue of costing much less than the "bit of bullhide" formerly used.

To adjust the sling loosen the lower part to its full extension as a single strap, then lengthen the larger, or upper loop until it comes opposite the comb of the stock. The average Tyro will loudly proclaim that the sling is "so tight," but experience will soon show him that this measurement is correct for a man of average build and need only be slightly lengthened or shortened to suit the anatomy of the individual. After you have become thoroughly accustomed to the use of the sling, make a mark on the under side of your rifle stock giving the length that is "right" for you.

To put the sling on the left arm, hold the gun in the right hand by seizing the weapon at the grip and resting the heel against the groin; pass the fingers of the left hand into the large loop with an inside hooking motion so the arm will enter this loop from the *right side*, as shown in the illustration. Bring the loop up well into the armpit and shove the keeper firmly home above the biceps, and see to it that the sling *stays there*; if it slips down toward the elbow the value of the sling is lost. I would suggest you see to it that the keeper fits the strap snugly so it will hold the loop firmly against the left arm and it is good idea to sew a piece of small rope around the sleeve of your shooting coat to keep the sling up where it belongs.

Slide the left hand well out under the rifle, all the way up to the forward swivel, and be very careful that the forward part of the stock rests upon the *palm* of the left hand, and is not supported by the fingers, which should be placed firmly about the wood covering the barrel. Always remember the sling must pass around the *right side* of the left wrist and if the pressure causes pain, just slip a heavy, lined glove on the left hand, like we bugs do. Also remember that the left hand has just one job to do, *hold*, firmly and consistently. Until a man can adjust his sling readily and use it with comfort, he should not be permitted to fire a shot.

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IT'S time to plan for that fishing trip. Don't wait until the last minute to supply yourself with equipment. *Good fishing tackle is half the battle!* Select it with utmost care—use only *tested tackle*. *Anticipate all your requirements*—be ready for every emergency.

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EVINRUDE Detachable Motor for Watercraft

THE RETURN FROM THE HUNT

(CONTINUED FROM PAGE 108)

meandered so quietly through the village had grown into a mighty torrent and had cut a wide swath through the heart of the town. It had carried away a number of houses—contents and all—and deposited them in broken fragments upon the deep bosom of Resurrection Bay. The entire population had been fighting the flood day and night, struggling to confine the water to some semblance of a channel, making sand bags and piling them along its banks, in frenzied endeavor to save their homes from ruin. As far back as the memory of the oldest Alaskan could go there had never been a flood like this. Even the usually unperturbed engineers who had grappled with the mighty problems of railroad construction in a land where nature offers a stern resistance were in despair when the seemingly endless chain of trouble messages began to pour into the office. It seemed as though every bridge over the entire line had been broken or swept away, and so many landslides had occurred it would almost have been easier to survey a new right of way and start all over again. Long years of patient labor had gone for naught. It was many weeks before the train that we had left at Mile Twenty was able to crawl into Seward over a patched up track.

SITTING around the stove in the comfortable Hotel Sexton we had a happy time that night talking over all our adventures, revelling in the delights of civilized life once more. Several days later our trophies and baggage were relayed in on speeders and we arranged to take a steamer around into Cook Inlet from which we were planning a journey into the Mt. McKinley region; so we bade farewell one morning to the splendid fellows with whom we had lived in such happy companionship—sharing hardships which, in the true sense, were not hardships at all but “just a damn queer way of enjoying yourself,” as Ben would say. And the last sight we had of that fine fellow he was walking from the dock in the early morning light after having shaken our hands in parting. A few weeks later he undertook to run down some boot-leggers who were supposed to be in hiding along the bleak and barren coast to the westward and he put out to sea in a little dory with Bill Weaver, another man of the same intrepid type. They used the same outboard motor that had played us such tricks on Kenai Lake. That was the last that was ever seen or heard of them. Their dory was found a few weeks later smashed up on the rocks about a hundred miles below Seward and a part of Ben’s grub-box washed ashore near Seldovia. The heaving waters of the great Pacific moan a solemn requiem among the rocks and shoals of that pitiless coast and the relentless mountains rear their snow-crowned heads above the mighty sepulchre of two of nature’s noblemen.



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Study that cross-section—four layers of leather between you and the trail give full protection without extra weight of stiff sole—leather sole. The lightest boot ever made for hard service. Stands the gaff—and keeps your feet dry. Special chrome waterproofed cowhide, chocolate color, with sole piece of wonderful Maple Pac hide that outwears sole leather. Note our patent “Never Rip” watershed seams—no stitches to lead water in to your foot.

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- For the 2 Next Best Fish Stories 25.00 Worth
- For the 4 Next Best Fish Stories 10.00 Worth
- For the 5 Next Best Fish Stories 5.00 Worth

Thirteen prizes in all to be selected from our 1919 Catalog, issued about April 1, 1919.

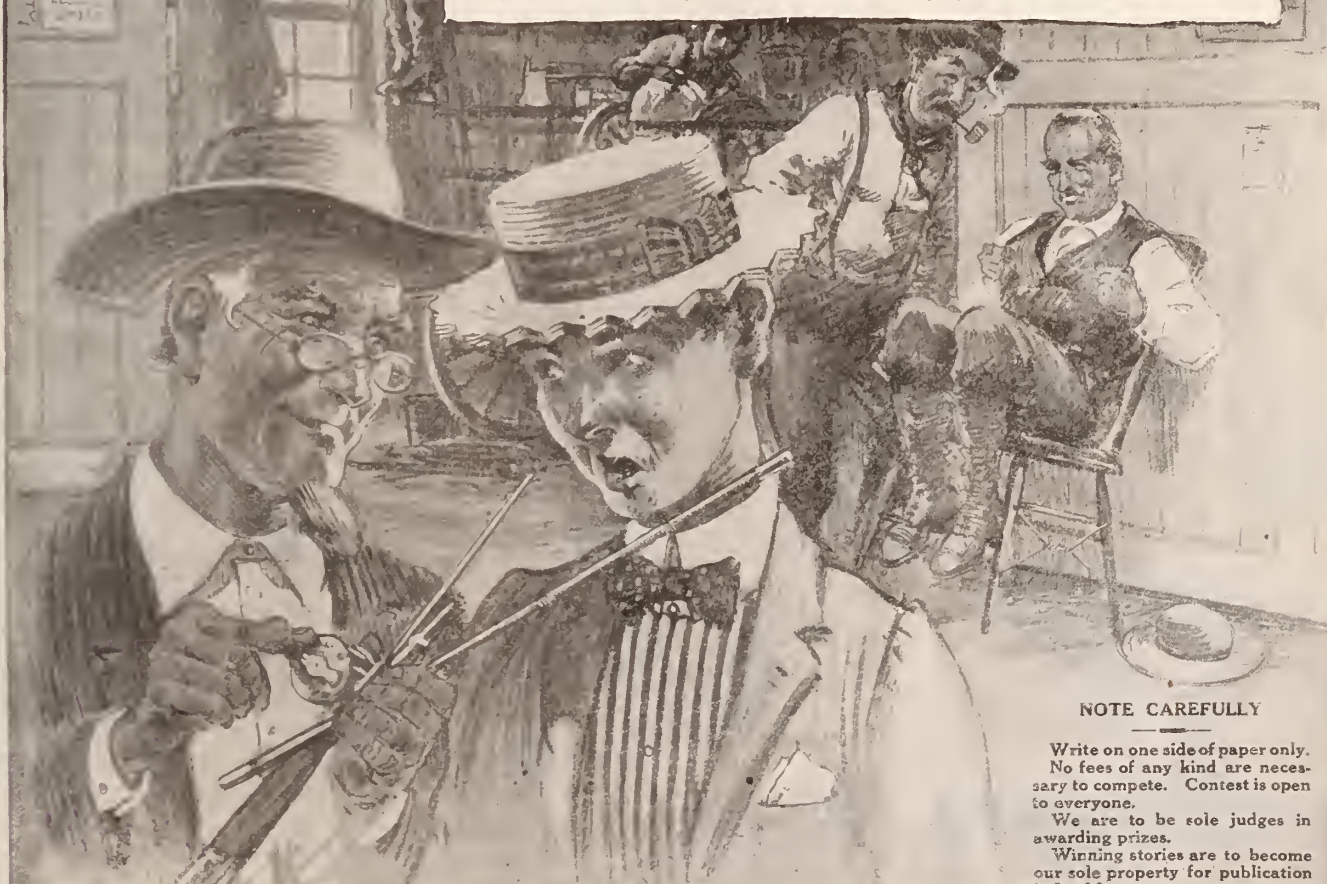
These stories may be true or not. They may be whoppers or actual substantiated facts. They can be curious or funny or exciting. But they must be about fish and fishermen. Let yourself go and tell them in your own way. Send as many as you like, but no story must exceed 700 words. Short stories are preferable, however.

CONTEST CLOSES APRIL 1, 1919

Manuscripts cannot be returned. In the event of more than one person sending in the same story the one telling it best will be given the preference.

Address all stories to

Abbey & Imbrie Contest Editor
c/o Baker, Murray & Imbrie, Inc., 10-15-17 Warren St., New York



NOTE CAREFULLY

Write on one side of paper only.
 No fees of any kind are necessary to compete. Contest is open to everyone.
 We are to be sole judges in awarding prizes.
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NOTES ON LONG ISLAND SHORE BIRDS

(CONTINUED FROM PAGE 122)

In plumage they are almost exactly alike, mottled more or less black and white in summer, gray above and white below in winter. The very considerable difference of size between the two is not always appreciable, but the trained eye will usually pick out the much larger bill of the Greater Yellowleg. The whistled notes of the two are recognizably different, those of the Greater being clearer and more ringing, *whew, whew, whew*, generally in series of three or more calls instead of singly or in twos. The Lesser has also a common shorter note *whip, whip, whip* often uttered continuously, and most frequently heard when they are flying in flocks of fair size. Both species have other cries, some of which are indistinguishable in the two.

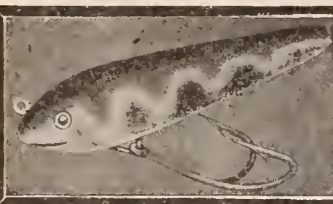
In spring the Lesser Yellowleg migrates up the Mississippi Valley and is of rare occurrence on the Atlantic Coast, while the Greater is abundant and noisy there. On the southward migration both species arrive in July, following the meadows along the coast. The Lesser or Summer Yellowleg attains its greatest abundance in August, occurring singly or in flocks of varying size, twenty or even forty individuals together being not uncommon. The Greater or Winter Yellowleg is comparatively scarce until September or October, and sometimes lingers into November.

Cases among birds, similar to that of the Yellowlegs, where two species are practically identical in color though differing markedly in size, are not rare. Very likely the Greater Yellowleg is not so closely related to the Lesser as its similarity in plumage would lead one to suppose. Perhaps its similarity to that species not infrequently enables it to escape the Duck Hawk deluded into believing it is dealing with the smaller, less active bird.

LAWS FOR TRAPPERS AND HUNTERS

To aid trappers and hunters the U. S. Department of Agriculture has issued Farmers' Bulletin 1022, "Laws Relating to Fur Bearing Animals," which is a summary of legislation in the United States, Canada, and Newfoundland, relating to trapping, open seasons, propagation, and bounties. Under the stimulus of high prices there is always danger that trappers will deplete the trapping grounds and permanently decrease the number of fur animals, the Federal specialists say. Regulations and seasons should be carefully observed, so that the fur supply of the future shall not be endangered.

For the fiscal year ended June 30, 1918, the foreign trade of the United States in raw and manufactured furs reached the largest total in the history of the country. While exports were only \$13,903,631 as compared with \$15,729,160 for 1917, the imports were \$38,389,372, as compared with \$21,553,375.



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is positively the greatest fish getter ever used on a fly rod. Handles easily on any ordinary fly rod. Has the slow wriggling zig zag movement of a crippled minnow. Great for large and small mouth bass, large trout, pike, and pickerel. Exquisitely finished in Silver Shiner, Red Side Minnow, Yellow Perch, Red Head, etc. Two sizes, 1 3/4 and 2 1/2 in. Can be used on bait casting rods by adding small sinker.

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Price each 35c 35c 55c 75c 90c \$1.25

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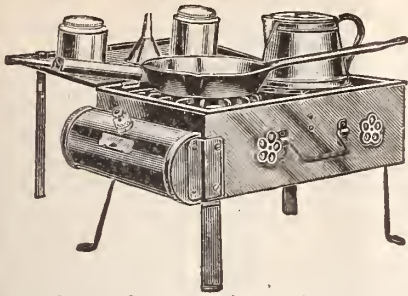
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1919 OLD FISHERMAN'S CALENDAR

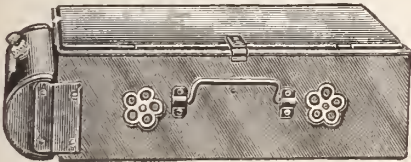
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The men of France have died fighting our battles. The women and children of France are left to bear the burden.

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Prove your patriotism by helping immediately, practically and personally, our ally, France.

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\$.10 keeps a child 1 day \$36.50 keeps a child 1 yr.
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I pledge \$36.50.... for a boy aged in its
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I enclose herewith \$..... in part total payment for the above and pledge myself to give the remainder in payments.

CROSS OUT THE PARAGRAPHS YOU DON'T ACCEPT

I promise to give the same amount next year. I wish to know the name and address of the child or children.

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Address

Checks should be drawn to "THE FATHERLESS CHILDREN OF FRANCE COMMITTEE" and mailed to the Chicago Treasurer, DAVID R. FORGAN, Room 741 Fine Arts Building, Chicago.

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summer resort is located on the Kootenai River in the Cabinet Range of the Rocky Mountains in Montana and affords some of the best fishing and hunting in the West.

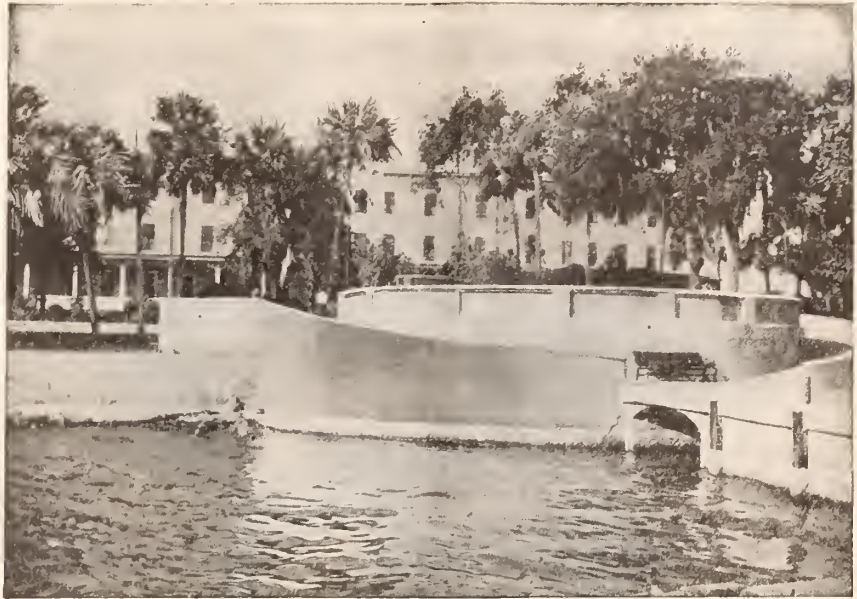
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Grand new book of duck and goose hunting narratives by J. B. Thompson, Paul E. Page, Hamilton M. Laing, R. P. Holland and Forest H. Conover. Price \$2.00. W. C. Hazelton, 406 Pontiac Bldg., Chicago, Ill.



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ROCKLEDGE, - - FLORIDA**

175 miles below Jacksonville, in the midst of the famous Indian River orange groves. Ideal climate, flowers and sunshine. A great deal of money has been spent on the hotels making them equal to the best in the state. Fine hunting. Fishing has always been good at Rockledge; now it should be the best in Florida as there has been a new inlet opened to the ocean just below Rockledge. Any fisherman will know that this means wonderful fishing. One of the great attractions is the golf course. Boating, motor boating, clock golf, dancing, billiards, pool.

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Foremost as it has been in the encouragement of this shooting and these clubs, Remington UMC is best able to help—as it is helping—to bring this splendid sport permanently into its own in this country.

If you are interested in getting up a rifle club, reviving one, or putting some ginger into the one you have just been elected President of, write today for a free copy of the Remington UMC Handbook, containing full information, including how to obtain Government assistance through the N. R. A., and what complimentary Remington UMC targets to ask for.

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Largest Manufacturers of Firearms and Ammunition in the World
WOOLWORTH BUILDING NEW YORK

MAKING YOUR OWN BASS BUGS

(CONTINUED FROM PAGE 119)

these flies attractive to the wily fish.

Personally, I use three or four bristles frequently in the wings or toils, that are taken from a Javelin hide—the collared peccary of natural history—but as these are not readily obtainable everywhere, I presume, hog bristles or horse hair would do the same thing, which is to support the softer hairs and prevent their matting down in the water.

Don't be afraid to make some all white except the body and even that can be white for night fishing. In late summer when the bass are lying deep the light-colored flies will get the most fish.

Orange bodies with white wings and tail with just a touch of red fox or squirrel hair is a good combination. Bright red body with dark grey squirrel or deer hair has proved a winner for big ones with me and especially when the sun was shining brightly. Aluminum bodies with red heads look good day or night.

THE following list of "don'ts" will help you avoid some disappointments, but cut down your experimenting too, so disregard them if you want the fun of trying.

Never cut the outer ends off the hairs if they seem too long as they are tapered and their wonderfully live appearance in the water is dependent on preserving the tapering end.

Manufactured Bucktails do not possess this quality because the hairs are chopped off square.

Cut off at the root end if you must reduce their length, and always tie the root end to bodies when making flies.

Don't use short or low-grade corks as they work badly, are hard and heavy.

Don't get the shellac on the hairs, except very close to where they are tied to the body as it stiffens them.

Don't use small hooks as they do not protrude enough and you will miss too many strikes. Besides their eyes are too small. This of course is not to apply if you are making midget size flies, as all parts should be in harmony.

Do not wind thread around bodies so as to compress the entire cork as its lightness is lost in proportion as its bulk is reduced by compression.

Never fail when putting the fly on leader to insert the loop (which must be long enough to pass through the fly) through the eye from the underside—that is, the side the point of the hook is on, as it makes the fly lie on the water with head slightly elevated and each tiny jerk nods the head downward, while reverse occurs if inserted in reverse manner and the action is not near so lifelike and makes less ripple on the water. It also causes the fly to strike the water right side up usually.

Do not be discouraged if your first ones are crude—even they will catch fish in a way that will surprise you—and there is no end to the variation that will occur to you as you go along.

For instance, they may be made without the tail hairs and with the wings spread out so as to meet over the back, as are Nos. 13 and 14. (See page 119.)

The bodies may be made longer by glueing two corks end to end with shellac and then whittling them into the desired shape—No. 13 is made that way. A little light sealing wax may be melted and spread over the belly and then carved into most lifelike appearance with a warm knife blade point—or the sealing wax may be added till the fly no longer floats, but they are not so good when fished submerged.

In the illustrations herewith No. 9 has white deer, tail and wings, aluminum body and red head. No. 9 has seen real service and took one night between 9:30 and 11:30 over 20 bass, ranging from ¾-lb. to 2½-lbs. No. 10 has both tail and wings made from the creamy yellow hair from a Raccoon's tail, with a few Javelin bristles mixed in for support, has orange body and cream white head.

No. 11 has white tail, white and grey wings, orange body and red head.

No. 12 has pink and grey tail, white wings with a few strands of grey, yellow body and brown head.

Nos. 11 and 12 are early types of my work before I had learned to shape up the bodies so as to appear better—but they got fish just the same.

No. 13 has all white wings meeting over back, with double length body, cream colored with brown stripings in grooves and brown head.

The hook in this type emerges about midway of the body.

No. 14 has short, stiff black tail, wide spread heavy wings, very slender body and sealing wax belly. Wings are squirrel, body and head yellow.

No. 15 has tail and wings of mixed deer and squirrel grey in color, with some Javelin bristles, red body and cream head.

No. 16 has greyish tan deer hair in tail and wings, Javelin bristles in wings, aluminum body and dark red head.

No. 17 is made of the very red hairs from the underside of a rusty fox squirrel's tail, with Javelin bristles in wings and tail, orange body and cream head. These Javelin bristles are alternately white and black, the rings of color being arranged like the rings on a 'coon's tail and are quite showy in the water but quite stiff.

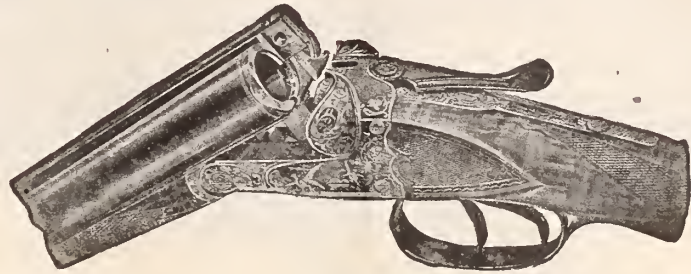
In winter, when I hunt, I secure and have dried or tanned the skins of various birds or beasts that have suitable feathers or hair, and in summer I return them to nature's haunts via the fly rod route.

Of course my wife objects, so I have surreptitiously arranged my office for my laboratory and I'm hoping that she'll continue attending strictly to her knitting and not come forth on a voyage of discovery.

Here's hoping you'll have as much fun out of making some "bugs" as I have, and while I hope your reputation won't suffer as much as mine has since I got "bugs" I'm not yet sure whether it isn't worth even that for after all "fishing ain't just catching fish."

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In any event, write for our special booklet, "Golf"—it contains the first Aeroplane Map of a Golf Course ever published in America.

A COMPLICATED FOX HUNT

(CONTINUED FROM PAGE 111)

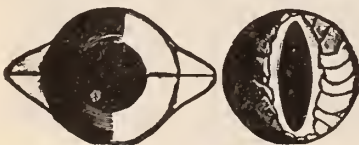
powerful blow dashed out his life? Had he stayed on land, we must have seen him; had he been in water, that possibility was slight. We talked and argued, thought and reasoned, and in the end grew strong in our conviction that the solution lay at the pond bottom.

Investigation, for the time, being complete, we restored the boat to its proper place, trudged along the narrow wood road that led from the camp to the main highway, and an hour later, stumbled into Mr. Hale's kitchen thoroughly fagged out.

The second day thereafter, the prevailing westerly winds having blown Hubbard Pond free of ice, we rowed along close to that section of the shore where the dog's body would naturally have drifted, in case it had floated. The search was unavailing. Still not satisfied, other plans were laid, and on the fourth day, we manufactured what, in war parlance, might be termed depth bombs. In short, we filled a pair of tin pails with sand, placing a heavy charge of dynamite in each. These we planted at the point of conflict. Two terrific explosions raised a great volume of water, best measured in tons, and much mud—but no dog! At that we had gone the limit. Time elapsed. Advertisements in the local papers went unanswered, while inquiries throughout the community likewise failed. The only light shed on the situation was the news that Sankey's former master had more than once punished him severely for driving deer. Gradually our thoughts and conversation shifted to other topics.

A WEEK from the day of our troubles and almost at the same hour in the forenoon, Mr. Hale and I drove into the farm yard, returning from a brief tour in quest of partridge. We were greeted with repeated shouts of "Throw up your hats; your dog's alive!" Our silent stare of "don't believe" brought forth the announcement that a message by telephone reported him held for us at a farm four miles distant. Those four miles we quickly covered; then the story learned, to find that this was what had happened. Sankey, having quit the chase for what no doubt he felt were his best interests, headed straight for home twenty miles away, in Fitchburg, Mass. Choosing as his route the western shore of Lake Monomonac, he came upon an attractive dead horse, on which he proceeded to make a meal. Promptly the hidden fox trap clamped a front foot. There was no pulling free. In the six days of bitter struggle that ensued, he had dragged the horse's head, to which the trap was clogged, a good half mile. Fortunately, fair weather, with moderate temperature, had been his lot; yet another twenty-four hours of exposure would probably have spelled the end. The trapper, for it was he who finally discovered Sankey, claimed to have tended his "sets" daily, but said

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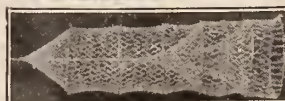
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WANTED—ACME FOLDING BOAT, GOOD condition. Harold Ortzel, 717 W. Michigan St., Indianapolis, Ind.

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GREAT DANE, FEMALE — SOUIA OF Hailon. Sire, Succabone Ecglafl. Dam, Countess Bessovof. Registered. Two years, seven months old. Fawn, excellent markings. Will sell at low figure. Gordon J. Platt, Highgate Springs, Vt.

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NORWEGIAN BEAR DOGS—IRISH WOLF Hounds, English Bloodhounds, Russian Wolf hounds, American Fox Hounds, Lion Cat, Deer, Wolf, Coon and Varmint Dogs; fifty page highly illustrated catalogue, 5¢ stamps. Rookwood Kennels, Lexington, Ky.

WANTED—BIRD DOGS TO TRAIN. GAME plenty for sale. Bird dogs and rabbit hounds on trial. O. K. Kennels, Maryland, Md.

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that he was unable to locate the missing trap. Be that as it may, one must be inclined to feel that an awkward, heavy clog, drawn over average ground, would leave some few traces to guide a careful searcher. Only by chance did the rescue happen. The trapper went bird shooting in the vicinity, flushed a partridge, fired, heard a dog howl, had a "hunch." One look at the dog's injured foot, together with his general weakened condition, caused us to send him by auto express to Fitchburg for veterinary attention.

Two months later, Sankey was fast recovering his old form, and, though nevermore in dog show class, promised again to be efficient on the trail. So after all, I for one was glad that the grand old buck of Hubbard Pond still lived. His splendid fight against big odds deserved no little admiration—he too had had a generous share of trouble.

LAKE ERIE HUT FISHING

(CONTINUED FROM PAGE 117)

twigs or other debris that floats around until finally it reaches the spear hole. If left remaining on the water, a very small piece of debris, no larger than a dime, becomes an eyesore and seems as big as the bottom of a tub.

And incidentally, one must have a piece of board to put over the fish hole when the pike is being taken off the spear, so that he cannot flop back into the hole. He is then tossed through the door to freeze.

At least one man in each group of huts carries a mariner's compass. Without it, though they might be only half a mile off shore, it would be quite possible for even experienced watermen to become lost and perish in the blizzards and swirling snowstorms that sweep Lake Erie in the months of January and February.

THE GULF RANGERS

(CONTINUED FROM PAGE 115)

for the night, and Hendry snoring, when Mr. King whispered across to his son:

"What did you see in the locker, John?"

"Birds—large white birds!" was the response.

"Many?"

"Not very many, sir. But this afternoon, when you folks were busy below, I lifted a hatch cover, forward. Down in a black hole there were lots of them—the same kind. Oh, I can't begin to tell you how many. What were they, father?"

"Egrets!"

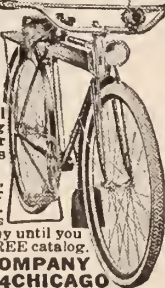
"But I didn't think people were allowed to kill them," John went on.

"It's against the law," said Mr. King. "John—our new-found friends are pirates, sure enough, and they are the cruellest of all the black tribe because they are preying upon one of our most beautiful and helpless forms of wild life. They are shooting up the Coast Lookeries."

(TO BE CONTINUED NEXT MONTH)

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Dept. H-42 Oshkosh, Wis.



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Beautiful new book of duck hunting stories. 20 half-tones of noted sportsmen, etc. Text by America's best writers. \$2.00.

W. C. Hazelton, 406 Pontiac Bldg., Chicago, Ill.



UNCLE SAM FISHING CONTEST

THE winners in the FOREST AND STREAM 1918 Bass Fishing Contest are as follows:

George C. Shupee, of San Antonio, Texas, secures the first prize of \$25.00 for the largest large-mouth bass caught south of the Mason and Dixon line with a 10¾-pound large-mouth bass taken from Medina Lake, Texas.

Jason Fred Diem, of Detroit, Michigan, wins the first prize of \$25.00 for the largest large-mouth bass caught north of the Mason and Dixon line with an 8-pound large-mouth bass taken from Watkins Lake, Michigan.

In the small-mouth bass class the first prize of \$25.00 for the largest small-mouth bass caught north of the Mason and Dixon line was secured by M. W. Malseed, of Philadelphia, Pennsylvania, with a 5¾-pound small-mouth bass taken at Noxontown, Delaware.

As no catch of small-mouth bass was reported from south of the Mason and Dixon line a special prize of \$15.00 has been awarded to J. G. Houston, of Brookline, Massachusetts, for a 5-pound 6-ounce, small-mouth bass taken at Plymouth, Massachusetts, and a special prize of \$10.00 awarded to Carlton West of Toronto, Canada, with a 4½-pound, small-mouth bass taken from Lake Simcoe, Ontario.

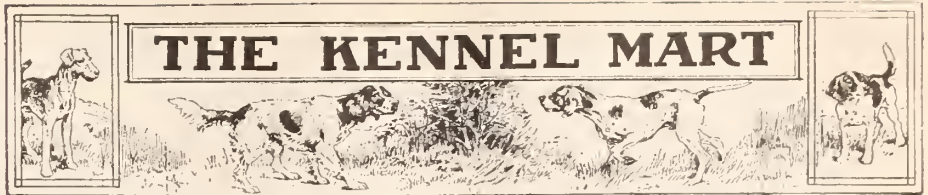
Checks for the amounts mentioned have been sent to the successful contestants and FOREST AND STREAM hopes to publish in the near future a contribution from each, telling the story of how he caught his prize winning fish.

A NEW HATCHERY

A NEW fish hatchery, with a capacity equal to any three American hatcheries, has been opened at Port Arthur, Ontario, under the direction of the Ontario Government. According to George H. Rapsey, superintendent of game and fisheries for the province, the new hatchery will be capable of controlling 90,000,000 fish eggs, all told, comprising 75,000,000 white-fish eggs and 15,000,000 salmon and brook trout eggs.

This makes the second large hatchery at Port Arthur, the Dominion hatchery looking after the restocking of Lake Superior and the provincial one caring for the restocking of the inland waters, of which Lake Nipigon and the Lake of the Woods are the most important bodies in the western part of the province, and the 1,500 lakes and rivers of Algonquin Provincial Park the most important in the eastern section.

Lake Nipigon has taken rank with Algonquin Park as one of the greatest fishing centers in Canada since it has been made more easily accessible to sportsmen from both Canada and the United States by the National Transcontinental. Algonquin Park has long been famous among sportsmen for the superb trout and for small-mouth black bass fishing in particular as it is literally a paradise of lakes and streams.



THE KENNEL MART

The publishers of Forest and Stream desire to inform the public that it is impossible for them to assume responsibility for satisfactory transactions between buyers and sellers brought in contact through these columns. This applies particularly to dogs and live stock. In transactions between strangers, the purchase price in the form of a draft, money order or certified check payable to the seller should be deposited with some disinterested third person or with this office with the understanding that it is not to be transferred until the dog or other article that is the subject of negotiation has been received and upon examination found to be satisfactory.

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A HIGH-CLASS REGISTERED AIREDALE Bitch in whelp to Champion Tinton Tip Top; great bargain. Caswell Kennels, Toledo, Ohio.

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REGISTERED AIREDALE-PUPS BY CHAMPION Tinton Tip Top. Big boned, husky farm raised puppies of quality. Caswell Kennels, Toledo, Ohio.

TWO HIGHLY-BRED FEMALE AIREDALES, 6 months old, Price \$15 each. Fine 60-pound Airedale stud dog, \$40. Female, ¾ setter, ¼ spaniel, good retriever, \$8. Mancelona Airedale Kennels, Mancelona, Mich.

WASHOE AIREDALES.—IN THE FUTURE known as "Lionheart Airedales." We regret to announce that the boys "coming home" have cleaned us out of all puppies under six months. None more for sale until April 1st. A few young dogs and bitches for sale at present from parents that are known from coast to coast as hunters and bench winners. Lionheart Airedale Kennels (Formerly Washoe Kennels), Box 1412, Anaconda, Montana. The quality remains the same.

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THE LARGEST AND BEST COLLIES IN this country for their age sent on approval Book on the training and care of Collies, fifty cents. Dundee Collie Kennels, Dundee, Mich.

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FOR SALE—HIGH-CLASS WALKER FOX hounds. Broken right and can deliver the goods in any company. Price, reasonable. Stamp for reply. Arthur Sampey, Springfield, Mo.

IRISH WOLFHOUND. MALE, EIGHTEEN months old. Also nine good Russian Wolfhound puppies. Penwood Kennels, Reg., Sparrow Point, Md.

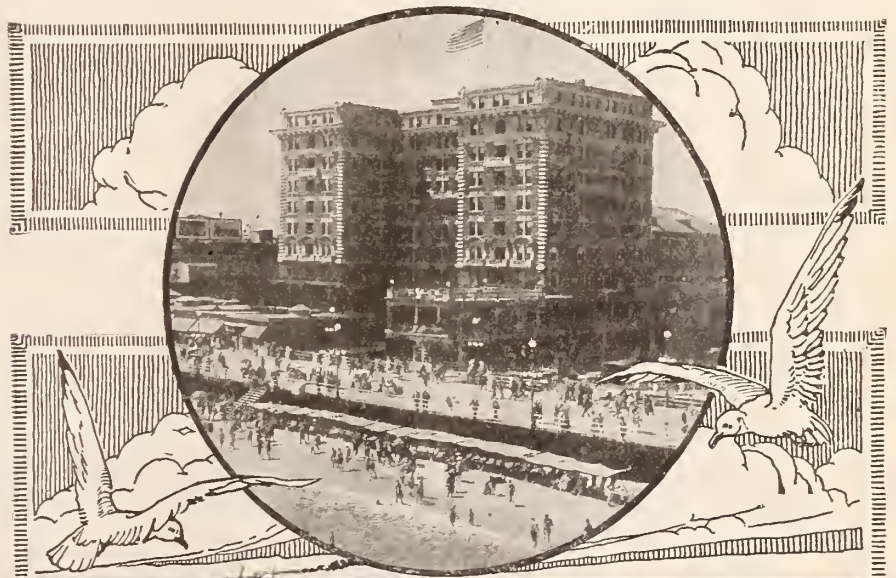
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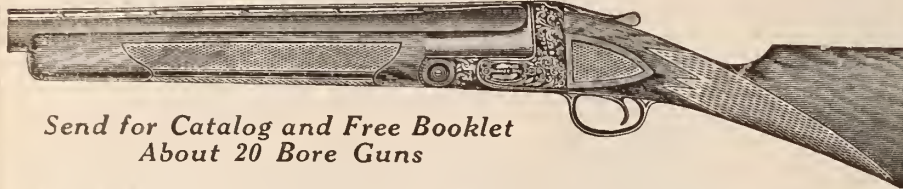
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A PAINTER OF FISH



HOSE of our readers who admire or possess copies of the fish pictures by H. A. Driscole, which appear on the covers of FOREST AND STREAM from time to time must know instinctively that the artist is himself a fisherman and a graduate of the

great school of out-of-doors. Of course there was a time when he studied technique and at that period he had the advantage of working under George L. Frankelstein, the landscape painter.

But there is quite a difference between an urban studio and Mr. Driscole's present work shop—the later being nothing more or less than a canoe on Lake Mohegan, New York. Fishing and painting in a canoe seems incongruous to most of us, for those of us who wield the paddle usually fight shy of the brush and vice versa, but Mr. Driscole is quite original in that and declares that there is no other way in which he can get bass and trout in action. By means of snubbing and rapid brush works he gets his models into just the desired position and then obtains the light effects and varied colors which make his canvasses so full of vitality. As far as the anatomy of fishes goes Mr. Driscole has long had that down to a fine art and it only takes him a few minutes to block in his work.

Lake Mohegan is not very far from New York and if the fish there really are as full of fight as Mr. Driscole portrays them then a trip to the lake would be well worth while.

NATIONAL RECREATION GROUNDS

LAST year the National Forests provided \$7,500,000 worth of recreation to the people of the United States, according to a statement of Landscape Architect Frank A. Waugh in his publication "Recreation Uses on the National Forests," just issued by the U. S. Department of Agriculture.

The Government charges no admission fee to these great recreation grounds, containing some of the finest hunting, fishing, and camping places in the world; but if citizens had paid the minimum price demanded for wholesome recreation by commercial dealers in that commodity, and willingly paid by the public, the total would have reached the above amount. More than 3,000,000 people spent on the average not less than 25 hours in the Forests, so that the number of hours of recreation was at least 75,000,000. A valuation of 10 cents an hour equals the cost of a cheap movie. But the charge to the public for hunting or fishing, for visiting the wonders of the National Monuments, for access to some of the finest scenery in the world, for automobiling and picnicing was nothing—a low enough price to pay for \$7,500,000 worth of recreation.

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A LESSON IN FAITHFULNESS

(CONTINUED FROM PAGE 123)

out there in that great pack of floating ice." "Oh, he'll get in, I guess, sometime," said Ned slowly. "Anyway, I won't give him up. I tell you what, we'll go up to the cabin and make a fire and have some coffee. Then if he isn't back by that time, you can light out for home if you like, and I'll wait for him."

Jim agreed to the proposal, and was soon sitting by a crackling blaze in the cabin while Ned heated some coffee he had brought, and opened a package of sandwiches.

"Well," said Jim at last with a yawn, "it's nearly twelve, and I think I'll make a break for town. You'd better come along. If the dog makes shore at all he'll follow on home."

"No," said Ned, "I'll wait. You take your pick of the two birds, and I'll go out and rustle up some more fuel."

They parted outside the cabin, Jim making for the road while Ned took the path to the beach. The moon was well past the meridian, the shadows had shifted around the bluff, and the outspread marsh had taken on a new aspect. The icy wind soughing among the reeds, the water lapping on the beach, and the grating of broken ice were the only sounds to break the stillness. The low line of the farther shore across the bay was a mere melting shadow, and occasionally, far out, a deeper, moving shadow and twinkling light revealed some vessel making up to port. The compelling beauty of it all held the man as he gazed awhile. Then the chilling wind brought him to action, and collecting an armful of driftwood he returned to the cabin.

THUS the night wore on. He dozed a little by the fire, rousing now and then to throw on another stick, or to go to the door and look out, or to stroll about outside and bring in more firewood. He fell asleep finally, his head on his arms folded upon the table, and waked at last with a start. The lantern was flickering out, the fire had died out to a few red coals, and there was a chill in the air. He threw on some wood and by the blaze looked at his watch. It was nearly four. Then he went to the door and looked out. In the west the moon was sinking behind the trees that edged the road, which looked dim in the paling light and lengthening shadows. He swept the scene with a disheartened glance, there was no living thing visible.

"Not much use waiting longer," he thought as he shut the door and went back to the fire. He sat awhile gazing gloomily into it. Until now he had not known how much he really loved the dog. Perhaps Jim was right and he had been swamped in the floating ice, worn out by the vain effort to effect a landing. The thought caught him in the throat and choked him, and made him restless. He got up and went outside, pacing to and fro with his eyes on the road. After all these hours that was the only way the dog could have come. Reluctantly at last he turned again

toward the cabin and paused at the threshold for a last searching gaze. Was that—could that be a moving shadow by the bush where the path and road met?

He took a sudden step forward and waited. Yes, surely it moved, turning slowly into the path, advancing slowly. Yes, it was the dog.

"Tony!" he shouted excitedly. The dog quickened his pace a little, hampered as he was, and as his master reached him laid down the great dead bird, and looked up for approval. Ned was down on his knees, a hand on each shaggy ice-covered ear, shaking the big head slowly as he half-sobbed:

"Why, Tony, old boy, good old boy."

Later, in the cabin, having eagerly devoured the remaining sandwiches, Tony lay before the fire gnawing the ice from his shaggy legs and paws, and finally stretched himself for slumber, while the ice that entirely covered his thick coat, slowly melted in the heat and formed puddles around him. Underneath that icy cover the soft, fine, close hair next the skin was warm and dry.

Ned sat and watched him, pondering deeply. Visions rose before him of the long hours of battling for life and duty in that icy water, and of weary travel after landing. Six miles fully by the road, he knew it well, and more by the shore-line. A lesson in faithfulness surely! Time wore on; again the fire died down and an intense chill crept into the little room. The dog was growing restless in his sleep. Ned roused him with a word, then raking out the fire he made all safe and left the cabin. The moon had set, the wind had died, and in the weird stillness and grayness of approaching dawn the man and dog took their homeward way.

THE ENGLISH SETTER CLUB OF AMERICA

THE English Setter Club of America announces that the 14th Annual Fields Trials will be held at Medford, N. J., starting April 1, 1919.

As usual, five stakes will be run—the Members Derby and Members All-Age, open only to English Setters owned and handled by an amateur member of the Club; an Open Derby and Open All-Age, and a Free for All, open to all Setters, Pointers and Griffons.

The Club has the privilege of running their trials over the farm owned by the "Friends of the Hunting Dog." This property contains 155 acres, on which have been liberated a number of Bob White Quail and English Pheasants; in addition to these enough new birds will be liberated during the running to assure every dog an ample opportunity to show his bird finding ability. It has been found that the English Setter Club's plan of running all dogs over the same course known to hold birds proves the fairest to all competitors. The inaugural trials of this Organization were held on the property of Mr. George C. Thomas, Jr., at Chestnut Hill, Pa., with only sixteen

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starters. From this small beginning it has grown to be the largest Amateur event of the year, with over 150 entries.

The English Setter Club is a member of the Amateur Field Trial Club Association and winners of first in the Derby and first and second in the All-Age and Free for all are eligible to compete in the Amateur Championship if, when making these wins, they are handled by an Amateur.

Medford, N. J., is located on the Pennsylvania Railroad, about fifteen miles from Camden.

The Club takes this opportunity to extend to all owners and breeders of bird dogs a cordial invitation to become one of its members and attend these trials. Full information can be obtained by communicating with the Acting Secretary, J. Craig Huff, 1301 Morris Building, Philadelphia, Pa.

THE AIREDALE AS A HUNTER

ALTHOUGH the sporting possibilities of terriers have usually been limited in popular opinion to rat killing, within recent years many sportsmen in all parts of the country have come to realize that the Airedale, by virtue of his unusual physical qualifications of size, strength and coat, his remarkably keen nose and wonderful intelligence, possesses a sphere of all-around usefulness to the sportsman that is not approached by any other breed of dogs. In disposition a young Airedale terrier, like a healthy growing boy, is all energy, dash and go. He doesn't want to keep still and it is impossible for him to do so; he has got to be doing something. With it all, he is full of life and pluck. When taken out for a ramble he goes trotting about here and there, looking for something to worry, now working his way laboriously through a brush-pile or under a hedge, now peering expectantly into some burrow which he enlarges with a few vigorous strokes of his sturdy paws. It is this healthy independence of character and aggressiveness of spirit, properly developed and controlled, that makes the finished Airedale the most useful of all-around hunting dogs.

Airedales take as readily to hunting rabbits as they do to killing rats, and will work brush piles and hedges most industriously. They will jump rabbits, that may be shot in front of them or whose trail may be taken up by beagles and hounds. Although Airedales have good noses, they are not as keen as a hound and cannot distinguish between fresh and old tracks and are apt to spend a good deal of time pottering on old trails or working on a back trail. They can be broken of this fault, or rather, they can be kept from getting into the habit, by taking them out early in the season and getting them to work on young rabbits that are in the meadows and orchards or along the thickets, before the latter have acquired much cunning or taken to holing. At this time rabbits are easily caught and the puppy, as soon as he has run one down, will start hustling about to jump another.

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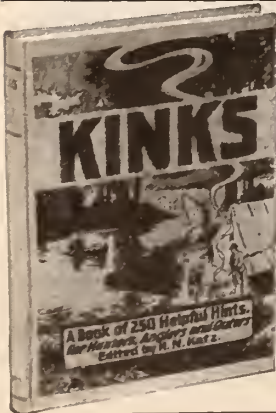
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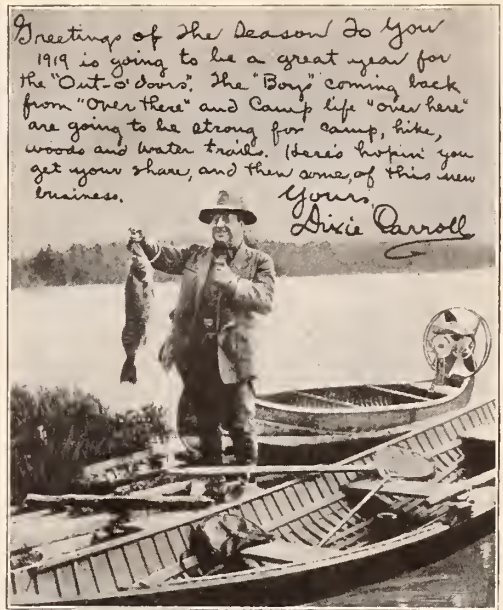
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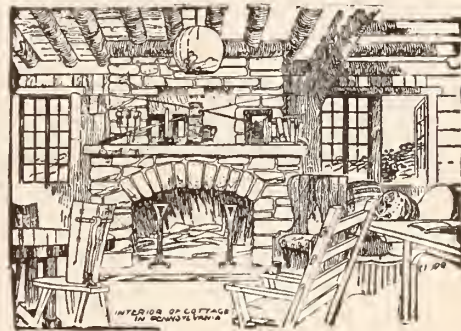
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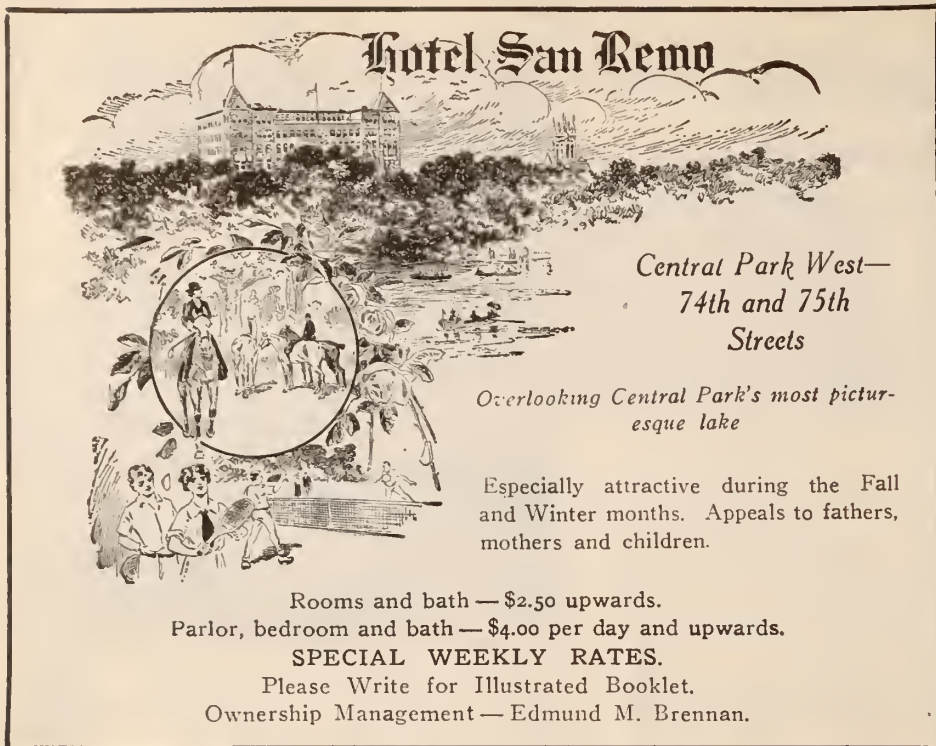
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State of New York,
County of New York,
ss.:

Before me, a Notary Public, in and for the
State and county aforesaid, personally appeared
J. T. Wood, who, having been duly sworn accord-
ing to law, deposes and says that he is the Busi-
ness Manager of the *Forest and Stream* and that
the following is, to the best of his knowledge and
belief, a true statement of the ownership, manage-
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of the aforesaid publication for the date shown in
the above caption, required by the Act of August
24, 1912, embodied in section 443, Postal Laws
and Regulations, printed on the reverse of this
form, to wit:

1. That the names and addresses of the pub-
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Publisher, Forest and Stream Publishing Co.,
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Editor, William Bruette, 9 East 40th St., N. Y.
City.

Managing Editor, William Bruette, 9 East 40th
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2. That the owners are. (Give names and ad-
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J. T. WOOD, Business Manager.
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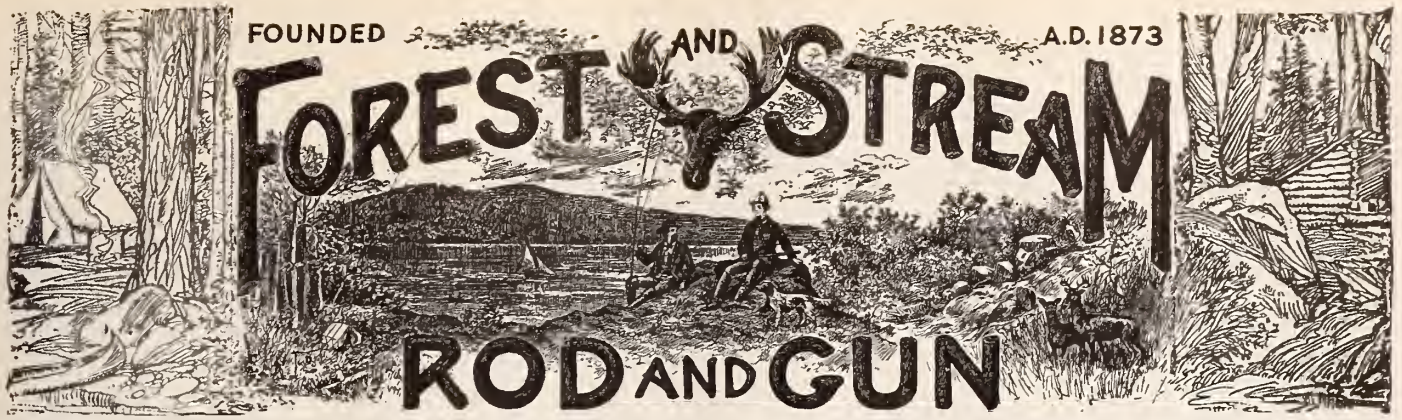
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A SPRING BEAR HUNT IN CASSIAR

UP THE STIKINE INTO A REGION OF GREAT MOUNTAINS, BLUE GLACIERS AND LONELY VALLEYS AT THE TIME OF THE NORTHLAND'S AWAKENING

BY ARTHUR H. BANNON

MANY big game hunters have hunted the mountain ranges of Cassiar in the vicinity of Telegraph Creek during the month of September and early in October. Very few hunters have undertaken a spring bear hunt in that vicinity. Examine a map showing the course of the Stikine river in western British Columbia and it will be seen that this river empties into the Pacific near Wrangell, Alaska. About one hundred and forty miles up the river the Clearwater flows into the Stikine and about twenty-five miles farther up the Stikine is the village of Telegraph Creek. It was along the Clearwater and the Stikine that I determined to take a short spring bear hunt because I knew that the bears were there and because little is known of that territory as a game range.

In 1891 Messrs. Clive Phillips-Wolley and Arnold Pike hunted bear along the Stikine in October. Unfortunately they selected the rainy season for their hunt and obtained a most unfavorable impression. In the first volume upon Big Game Shooting in the Badminton Library Mr. Wolley thus describes the gloom that surrounded them:

"The part of Alaska in which we were hunting in 1891 appears to have escaped from that process described in Genesis by which the waters which were above the firmament were divided from the waters which were under the firmament.

On the Stikine river there is no firmament. As a rule, a damp darkness broods upon the face of the deep, and the waters which should be above touch and mingle with the waters which should be below. There is no dry belt between the bottom of the sea and the roof of heaven, at least in that district which lies between Wrangell and Telegraph

unusually severe in Cassiar so the ice was not out of the river until May fifteenth and when the channel was finally cleared I was ready to go for I had been waiting at Wrangell four days.

With the last of the ice came the man with whom I hunted, Mr. A. B. Conover. He is one of the best companions of the many men with whom I have associated.

He had drifted down behind the ice in a Peterboro canoe, and as we went up the river I could see by the floes still gorged in places that he had taken some risk in coming so close behind the ice. With him was a Stikine river trapper whose supply of white man's food had given out a month before the river ice broke up, so he had nothing to eat except beaver meat during that time. But he lost nothing in the way of white man's food as he soon made up for lost time.



Is this a Glacier Bear?

Creek, in the month of October."

During May and early June I found the weather conditions just the reverse. But, of course, in the autumn the weather conditions along the Stikine in the vicinity of the Coast Range where Messrs. Pike and Wolley were hunting, are just as described by them. Though farther to the east in the Telegraph Creek region the September weather is usually pleasant.

Ordinarily one can go up the Stikine in the spring early in May after the ice has run out, but the winter of 1917-18 was

UP THE STIKINE
THE Stikine being clear of ice, the first gasoline boat of the season soon started for Telegraph Creek and we were on board. This boat carried the first supplies taken to that region since October. I had been over the route in the fall of the year and thought it a beautiful trip in spite of rains and mists that prevail during the autumn; but this time we had perfect weather.

From the shore lines up to the highest peaks the snow was from three to twenty feet deep. Everything was white except



The cabin of a gold prospector

the river and the dark cliffs here and there in the mountains too steep to retain the snow. Winding in and out through the canyons and flats with the bright sun overhead and the glistening white mountains on either side was most enchanting.

Everything went well until some water in the gasoline caused the engine to stop and we drifted at the mercy of the swift current. We had no anchor, a serious oversight. Conover and one of the crew took the end of a rope and pushed off ahead in a canoe as the rope was played out to them until they got far enough in advance of the boat to drop ashore and take a hitch around a fallen tree and secure the boat to the bank. We had gone about one and a half miles in a very short time, and it is due to the skill of our pilot that we kept in deep water and clear of snags.

The long daylight enabled the boat to travel all one night and lay up but five hours another. On the way up we met three parties of Indians from Telegraph Creek who had followed the ice for the purpose of trapping beaver.

We reached Conover's cabin early in the morning of the sixteenth. It is located about five miles above the Clearwater and is all alone in a big cottonwood flat. When the cabin was built it was near the deep water, but now the channel has moved to the other side of the river. The channel of the Stikine is ever changing.

SAVED FROM REMORSE

WEARIED from our two nights on the gasoline boat we slept after breakfast and then adjusted an out-board motor to the canoe. By the time that was finished I located a bear feeding on the mountain side across the river. An examination of the surroundings with a field glass indicated that he might be reached from an old mining trail which passed below him. It must be borne in mind that everywhere, except immediately along the shore line, the snow was still deep and soft in the daytime, so that going to a bear by direct line was impossible. We tried the mine trail after dinner but could not make it.

did not think of the remorse until after I had missed the shot, which is poor ethics.

UP THE CLEARWATER

EVERYTHING was now in readiness for a hunt of several days up the Clearwater. Our object was to get to its headwaters as soon as possible and then float back in the canoe, hunting on the way, thereby enabling us to make the hunt in comfort and without the discomfort we would encounter in the deep and wet snow. Floating with the current our movements would be noiseless and hardly noticeable to game near the river. Trout fishing along the Clearwater was excellent. By putting out a set pole baited with meat we could almost invariably land a two or three pound trout upon return to the pole. With rod and reel I caught a Dolly Varden weighing about four and one-fourth pounds and twenty-seven inches long. It put up an interesting fight. Ducks were flying in abundance, having returned from their winter in the south.

On our return we passed a miner's cabin and, borrowing his fishing pole and line, caught several mountain trout at the mouth of a small brook. Where the clear mountain stream met the muddy river there were plenty of trout. After supper I saw another bear in a much nearer place. Tried for him also but when I reached the location where he had been he had moved so high up among the rocks and brush that it was too late to reach him.

We spent the next day in the canoe slipping noiselessly along the river and through some sloughs watching for grizzlies, but saw none. They hibernate at higher altitudes than do the blacks and the deeper snow higher up was evidently keeping them in.

We saw four or five black bear that day. One we stalked to within about one hundred and seventy-five yards and from a steady rest I overshot. She had a cub with her and my poor marksmanship spared me the remorse which might have resulted from having made a cub bear an orphan. I saw the cub before I shot but

However, we were neither fishing nor duck hunting but looking for the grizzly bears that hibernate in dens in the higher altitudes and leave their winter quarters in the spring with the disappearing snows. These bears as a rule are better furred than those feeding on the salmon and living near the sea. The coats of the latter are often badly rubbed, mangy and coarse. But this spring the disappearance of the snow was tantalizingly slow. As we could not find any bear tracks in the snow we were forced to the conclusion that the unusually late spring was prolonging their hibernation. There was feed for them in abundance along the river. The odors borne by the breezes announced the presence of many carcasses of salmon that died late the previous fall, and had been frozen all winter. We passed the unmolested remains of two moose, equally redolent. These moose had drowned in attempting to cross the ice, for even in this cold climate the swift water or some warm springs on the bottom of the river may render certain places dangerous to heavy creatures crossing on the ice.



Running ice in the Stikine River



The nest of the wild goose

IN DEEP SNOW

ONE morning Conover, after crossing the river in the canoe, went over a wide flat to one of his cabins. I remained in camp, fishing and watching for bears. Soon I saw a grizzly about a mile away coming up the middle of the flat Conover had crossed. About the same time Conover started upon his return, he and the bear traveling at right angles towards each other. For a while it looked as though they would either meet or discover each other. The bear was laboring through deep snow, which gave way under his weight, and Conover had his head down following his old footsteps in the snow and picking his way to avoid the soft places. I could not get his attention without alarming the bear so I remained quiet and he passed about one hundred and fifty yards in front of the bear and in full view of him. Each was too busy with the snow to see the other. As soon as Conover crossed the river we returned to head off the bear if possible. But he reached the timber and disappeared. I followed as fast as I could and had the bear gone either up or down the river one of us would have seen him but the wily old rascal went straight up the mountain side which lay on the other side of the flat. His trail led up the trunk of a leaning tree and into the heavy timber where I lost it. It was too steep to follow without using my hands to aid in climbing, and in such cases I want my hands employed with a rifle. Had I any idea the bear would take straight up the mountain side I probably could have seen him going up in front of me but I kept watch up and down the valley as I expected him to take that course.

We went up the Clearwater until the mountains with their many glaciers were closed in about us and the valley was quite narrow. Then, as we desired as wide a view as possible for grizzly bear hunting, we decided to return and look for bears lower down where the season was farther advanced.

The mountains at the head waters of the Clearwater which form the interna-

tional boundary line between the United States and British Columbia are so inaccessible on account of the snows and glaciers that the boundary line has never been accurately located and marked, nor have the peaks along the watershed between the Pacific and the territory inside been identified. This in spite of the fact that several expeditions, composed of engineers from both the United States and Great Britain, have attempted it. The reason is obvious. In winter there is too much snow and in summer the thawing makes it dangerous from snow slides, glacier movements and mountain torrents.

The canoe trip down the river was most delightful. My companion made me feel perfectly safe while the canoe was as steady as an ocean liner and traveled fast. We saw some goats feeding among the cliffs, where the snow had melted off. They were well down on the mountain

side but the season on goats was closed so we did not stop. We also passed some moose standing by the bank of the stream, and they permitted us to come quite near to them before shying.

IS THIS A GLACIER BEAR?

WE saw bear tracks along the snow but no bears until we came upon the carcass of a moose drowned while attempting to cross the ice during the winter. The carcass was on the end of a small island about ten yards from the main shore and a bear was in possession. We drifted swiftly for a hundred yards or so until within about fifty yards of the bear when I shot him in the breast, the bullet passing through and breaking his neck. He fell into the water and for a while it looked as though he would sink for his head went under as he struggled to keep his feet. With the tenacity of bears, however, he slowly dragged himself through the water and up the bank on the main shore. My companion held the bow of the canoe towards the bear as we floated past him and advised me not to shoot again until he was out of the water and had reached a place where we could get at him. I did so. He would weigh about three hundred and fifty pounds and his prime coat of long silky hair is black as coal, except on the sides, where it is a beautiful grey. He also had the usual brown markings of a black bear about the face and his whole makeup was undoubtedly that of the ordinary black bear species, but the grey sides made him unique and his skin by far the handsomest seen in that country in many a year.

The coloring of the fur of this bear is so unlike that of other black bears that the interesting question has been raised as to whether it is a glacier bear. That it is unusual is attested by the fact that I am offered for the pelt what to me seems a very large price. But I neither buy nor sell game or any part thereof. My experience in bear hunting has been



Mountain sheep crossing an ice bank



A vision of ice-bound ranges from the shores of the Stikine

limited to hunts in Montana, the Bitter Roots in Idaho, on the MacMillan in Yukon, the Nahlin District in Cassair, and this hunt on the Stikine. My kill of bears totals five grizzlies and two blacks so I cannot say from personal experience that this bear is a glacier bear. Of the many bear pelts that have come under my observation at trading posts none were like this one though of course I have seen black bears that were grey with age.

Mr. E. W. Nelson in the National Geographic Magazine for November, 1916, states that "the glacier bear is an Alaskan animal, which occupies the seaward front of the Mount St. Elias Range, about Yakutat Bay, and thence southeast to Glacier Bay and a short distance beyond to the interior."

To be sure the bear that I killed was not within this range but it was near Alaska, not far from the sea and in a country where there are many glaciers. So location decrees that my bear is not a glacier bear.

But Mr. Nelson further tells us that it has been established by abundant proof that the glacier bear is "merely a color phase of the black bear." If the color may determine the species I may have the right to claim a glacier bear. "Its color," says Mr. Nelson, "varies exceedingly, from a light smoky, almost bluish, gray to a dark iron gray, becoming almost black. Some individuals are extraordinary appearing beasts, quite unlike any other bear." That is a good description of my bear. But Mr. Nelson's final observation that "the interest in this curious color development is increased by its restricted distribution" may deprive me of a glacier bear trophy which he states "is a highly prized trophy" if taken in a fair stalk.

As all good bear hunters should do with unusual bear trophies I shall, in due time, send the skull to C. Hart Merriam and the pelt to E. W. Nelson for examination. Should they say this bear is not of the coveted type the incident will be closed as far as I am concerned.

SOME OBSERVATIONS

THE Clearwater is about seventy-five miles long and flows from the east side of the Coast Range into the Stikine. The country drained by it has a fine climate on account of its location east of the Coast Range and away from the mist, fog and rain that make the Pacific coast in Alaska so intolerable.

During the days spent on the Clearwater we had perfect weather, not a drop of rain nor a flake of snow; cold and frosty at night and warm in the daytime. The snow would bear our weight until about half past eight in the morning and then lookout. After that one would flounder to almost any depth. There was no place to walk except along the river's edge where a slight rise had melted the snow from a narrow strip of land. We worked early and late, often leaving camp at six in the morning and not returning until eleven at night. But as the days were long there was plenty of light until late and practically no real darkness.

We saw many ducks of many kinds and among them the beautiful harlequin duck. The spring days had brought the robins, thrushes and fly-catchers, the latter to feed upon the flies and mosquitoes which come as soon as the snow begins to disappear. Eagles and fish hawks were seen every day, and their many old nests in unprotected places demonstrated that in this out of the way place the birds were unmolested during the nesting season.

The evidence that this is a favorite nesting ground was so apparent as to call for the reason. Conover explained that the existence of many nests is due to the fact that during June and July the river is so high on account of melting snows that it is impossible for one to take a boat up the stream and, there being no trail for men through the impenetrable brush along its shores, the birds are not disturbed by human beings. None but a trapper would desire to go up the Clearwater and that river and its immediate confines are recognized as Conover's domain. By the custom of trappers he hunts and traps there without interference. Another reason why others, and especially the Indians, do not trap in this region is the very hard work necessary at any time to ascend the swift current. Therefore there is no disturbance of these nesting birds.

The valley of the Clearwater for the most part is from one-half to a mile in width and the stream cuts through it in a winding course. Here over wide flats and in narrow canyons and there through several channels. Cottonwoods, willows, alders, birches, and quaking aspen predominate among the deciduous trees, and spruce, balsam and pine among the evergreen trees. Everywhere the underbrush is so dense as to be impenetrable.

We ate beaver meat occasionally and fish when we wanted them. A full grown beaver weighs about sixty pounds and the hams make a good roast. When sliced cold this flesh is good for lunch. I shot a muskrat and ate it and found it fully as good as the beaver. A remarkable thing about the diet of the inhabitants of that country is that they do not eat



The cabin of Mr. and Mrs. Jackson on the Stikine



Indians follow the run-out of ice in order to hunt beaver

bacon, or care for it. I made a present of a piece of excellent bacon to an old prospector who had lived on moose meat and fish all winter but he promptly returned it with thanks.

UPON our return to the cabin on the Stikine we met a young American twenty-four years old who had just come out of the mountains where he had been for a year with an uncle prospecting for gold. As I am always prone to ask questions I learned that he was eligible for the United States Army and had never registered. He said that he had thought of attending to it sometime, but upon my explaining to him the penalties for not having done so, he decided to attend to it at once. Like a good loyal American he went to Wrangell and registered.

This boy told us that for the two or three days before leaving his uncle's cabin five grizzlies had been loafing about their mine and that he had seen another on the trail the day before. It was a twelve mile hike to that cabin and as it looked like a good bear hunting prospect we went there and though the boy's uncle corroborated the boy in every respect, we did not see any bears but found the tracks of the one the boy had seen on the trail.

The reason the boy did not go after the bears was that he had lost confidence in himself and his gun, as the result of having been obliged to take to a tree occasionally so he preferred to adopt the Golden Rule respecting bears, and especially grizzlies.

His uncle was the old prospector who did not like breakfast bacon. He cooked with moose fat, ate dried and corned

moose meat, raised very good potatoes, and had worked until he had crippled himself, all for the hope of gold. He took me to a pit of gravel and washed a panful for my benefit showing me with pride the five little specks of color left in the bottom of the pan. He used a cradle and a rocker, sluice-boxes, and other primitive methods and had about three hundred dollars in nuggets and dust for his year's work. He was writing letters outside inviting men with money to come and invest in machinery and get rich quick, and at the same time help him to get rich.

There was such a marked difference in the climate along the Clearwater from that along the Stikine, that we decided to start slowly down the Stikine and hunt as we went hoping to find the grizzlies out farther down the river and nearer the ocean.

We had no sooner started down the swift flowing Stikine than a strong head wind made it so uncomfortable for us that we laid by at Mr. Frank Jackson's cabin and hunted and visited with him and his wife for two days. Though we were royally entertained and urged to stay the relentless advance of time obliged us to pull out and buck the wind. The Jacksons had lived there all winter practically alone so were delighted to have company even if only bear hunters.

Our hundred and forty mile trip down the river carried us through regions comparatively free from snow to others where the snow still lay from five to fifteen feet deep down to the water's edge. In the former location the trees were leafing out and many varieties of birds were there even to the humming birds.

Such differences in climate within such a short distance one cannot imagine. Why it is so I do not know unless it is the presence of the immense glaciers.

THE BIG GLACIER

ONE night we camped on the opposite side of the river from the glacier locally known as the Big Glacier. The length of this glacier has not been ascertained but it has been explored by an international exploring party back to the west into the Coast Range for about forty miles. It presents a front on the river of more than a mile in width. It is usually quite dormant though once every summer an immense flood of water breaks loose from somewhere within its confines and floods the entire country at its mouth, and during the few days it takes for this water to spend its force the Stikine is very dangerous and often unnavigable in that vicinity.

The big glacier cracked and groaned all night and made noises not unlike a large rock slide in full motion. The noise at one time was enough to wake me. My companion thought it a snow slide for there are many in the mountains during the periods of heavy snow. The next morning the whole front of the glacier showed fresh earth and rock heaped up in a great ridge on top of the snow indicating that the glacier had started to move and was pushing the terminal moraine ahead of it. Across its front it had the appearance of a large newly made fill composed of loose earth and rock, and behind it lay the great ice gorge cut in every direction by immense crevasses.

(CONTINUED ON PAGE 184)

BYGONE DAYS ON CADDO LAKE

REMINISCENCES OF FISHING AND SHOOTING TRIPS ON FLAT-WATER IN EASTERN TEXAS WHICH WILL STIR THE MEMORY OF MANY A SPORTSMAN

By J. A. PHILLIPS

"CADDO LAKE" is a household phrase familiar to me since I was a very small boy, the mere mention of the two words would make my boyish heart quicken its throbs long before I could be trusted to handle a gun, for as small as I was I had already heard many recitals about the fine shooting and fishing to be had there.

As to when and how Caddo Lake was formed, none of the oldest among us could ever say, neither could we arrive at a conclusion from the legend left us by the Caddo Tribe of Indians, after whom the lake took its name. But we do know the lake has been used as a water way for boats for about a hundred years, as during the early settlement of eastern Texas the waters of Caddo were at the

a depth of three to eight feet, many cypress trees, the kind that are very large at the trunk and very short in height are to be found all over this flat water, and since these trees are usually in clusters and well draped with long festoons of Spanish moss, it makes an ideal spot for fishing. The waters of Caddo are usually clear, but there are times when we have continued rain and the farms along its borders are freshly ploughed, that the water is colored and unfit for the desires of the angler.

DURING the winter and spring months the waters of Caddo were usually flooded, but along in the following summer of each year the waters become low and islands would spring up

moving the dam was not what was expected and it was not very long ere the promoters of the scheme felt the shock of many investives that were openly flaunted at their heads, so in short an effort was begun to repair the folly that had been imposed on the public and work set about to build another dam. Several years passed, however, before anything could be done and during this time a thicket of small cypress trees sprang into life over all the islands that once furnished us such fine crops of duck grass each year. These cypresses continued to grow after water was again forced over the land by the building of the new dam and are to-day young trees forty feet high and very full of life. It of course goes without saying, Caddo was practically without any food to offer the passing flocks of wild-fowl and is to-day a shadow of her former self as a wild-fowl resort and a monument to the folly of a few men. The writer wishes it understood there were no sportsmen in any way connected with the miserable undertaking.

Of course the fishing was hurt too but after the new dam was built the lake soon recovered and it was not long before the angler could find sport equal to the days of the long ago. The fishes most commonly found in Caddo, are the largemouth bass, crappie, warmouth and all the smaller members of the sunfish family, also may be taken the white-bass (*Roccus Chrysops*) and his smaller brother, the yellow bass (*Morone interrupta*). These fish are frequently found during March and April in large schools and furnish fine sport for the fly-fisherman. Of course the cat family has a representative or two and also the buffalo sucker and the gaspergou (fresh-water drum) are plentiful. Small hickory shad, locally called shiners, furnish most of the bait used. The style of fishing on Caddo has changed little from the way it was practiced away back yonder, a cane pole anywhere from ten to fifteen feet in length, line almost as long, with hook, float and lead sinker completes the requirement; the fisherman must have a good boat and a willing son of Ham as boatman, the boatman baits the hook, lands the fish handles the boat and generally does the laughing.

WHEN the writer lived in Marshall, Texas, during years that are gone by, he too fished with the old cane pole and the same rigging as mentioned on the many trips made to Caddo, but being a bit progressive the long cane was put aside for an eight-strip bamboo bait rod, a Meek reel and fifty yards of the best silk line. Of course I did not get any greater number of fish with the "dude tackle" as it was promptly called, but I'm sure my friends of the angle will join me in saying my sport was enhanced a great deal more by using it.



A view of the flat-water, Caddo has many thousand acres just like this

head of navigation and instrumental in furnishing all of eastern Texas with its much needed supplies. Were I to guess at its age, I should say it was several hundred years old.

The most plausible theory we have by which to figure as to how the lake was formed, is that where the lake is situated, was originally a network of cypress bayous converging close to the point of outflow into Red river. The rise and fall of Red river pressing against and holding back the waters of the numerous bayous caused a collection of debris and a network of floating logs to form a dam that was strengthened and so perfected by age as to hold empounded the big body of water we have always known as Lake Caddo. This lake is situated in eastern Texas, close to the Louisiana line and in fact a portion of the lake is in the state of Louisiana. It is something like forty miles in length and attains a width of nine miles at its widest point. While as I have said the lake is composed of many deep channels and you cross and re-cross them almost any direction you choose to go, yet there are thousands of acres of

in what is known as flat-water, maintaining all over the lake. Some were small and some embraced hundreds of acres, all soon to be covered with a rank growth of grass, which was of two varieties, wild rye and what was known as crow-foot grass, both most excellent duck food. Situated as Caddo is, it was the home of wild-fowl and geographically so placed as to get the ducks that took the Mississippi flight of migration; I know of no place in America that has furnished better wild-fowl shooting than Caddo, and the same can be said of its fishing. The above description given of Caddo was as I saw it fifty years ago when I was first trusted with a gun and permitted to visit its shores for shooting and fishing; since that time many changes have been made. About thirty years past a number of men possessed with innate curiosity or a desire to grab some land, made a united effort and succeeded in getting an appropriation by which the dam that old mother nature was kind enough to make, was blown out, and as a consequence all the water in the lake went with it. The result brought about by re-

In the year 1890 business demands forced me to quit Marshall as a place of residence, but I remained in Texas. With me I took my love for Caddo and there never passed a spring or fall that I did not experience that great desire to return. I was fortunate in having a business that I could leave occasionally and devote time to my happiest recreation, fishing. I had to make new friends, fish new waters and it was not long until I began my ascension to that last and highest plain of the sport, fly-fishing. Like most of those who live in the south, I naturally thought one would have to go much to the north before fly-fishing could be practiced successfully, but in a short while I found I had labored under a very great mistake, as on every piece of water I cast my fly I found the big-mouth bass ready to take it, and more than that, all the lesser members of the sunfish family were just as eager for the fly as though it was a chosen and very old diet.

YEARS wore on and I became more wedded to the fly-rod and naturally began to look and travel the country over that I might find the most likely streams on which to pursue my favorite sport. About three years ago a pressing invitation came from an old friend at Marshall asking that I come and join on a trip to Caddo Lake. I accepted and in a few hours we were at one of the fine Clubs now situated on its shore. Nearly twenty-five years intervened between the present and the time of my former visits, time had made many changes, it certainly did seem odd to find a string of Club houses where we used to pitch our tents. We fished the same old way, had fine success and after two or three days the live box contained several hundred crappie and black bass. While at one of our meals I asked my host, who was a member of a younger set of Marshall sportsmen, if any one had ever tried fly-fishing on the lake? My host gave me a look that I shall never forget, then came his reply, "fly-fishing" on Caddo Lake, certainly not, who would ever be so big a fool as to try it." I said no more, and the subject was dropped. After I had parted from my friend and the successful trip to dear old Caddo was about ready to be recorded in past history, I yet propounded the question to myself, why can't black-bass be taken on a fly just as well in Caddo Lake as elsewhere? Not long afterwards while on a visit to Dallas, Texas I purchased a share of stock in the Dallass-Caddo Club, a fine building near the Club where my Marshall friend had lately shown me so much hospitality. This again gave me the right to claim an interest in dear old Caddo and it was not long before I had a good fishing boat, supplied with revolving chairs and soft cushions to sit on, I also had a little motor in readiness so as to economize on the time for making long runs and held all in a state of readiness for any day I might slip away from business and go fly-fishing on Caddo.

The time came near the middle of last April (1918) I quietly reached the club, secured the services of a Senegambian to paddle the boat and started in quest of the big-mouth bass

on Caddo lake. The portion of the lake selected for the morning's sport had not been visited by the writer for almost thirty years, but I found very few changes in its appearance, the water very clear, patches of moss and occasionally a carpet of water lilies came into view.

I BEGAN with using one fly, a Brown Palmer tied on a No. 8 sproat hook. The fly was taken promptly by a black bass of good fighting size, gave me a nice play, using all the strategy and dark arts known to the species, and when boated I found his weight to be 3½ lbs. Not wishing to worry my readers by having them go with me through the entire morning, and listen to that same old story that has been told so many thousand times, I will say my catch for the morning was 23 black bass, two of the number weighed as much as the first one taken, remainder a little less and some of them so small as to pull the scales at a ½ lb. only. I kept a dozen of the largest and started back to the club. A good crowd met my boat at the land-

a long peninsula called Long Point when the water became low it necessitated quite a long trip around the point in order to get into some of the best shooting and fishing territory and to obviate this our modern Monte Cristo surveyed and cut a canal across Long Point. This canal is in use and as serviceable now as when built. Our good friend was never so happy as when entertaining his friends, which he always did in royal style. Whenever you accepted his invitation and became his guest on Lake Caddo, your every want was watched and seemingly anticipated. A servant was at your elbow for everything; any man who could shoot found nothing in his way to make the day filled with happiness and good sport. In the early morning when we made the start for the shooting points and blinds we found a competent and willing boatman, ready with decoys and that ever necessary knowledge of Caddo and its best shooting places. No thought of ever getting lost or having to endure hardships ever entered the



End of the canal showing one of the buildings on the Starr place, just across "Goose Prairie"

ing and of course many questions as to my luck, etc., were soon asked. I exhibited my catch and quietly told them I took the fish with a fly. No particular attention was given my remarks until some one of them asked if I had lost my minnow bucket. I told them I did not have one since a fly-fisherman had no use for such. Then they began to give me some attention, examined my rod and quizzed my negro boatman to their entire satisfaction; this being done they gave it up and sat in my lap, the remainder of the day, so to speak, plying me with questions as to how and where it was done. Thus I demonstrated to my utmost satisfaction that fly-fishing could be successfully done on Caddo Lake.

NO account of Caddo Lake in the old days would be complete without mentioning my old friend and companion, the late Amory R. Starr, whose home on Sasafras Point was the rendezvous of many sportsmen. In front of his property and across a narrow strip of water, known as "Goose Prairie," is

mind. When the start was made, the oarsman was told where the meeting place was selected in order that all should have a good breakfast. About 9:30 or 10 o'clock, after the morning shooting had quieted a bit, a boat would be seen approaching us. Well wrapped in a tight box, kept hot by a spirit lamp, was breakfast for all. The oarsmen quickly lashed the boats together and with the aid of some long boards a table was soon in readiness and a feast spread before us. As soon as the inner-man was satisfied each boat took its way back to the shooting stand, and so the days passed giving every one all the shooting he could wish for and it was not unusual on the way home to hear someone say his shoulder was sore or his arms ached. After the last gun was fired and the day was done, we usually fell in with the other boats en route home.

When the bow of our boats nosed the shore we found old Henry Simms and his helpers there to meet us. A big fire of hickory wood in the broad fire-

(CONTINUED ON PAGE 182)

THE ANATOMY OF THE CANOE

UNDER THE GLOSSY PAINT AND GLITTERING VARNISH THERE MUST BE SOLID HONEST CONSTRUCTION ALONG CERTAIN DEFINITE LINES

BY FOREST HARLOW



Sectional views showing the three principal methods of construction used in all-wood canoes. Left, rib and batten, most popular; center, cedar rib, practically indestructible; right, longitudinal strip, strong and yet light

THE small, naked boy down in the old swimmin' hole who gleefully straddles or squats upon a floating log is emulating some far-distant savage ancestor in his crude attempt at the first canoe. Such a log, hollowed into a dug-out, was the first water craft to vision far down the centuries the thing of swanlike beauty and slim appealing lines that today we love as a canoe.

Not all dug-outs were the unshapely affairs that the average canoeist would produce if necessity called upon him to make a floating craft with fire and blunt tools as the only implements of use. Many dug-outs are gracefully formed; some are marvels of simple construction. The war canoes of the Haida Indians were capacious, and the tribesmen had learned the secret of increasing the carrying power by filling the craft with water heated by means of hot stones, and bracing the softened wood into wider space and better lines.

The next step was the canoe of skin or bark, and lightness and stability were thereby gained. Some of the skin boats, such as the Eskimo kayak, are ingeniously constructed, eminently fitted to the purpose for which they are employed; while the birch bark canoe of the North American Indian will continue deathless in the song and story of this country long after the last redman has vanished from the land that once knew him so well. The quintessence of Romance is enfolded in its lines, the charm and elusiveness of a bygone age when life was lived, in the open, under freer, saner conditions. These speak to us from the high prow and seamy sides of the birch canoe, for the spirit of Hiawatha still keeps tryst with his beloved craft.

Improvement in tools to work with results invariably in improvement of the object of the expended labor. Steel, sharp and precise, has left its mark upon the canoe. Today, the dug-out and the skin and bark canoes have yielded place to the craft constructed all of strips of

wood, sometimes covered with canvas, built along lines that make for speed and combine the minimum of weight with the maximum of carrying power, stability and strength.

CANOEES are of many different lengths, depending upon the amount of work or upstanding ability required of them. The guides of the North woods prefer canoes eighteen or twenty feet in length. They know that smaller craft will not carry the outfit necessary for a fortnight's stay in the woods far from the base of supplies—"forty miles from a lemon." But the canoeist who paddles for enjoyment along the pleasant streams near home will not need such a large canoe; neither will the canoe cruiser who is at all times within a few miles of needed supplies. The question as to which size canoe is the best to purchase can be quickly solved by a resumé of the determining factor—what do you want it for?

There is one size of canoe that seems to have been accepted as a standard wherever canoeing is indulged in to any great extent, and that is the "sixteen footer." True a shorter canoe could be designed to have the same carrying capacity, but it would not handle so well under certain conditions. As a pleasure craft a canoe must be easily handled by one person and its capacity should be such as to make it safe when carrying at least three persons. The sixteen-foot canoe, with a beam of from 31" to 34" and a depth of 12", seems to answer the requirements better than anything else. In any catalogue showing canoes you are likely to find the canoe set forth as the leader.

It will carry two persons and compact equipment for a cruise, including small tent, blankets, cooking outfit and necessary supplies. Mast and lee-boards may be attached to a canoe of this size, and the resulting sailing canoe will be safe and seaworthy.

There are many different methods of

construction employed in the manufacture of canoes, but the main objective that all builders seek to obtain is a minimum weight combined with the required strength. Sixteen-foot canoes will range from 55 to 80 pounds in weight, according to the material used and the method of construction. It is possible to build a 16-foot canoe that will weigh less than 60 pounds (we refer to cruisers and not racing canoes), but to do so the strength must be sacrificed to some extent and such a canoe could not be subjected to the usage that a canoe usually has to stand on a cruise or camping trip.

CANOEES can be placed in two classes as far as construction goes—*i. e.*, "all wood" or "canvas covered." There are several methods of construction in the all-wood canoes, but the three principal ones are known as "rib and batten, longitudinal strip and cedar rib." These three methods are entirely different. There are also "flush or inserted batten" canoes and "metallic joint" canoes, but both of these are just slight variations from the "rib and batten" canoe.

In the "rib and batten" canoe the ribs, usually half-round pieces of rock elm or white oak, are bent over a solid form or mould. These are placed 6" apart and run from gunwale to gunwale in one piece. The other parts of the frame work—*i. e.*, the keelson, stems, etc., are put in place first. To this frame the planks are nailed. Do not be misled by the use of the word "planks." The thin strips of tough wood have little in common with one's usual conception of planks. The planking usually consists of basswood or cedar and either material will make a good canoe. The cedar, of course, is the best and the basswood must be kept well painted or varnished. These planks are one-quarter inch thick and are put on either three or four each side of the keel. As a sixteen-foot canoe measures about 52" around, the planks are from seven to ten inches wide. The

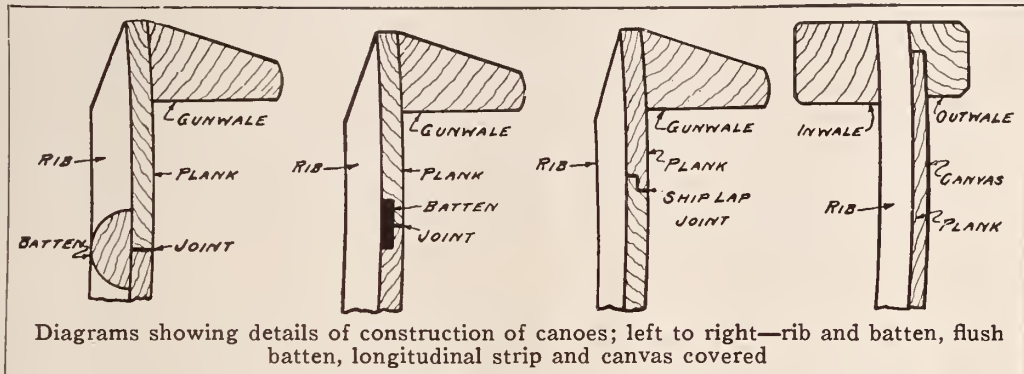
joints along the edge of the planks, running lengthways are covered with a short piece of rib cut just the right length to fit lightly between the ribs. This is the "batten" and it is from this construction that the canoe gets its name "rib and batten." The first wooden canoes except "dug outs" or "birch barks" that were made were constructed in this manner. For this innovation in canoe building the credit must be given to Mr. John Stephenson for, as far as is known, he built the first "board" canoe over fifty years ago. This was in Canada and it was from this that the various factories at present operating in that country got their start.

The "flush batten" or "inserted batten" is something similar. In this the edges of the planks are grooved out on the inner side or "half checked" and in this groove is laid a small hardwood strip or batten about $\frac{1}{8}$ by $\frac{3}{8}$ -inch. This covers the joint instead of the heavier batten used in the "rib and batten" canoe. It makes a very neat canoe, but it is hardly as strong as the other and the ribs are usually placed four inches apart instead of six. A canoe constructed in this way will be about three pounds lighter than a "rib and batten" canoe of the same size.

Another variation in this method is the "metallic joint" canoe. In this a brass or copper strip with the edges bent at right angles about one-eighth of an inch is used instead of the "flush batten." The turned edge is sunk into the planking and holds the planks together. The appearance is much the same as that of the flush-batten canoe.

The "longitudinal strip" canoe is a somewhat different construction. The ribs are lighter than in the "rib and batten" canoes. They are usually $\frac{5}{8}$ " wide and half round. They are bent over a mould or form in the same way, but the planking is made up of narrow strips. These strips, usually cedar, are one-quarter inch thick and about one and three-quarter inches wide. The edges

are half checked making what is known as a ship-lap joint. The first strip is laid along the keel then each strip is fitted tightly against the next. The strips are tapered lengthways so that they come out right at the gunwale. The ribs are usually $2\frac{1}{4}$ " from centre to centre so that no protection is required over the joints along the edge of the planking, the ship lap being sufficient. This construction results in a very strong yet light canoe and one advantage is that the strips being narrow are not affected by shrinkage or swelling—i. e., there is not enough change in the size of the strips by shrinkage or swelling to open the joint, if it is properly made.



Diagrams showing details of construction of canoes; left to right—rib and batten, flush batten, longitudinal strip and canvas covered

ANOTHER method of all-wood construction is the "cedar rib." In this canoe the "ribs" really form the planking. Cedar is the only material used for this construction and is about the only wood that is suitable. The planking is composed of narrow strips, $\frac{1}{4} \times 1\frac{1}{8}$ ". They are machined very accurately with a small tongue and groove joint, as used on flooring but of course much smaller. These pieces are steamed and bent over a form and run from gunwale to gunwale in one piece. They are pulled up tight, the tongue into the groove and dried right on the form. They are tightened up a little bit every day. It takes about two weeks in slow heat to get all the moisture caused by steaming, out of the planking. When this shell is dry the gunwales are put on, also the inside bilge strips and these prevent the canoe from coming apart. There are no ribs in this canoe. It is the principle of the "inverted arch" adopted for canoe construction and the result is the lightest canoe made by either all wood or canvas covered construction. This lightness does not affect its strength and as far as durability goes there is nothing better. Canoes of this type made over thirty-five years ago are still in use and in first class condition. The construction, of course, requires considerable time and the most experienced workmanship. There is a lot of work on one of these canoes, consequently they cannot be offered for sale at the same price as other canoes. This to some extent affects the sale of them. Another thing that affects the output of this style of canoe is the length of time that they last. A man has to live a long time and be an ardent canoeist to wear out

a canoe constructed by this method.

On all these wooden canoes the method of putting on the decks, gunwales, thwarts, etc., is pretty much the same. The gunwales as a rule are of oak, full length and measuring $\frac{7}{8}$ " by $1\frac{1}{2}$ ", moulded to a special shape. The stems and "snouts" or outside stems are oak, walnut or mahogany. The decks are usually butternut or mahogany. The decks on the wooden canoes are longer than those usually used on canvas covered canoes. The usual length is twenty inches. A small coaming is put around the inner edge of the deck to prevent the water from running into the canoe. The thwarts, usually three in number, are oak or mahogany and sometimes

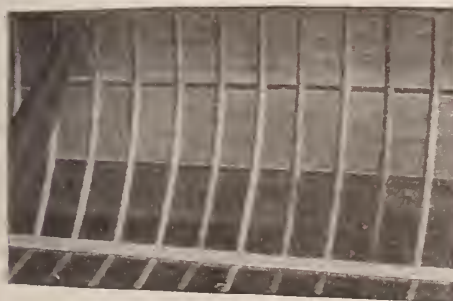
when a very light canoe is required spruce is used. Very often a cane seat is put in at the stern instead of the thwart.

On painted canoes iron nails are used and on varnished canoes, finished in natural color, copper nails

are used. The nails are driven in from the outside and clenched on the ribs. It is necessary to bore first for each nail to prevent the rib from splitting. When you consider that there are from 2,000 to 3,000 small nails it will give you some idea of the amount of work that has to be put on these small boats and bear in mind that it is all hand work too.

THE other method of canoe construction known as "canvas covered" is very well known to all canoeists as practically all the canoes made in the United States and quite a few of these made in Canada, are of that construction. First, a light shell is made. The ribs used are cedar, usually $\frac{5}{16}$ " or $\frac{3}{8}$ " thick and from two inches to two and a half inches wide. These are bent over a form and the forms are covered with metal sheeting so that when the tacks are driven through the planking they clench on the rib. The planking is also cedar, about $\frac{1}{2}$ " thick and in strips from 3" to 4" wide. The joints are fitted closely but the shell itself is not watertight.

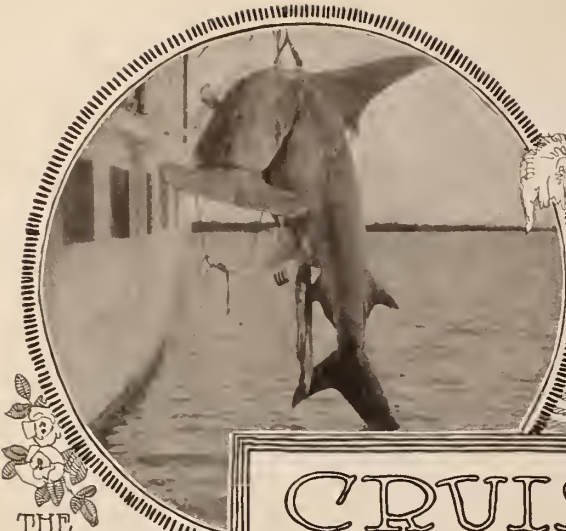
(CONTINUED ON PAGE 190)



The flush batten construction makes a very light and attractive canoe, but it lacks the strength of the rib and batten



The ever-popular canvas-covered canoe



THE HAMMER-HEAD AND THE SHOVEL-NOSE SHARK ARE PRETTY LITTLE CREATURES!



PART VI.
The
GULF
RANGERS

CRUISING UP THE THICKEHUNAHATCHEE

By W. LIVINGSTON LARNED

WITH Rod and Gun on a strange river. Some Wonder Waterways of the Florida West Coast, wherein the Habits of the Rapidly Disappearing Egret and Heron are studied first hand. Additional Proof of "Rookery Shooting." The Strangest Christmas on Record.

ROUND KEY took on an unusual glamour that sunny Christmas morning as three venturesome explorers—King, John Jr. and guide Hendry laved their faces in the sparkling water of the gulf from the stern of the small boat, and raised streaming eyes to an almost holy dawn. This day, more than all others, the serene splendor of the Great Outdoors, was exemplified! Yes, it WAS good to be alive!

A signal from the larger craft that rocked lazily on the dark green water nearby, aroused Mr. King, at least, to the material problems that confronted them. The occupants of *The Spoonbill* were up and active. King, half concealed by the *Mae's* cabin, turned his glasses in that direction. He could see Captain Flynt getting things ship-shape aboard the power-boat. He was smoking a short-stemmed pipe and his chest, bare and brown, was strongly suggestive of the primeval man. Now he jumped up to the deck of *The Spoonbill* and pattered with that bewildering display of coon skins, tacked to the cabin.

"Ahoy *Mae!*" Flynt's gruff voice challenged, "we want to get away early on that Thickehunahatchee trip, if we're going. Tell Hendry I'll see that he shoots a deer."

Hendry himself made answer, reassuring the Captain that they would have breakfast over in a little while. John was all aflutter with excitement. He had seen enough in the hatchway and under

the forecabin locker to give this latest adventure genuine zest. For, while his father had gone into no lengthy discussion of the episode, the boy realized that he himself had accidentally stumbled upon proof of a nefarious procedure. *The Spoonbill* and her queer crew were shooting up the egret rookeries. There seemed no reasonable doubt of it!

And once again John's thoughts reverted to the conversations with his father, that first day out from Miami. But why, if these two piratical-appearing gentlemen were on such a forbidden mission, should they actually welcome company? It was their own suggestion that Christmas Day be spent up the little-navigated waters of mysterious Thickehunahatchee.

John's father answered some of these questions.

"Do not refer to the egrets," cautioned Mr. King, "consider the subject absolutely taboo. Act as if you were not at all interested in what you saw in the locker. These men are naturally eager for companionship. They have been cruising far from the beaten track of other boats . . . for months and months, judging by their own appearance and the looks of their boat. Both are satisfied insofar as we are concerned. They know that my own mission has to do with properties, surveying, etc. I have shown them my diary and my soil reports. Moreover, they were not slow to detect that we observe the ethics of the section . . . we ask no questions. Christmas has broken down their barriers of reserve. Something in the very spirit of the day has made them seek friendship. The trip up the Thickehunahatchee is to be for sport . . . nothing else. It is their little escape from regular business."

THE *Mae's* party had finished breakfast, when Captain Flynt rowed up alongside. He had been across to Round Key for his traps, having set sev-

eral on the shore under the mangroves. One particularly plump coon had been bagged—not in the traps but with a rifle and Flynt held it up for Hendry to see.

"Here's a REAL breakfast for you," he declared, "want it?"

"Finished," grunted Hendry, who seldom ate coon flesh. John was beginning to have the same aversion for the little animals as camp diet, for Hendry had once skinned a coon and laid it bare for inspection. Between flesh and pelt the boy had seen a disgusting mass of long worms . . . like horsehairs. This appears to be characteristic of all the coons of the neighborhood that we had seen.



After all, it's the fellow with the Deer Who is a Real Hero.



These almost unknown waters — little, mystic sun-swept rivers that come from the gloomy depths of Big Cypress — are alive with fish. The scenery at times, looks as if it had been painted on brilliant canvas, with an eternal back-drop of blue sky

"No good eat," Hendry said, scowling, "worms!" And he had shrugged his shoulders suggestively. Hunters will do well to remember this, although some there are who do not share Hendry's aversion.

Both the *Mae* and *The Spoonbill* were safely anchored in the lee of Round Key, and things arranged for a sudden squall in case it came up during their absence.

The Thickehunahatchee jaunt was to be made in two power boats. . . . their own and Tiptley's somewhat larger craft if similar design, with glade boats either trailing or lashed atop the cabin.

And so, even before the day was well started, they set off in the direction of the river's mouth, but a short distance away. Captain Flynt wanted to make a landing at Gomez Point, to the north of the stream, for fresh water. A little distance inland, Flynt led them to a mossy barrel that had been embedded in the earth beneath the overhanging trees. Pure, cool water seeped into it and both boats were plentifully supplied.

"For many years," explained the Captain, "natives were in the habit of musing around Gomez Point with spades and fancy hopes. History hereabouts, handed down for generations has it that Spanish pirates buried gold in this region. . . . cargoes of it. And they never took it away. It was gold and treasure taken from rich prizes that swung wide of their course. Some day . . . when I'm not busy at other treasure," and Flynt winked at Tiptley, "I'm going to get me a spade and take a look for myself. I sort of think I could find a ton of doubloons 'er two."

First came the Thickehunahatchee River, three hundred feet wide at its mouth and rapidly narrowing to an average of fifty feet. It is a small stream but an exceedingly picturesque one, with the same show of interminable mangrove islands, particularly at its gulf extremity. They could look down through the

clear water and see the wonderful oyster beds, and both shores were lined with them . . . untouched, unworked, a marvelous universe of luscious bivalves.

"The Thickehunahatchee leads into the Glade country," explained Captain Flynt, "and will be well worth our expedition. But wait until you get to the Chokoloskee wilderness and Chock' Bay! There's wild country for you."

The further they got into this realm of game and tropic interest, the more convinced was Mr. King that they should not hurry out again in order to investigate Chokoloskee. Rifle and rod were strictly in order, to say nothing of

Flynt's sudden promise of deer around the cypress strands.

It was hard going for Tiptley's larger motor boat. Its engine refused to slow down, even when that became necessary, and as a consequence, she ran aground more than once, jamming her fat nose into the masses of mangrove or the oyster bars. On such occasions the smaller craft bravely yanked her off, and this business was repeated until it grew rather monotonous, especially to John, who was trolling and grew quite out of patience with many interruptions.

Curiosity made them stop up the river at a clearing on a sizable hammock. For here were obvious signs of a one-time habitation. The name "Ellis" was found on a dingy bit of cypress board tacked to an aged tree, but there was no living thing, save the birds and scampering coons. At one time this lone hammock clearing had been under primitive cultivation. There were as many as thirty grape fruit trees, the majority bearing, and they literally blazed yellow with their luxuriant growth of fruit. The temptation was too great to resist and all five members of the party fell upon grape fruit with a relish that may well be understood. As far as could be judged no human hand had rummaged in the bending trees for years. The cabbage-palm abounded, and there were several sturdy specimens of the gum elumi, bananas and water oak. John enthusiastically called from the abandoned grove that he had counted 250 fine grape fruit on one tree.

Soon they were off again, and at a distance of about twelve miles from the coast, a permanent headquarters camp was made on a beautiful hammock point that jutted out into what Hendry tersely called "much fine lake." It was virtually the sixth lake up the river, for there are many of these tiny fairy pools, with their calm mirror surfaces and their



The camp on the Point. Who can begin to describe the luxuriant ease and comfort and lazy bliss of those sunny days, with every stream and lake dimpled by bass and mullet



When you do run into luck, on a Tarpon basis, the going is mighty good. Every fish signifies a mighty battle that has taken place between mere man and the Finny

shadowy banks of massed foliage. They recognized now, that as the entrance to this last lake was but a mere creek, the power boats must be forsaken for glade skiffs. Progress had been necessarily slow, not only because of the many narrow river turns, but because of the aggravating speed mania of The Spoonbill's little sister. Nor was there any time for exploration. The tropic night would fall in a very short while and a spray of faint stars glittered over the solemn grey-green tops of the red and black mangroves. The point was a very wonderful spot for their camp. Its dry muck foundation was fairly clear of vegetation and some twenty feet back stood the solid wall of hammock shrubbery, which meant plenty of wood for the fire . . . myrtle and bay and the ever-reliable button-wood, the latter beloved of campers because of the slow, sure flame and the intense heat.

Late as it was, Tipley insisted upon having duck for supper. He inveigled Hendry into a jaunt up the creek, promising to return speedily enough. If there were other reasons for this sudden determination it was not brought out just then. Hendry said afterwards that he could not understand Mr. Tipley at all, for did not the stout gentleman with the red beard prefer to go alone through that wilderness of hammock and saw grass and boggy areas for a distance of a half-mile, when he might have gone snugly and with far less effort in the guide's glade boat which was poled with a certain amount of majestic calm across the still waters.

John went for a good-night fish in the second glade skiff, and shortly returned with a mullet and two small black bass. The lake was quite literally alive with them at this hour, as they leaped to the surface and dimpled the shadowy surface with their restless, ecstatic sport.

Captain Flynt and Mr. King attended to putting up the two tents in a thoroughly professional manner, and even went for wood that a carking good fire might be blazing when the hunters brought in their trophies. They also attended to getting everything in readiness for the supper which was eagerly looked forward to upon the hunter's return.

JUST before nightfall, at that mystic hour when the river country is pitched to an enchanted key and every tree is talkative with birds, Hendry and Tipley came down into the large lake, the latter having joined his companion. They proudly displayed a bag of twenty-seven ducks, including mallard and our gabby friend, the fish-eating black coot. The latter is to be recommended for its toothsome qualities on an occasion of this kind, and Hendry was as proud as a brace of peacocks. He explained that Tipley had joined him, some half mile up the creek, where they discovered another but smaller lake. Here the muck was soft and the hammocks swampy, and they had their first glimpse of the Everglades, stretching out, as it did, for three and a half miles before it linked arms with Big Cypress.

"Ducks!" gurgled Hendry, "I never see so many. Lake all covered with them. Not afraid. Blind man kill birds with eyes shut. Mister Tipley shoot from saw grass: I shoot from boat. We get coots coming and going."

Whereupon Hendry put his largest frying pans on the fire and, having nicely dressed ten of the plump birds, set them to sizzling. John, in the meanwhile, as champion of his own resourcefulness, fried a little bass on the side, rolling it generously in cracker crumbs.

Tipley, in the meanwhile, had walked out to the far extremity of the point, alone, meditative. Mr. King saw him gazing upward at the gorgeous sunset sky, into which was still shot the skeins of yellow and vermillion. Turning his own gaze involuntarily to the east Mr. King was somewhat startled to see a slender wisp of animated, fluttering white, like the tail of a great spectacular kite. It was a flock of from twelve to eighteen large birds, winging silently, gracefully, westward and some three hundred feet up. It was almost as if these birds were bits of paper, trailing at regular intervals upon an invisible cord. And behind them came other flocks, in like number, flying straight and unerringly to a positive goal. As fast as one shimmering flock disappeared into the mist, another came to take its place.

Impressed by the sight, Mr. King joined Tipley at the point.

"Hello, that you!" exclaimed the owner of The Spoonbill, startled for a moment.

"That is a remarkable sight," observed Mr. King, "will the procession never end? I have counted no less than twenty-five separate and distinct flocks of those birds and STILL they come."

"Egrets!" grunted Tipley.

"Egrets! all egrets!" his companion exclaimed.

"Oh no. They fraternize with the blue heron and the green-leg. Sometimes there are no more than several egrets in a flock. Didn't know there were so many in Florida, eh?"

"I had believed them well nigh extinct," was the response.

"Its different here," continued Tipley, "the one spot that has not been shot up. Too hard to get to. Few people come here—except the Indians. Look—there comes another prize string!"

This was true. With their fine necks curved almost double and their long legs straight out behind, rudder-fashion, a flock of twelve splendid birds swept past overhead, dipping casually into the gathering gloom of the Everglades section.

Hendry had seen them and Captain Flynt followed him on a run for the point, with John a bad third.

CAPTAIN FLYNT was exceedingly voluble. That he had been serripitiously touching up a flask of rum was easy to suppose. But he stood beside Tipley, watching that flight of egrets and herons, as if fascinated by the white beauty of them.

"Must be a rookery five miles west," he said, aloud.

"Not more than three miles," Tipley corrected, "its too late for them to go five. Feeding ground about eight miles from rookery."



Every fisherman who goes to Florida has an abiding ambition to catch at least one big Tarpon

It was metal arithmetic in egret habits. The location of a rookery could be determined by the hour of the day, for egrets go to their nests on the dot. Mr. King quietly took this all in.

Tipley and Captain Flynt were almost unconscious of the presence of their newfound friends. The sudden appearance of the flocks had put them quite off their guard. There they stood, immovable, staring into the sky—and reasoning it all out with calculative shrewdness.

"Plenty of little whites," said the Captain, "LOTS of them."

"That rookery is near or on the Fickihatchee," muttered Tipley, "they could just about make it by roosting hour."

"Its a wonderful sight!" cried John, who had never seen anything so inspiring before, "what do they eat, Mr. Flynt?"

"Crawfish—minnows—small snakes" returned the Captain, "the feeding ground is generally along a big shallow slough. Rock surface breaks the water. The birds reach in the crevices after what they can find."

Whereupon Flynt and Tipley, lighting their pipes, walked around the point, side by side, talking in undertones. Once John poked his father in the ribs but was warned not to take notice of what was happening.

The supper was as good as Hendry promised, what with fried fish and duck and appetizing coot, to say nothing of a great pan of the guide's best biscuit. But four sturdy men discovered, quite accidentally, how habit can play the master. Through a mix-up of instructions, as to what supplies should be brought, coffee was forgotten in the rush to get away from Round Key. It made no difference to John, but the others were unconsolable. Your true hunter MUST have his pot of aromatic coffee at the end of a hard day. It seems to be an essential part of an outdoor camp.

At six sharp they were up and doing. Hendry had the fire in tip top condition and rushed through a breakfast of bird and fish. He had determined to go after deer again and wanted to try it alone. That was Hendry's way. Bad luck had come to him so far and he attributed it to "too much company along."

The lake was dimpled by fish. Bass, gar, mullet, sun-fish and chub kept things splashing, as they rose to nab the legion of insects that were astir at this hour. It was fresh-water haven for all the finny members that John could wish for. Stately wood-ibis, seemingly unafraid, stalked along the muck shore and limpkins invited marksmanship.

As plans were arranged, another day would be spent up the Thickehunahatchee. Mr. King and Tipley were after deer and other excitement to the eastward, with hammocks beyond the saw grass area as an objective, some four miles away. Hendry would consider only his own deer expedition in his own way to the northward, whilst John and Captain Flynt decided to remain in and around camp; the latter arranging his traps for coons.

That Tipley might wish to look for something more important than deer—rookeries, for example, was a logical supposition.

The following of these three game trails is not without interest. And success came from an unexpected quarter, as we shall see. Mr. King and Tipley, armed with a .44 and a 12-gauge pump, traversed the mangrove and cypress and at last came to the saw-grass country, where wading into water and muck up to the waist was a necessary evil. Two and a half miles from camp they came upon a rather tall water oak and Tipley, for all his weight, shinned up it until he had a fair view of the surrounding country, which he viewed most methodically with his field glasses. Suddenly he called down:—

"Saw a doe just rounding the cypress on that bib hammock two or three miles east. I knew it. She was a little beauty!"

But upon gaining the cypress strand, no trace of the animal was discovered. Mr. King worked his way cautiously in through the hammock, while Tipley

danger from snakes increasing, and Mr. King back-tracked to the edge of the strand, calling to Tipley. There was no answer for quite a while, but the meeting was finally negotiated and they waded out and—homeward, with one last adventure to pay them for their efforts. In crossing a small hammock, at its tapered end, they found what had recently been a Seminole camp for two people. buck and squaw. Everywhere were the bright chips, hewn from a cypress log and back a pace, in the myrtle, the upright poles of the primitive sleeping quarters. When an Indian wants a new canoe, he scouts about until he finds a likely cypress. Then he brings his squaw and they take up their abode until the arduous, exacting task is finished.

It was five o'clock when they gained the camp. Tipley was thoroughly disgruntled at not bagging anything worth while, and this condition of mind



The few adventurous sportsmen who navigate the Thousand Island streams, find that the shore foliage meets overhead or brushes the boats as they glide along

skirted it for a distance of at least three miles. The former found that picking a path through cypress "knees" is about the most hazardous and thankless job on earth. They project upward from the floor of the hammock, awkwardly, stubbornly, in a strangely human way and form. Once he came upon tracks of bear—tracks in the black soil at least eight inches long, and indicating a bruin of considerable size. There are parts of Big Cypress that have never been explored and rumors come from the boundaries, of black and brown fellows that grow to prodigious size—for this section of the country. And once, in the dim aisles of the hammock, Mr. King saw a sprightly parrotquette. They are exceedingly rare and must find refuge in the swamp.

It seemed a rather hopeless quest, with

and temper was not improved when Hendry broke through the hammock shortly afterward, bearing a young doe slung over his sturdy shoulders. The guide's .30 had made a neat job of it, when the animal sprang up along the edge of the western cypress strand. The camp had broiled venison that night for a change and Hendry and the Captain cut all that remained in strips and smoked it for "future reference."

Flynt's traps had caught a number of coons and John, faithful to the rod and line, had caught sunfish, bass and mullet, galore. "It is so easy I get tired pulling them in," was the boy's laconic comment.

Flynt, however, had been a sort of good Samaritan, for he took John along the game trail, or narrow path between the cypress and the saw-grass that had been

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TROUT AND WATER CONDITIONS

MANY A FISH RETAINS ITS FREEDOM BECAUSE OF A LACK OF DISCRIMINATION ON THE PART OF THE ANGLER IN HIS METHODS OF FISHING DIFFERENT STREAMS

BY ERNEST WARREN BROCKWAY

FISHING for brook trout differs from every other kind of fishing in many ways. No other kind of angling requires so much study of water conditions and of the habits of the fish. In sea and lake and river fishing the condition and the action of the waters in these respective bodies is the same, or nearly so, at all times. But as to brooks, they are about as variable as the climate of New England. They are variable in two ways—in formation and in the changes wrought in them by means of weather conditions. In this article I shall point out these differences and the way trout act in accordance herewith as I have observed them—act regarding their capture of course.

I am fully convinced that many fine trout retain their freedom because of a lack of discrimination on the part of the angler in his methods of procedure in different streams. If more attention were given to this phase of the sport and less to color schemes in flies, far better results would follow. Does not one's reasoning powers dictate that the fishing of a noisy, tumbling, hillside brook should differ radically from the fishing of a slow-flowing and serene meadow stream? While this is an extreme comparison in the make-up of brooks, there are other comparisons equally appealing of consideration to the angler who would score success. There is the big brook and the little brook; the open brook and the



A small hillside brook with many bushes offers little opportunity for casting

brook canopied by bushes; the deep brook and the shallow brook; the brook filled with boulders and the brook free from boulders—yes, there are all of these and many more. Can't you see how the water conditions vary from those of the sea, the lake and the river?

A HILLSIDE brook contains but little still water and invariably, trees and bushes are found in abundance along the banks. Consequently, the angler hasn't much of an opportunity for casting either fly or bait. I have known anglers who were such rigid adherents to casting that they

blindly pursued methods of other days and other brooks which brought them success.

To me it seems an absurdity for any angler to believe it unsportsmanlike to fish for brook trout by any method other than casting. If trout were stupid fish then it would be different. But when, as every experienced angler knows, a sly old trout will oftentimes repeatedly outwit every bit of skill that the most efficient angler employs, I fail to see any violation of the "ethics" of the art by trying to bring such a fish to creel by methods other than casting. How often have I heard fishermen remark that in fly-casting, especially the dry-fly, a trout has more of a chance for his life than if a worm or a grasshopper or some other kind of natural bait were used. But don't worry about a lack of caution on the part of any fair-sized brook trout; don't be deluded in thinking that because a fat and wriggling worm is dangling about the mouth of Mr. Trout he has undergone a demolition of his



If it's a big brook and you can't cast, jump right in and wade

innate wariness. Oftentimes I have wished that this were the case. But there is no psychic relation between the mind of a man and the mind of a trout.

AND so it behooves the angler to make a careful study of his brook and act accordingly. If you are fishing a brook which forbids the proper use of a fly or the casting of a bait lure, then get busy in the old-fashioned way,—that of keeping your lure always in the water and working it to and fro across the brook. Don't be ashamed to do it; it isn't unsportsmanlike; not to do it, in certain cases, shows false pride. If it is a big brook, jump right in and wade, but don't go splashing along like a side-wheeled steamer. Just because the running waters are making a big commotion and noise is no reason why you should. A trout has a fine sense of discrimination; any discord in the music of the brook is quick to meet his detection. If the average angler were possessed with an equal sense of discrimination, better contested games in the art would result. In this method of fishing, one should, of course, fish down stream and allow the worm lure, which can't be beaten, to dangle along in a careless, unguided way as nearly as possible. If a worm were thrust on his own resources in a brook that is the way he would do, and a trout is wise enough to know it. Where a strong current prevails this is often difficult to do, for the line is bound to straighten out, and perchance the angler stops walking for a moment the worm, of course, will halt, too. In such cases it is an excellent plan to keep retrieving the lure and permit it to be swept down until the line straightens. I have caught many a trout in this way that I could not catch by any other method.

In the case of a small, brush-bordered brook it is not well to wade. For a first fishing, no harmful results will follow, but the next trip will show the tell-tale effect. The wading has made the trout extra cautious because of their previous fright. Even if you yourself do not intend to fish a small stream again, you, as a member of the great angling fraternity, should have consideration for your brother fishermen. Though often difficult to enter your lure through a tangle of bushes, and often an act that will test every atom of one's patience you are likely to be repaid by a big catch, for the more cover trout can find in a small stream, there is the place they love to dwell.

In fishing slow-flowing meadow streams, oftentimes one is obliged to resort to tactics nearly reverse to those employed in hillside streams. In the foregoing, I have emphasized the need of making as little noise as possible in wading a large active brook. In fishing a quiet meadow stream, I would advise the angler to do *no* wading unless absolutely necessary. It is far better to fish a half-mile of this kind of brook from the bank than to fish two miles by wading. There are places which necessitate one's getting into the brook, places which would be impossible to fish in any other way. One of the streams which I fish many times a season has more than a dozen



Fishing a shallow stream free from cover one should keep back from the water

places so densely covered with bushes that it would be impossible to enter a lure except by getting into the middle of the stream a few yards above and then feed the line slowly and carefully into the big bush-embowered pools. It is something like the process of threading a small-eyed needle, and if it doesn't call for as much skill as does the casting of a fly then I acknowledge my inability as a fair judge.

IT was on a hot afternoon last season that I came to one of these tangles.

It was a big brook but so dense were the bushes both above the water and at the sides that an opening of only about eight inches presented an opportunity for the entrance of my lure. Cautiously I allowed the current to carry it along, and the instant it entered the bushy tunnel there was a strike and a splash and a big trout was mine. Here was a case where fishing from the shore would have been impossible. Crawling through bushes and getting your face and hands scratched oftentimes, and getting your line tangled and your hook caught nearly all the time isn't so pleasant as standing on a flower-covered bank with not a bush in sight and debonairly casting an ornate

fly on placid, sky-reflecting waters, but it is a part of the game and any true angler should be willing to play it just as ardently as when the moves are easy and all is tranquil.

When there is but little current in any stream, then, of course, one is obliged to cast, whether using bait or fly, for the movement of the water is inadequate to carry the lure along. It is often well when bait casting to drag the lure slowly along for several feet from where it first struck the water, for many a time a trout will strike when a worm lure is in action whereas if it was still he would give it little, if any, attention. This procedure belongs to the same rule as the retrieving and feeding out of a line in swift water, that I have previously stated. If one were to ask me the "whys" of this kind of action on the part of a trout as well as ask me many other reasons for their eccentricities at various times, I would answer emphatically, "I don't know." And I believe that every honest angler would have to answer the same. A plausible reason, however, for a trout's preference oftentimes for a moving lure is that it denotes life and action and this appeals more temptingly to him.

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A quiet meadow stream should not be waded unless absolutely necessary

HOW TO TIE THE ARTIFICIAL FLY

WORKING YOUR MATERIALS INTO A WATERPROOF FLY OF SUFFICIENT RESEMBLANCE TO NATURE TO CAUSE NEITHER FEAR NOR DISTRUST

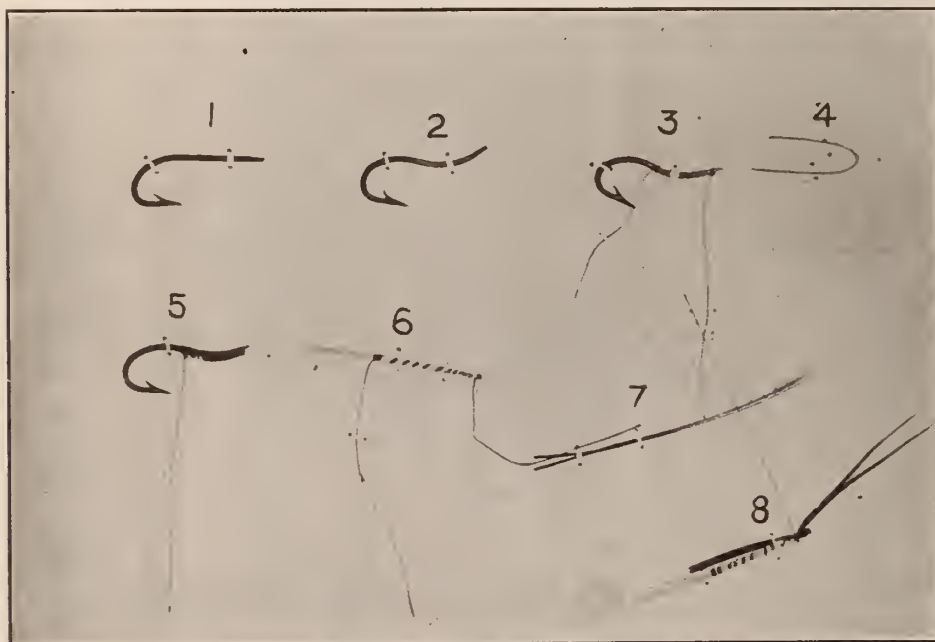
By DR. HARRY GOVE

THE selection of the material which should enter into the makeup of artificial flies is so important that it demands more than ordinary attention. Our consideration is, what materials will make a waterproof fly of sufficient resemblance to nature to cause neither fear nor distrust to the fish to which it is presented on the surface of the lake or stream? Considering the difficulties which lay in the path of direct imitation, the best we can hope for is that our fly, in its general appearance, taken

struct you how to dress a fairly presentable fly in quite a short time, advancement in the art requires practice, and attention to detail; a few failures must not produce discouragement.

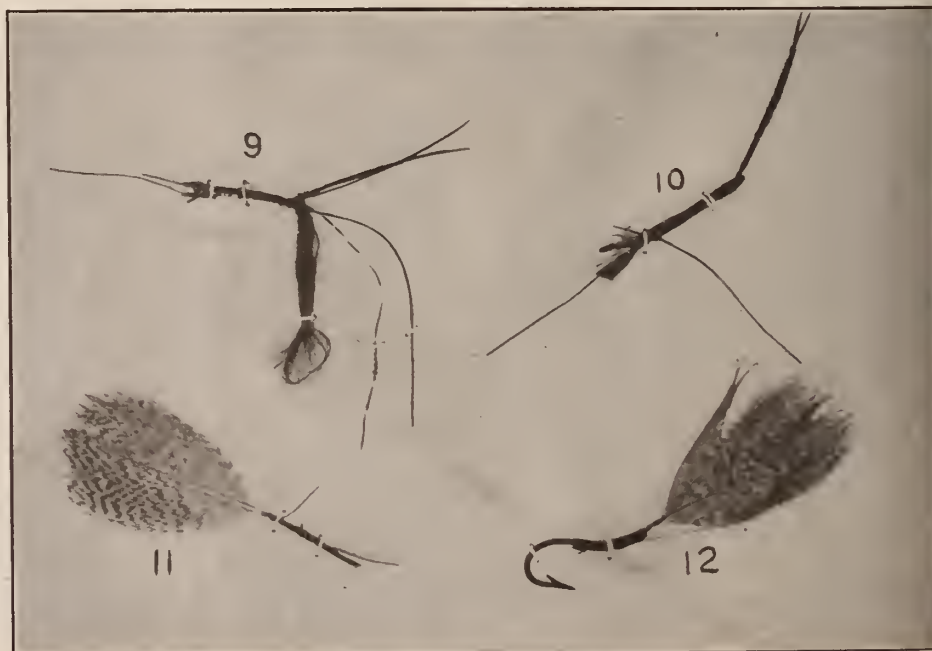
I REMEMBER when I looked at the flies tied by the Scotch expert who gave me the few lessons I ever had in the art, the idea that I could ever equal them seemed hopeless. I made up my mind, however, that I would if it took me twenty years. Whether or not I have

succeeded you will judge when I tie the flies which will appear in the last article I shall contribute on practical fly dressing. The method I will pursue will be to illustrate all the different movements I make in tying a fly, from start to finish. This will place in your possession all I have learned regarding the subject in over half a life time. Just in proportion to the information imparted to a novice, in like ratio will be the rapidity of his advancement. The fly we will construct will have the self same body as the transparent winged one I construct and be a facsimile of it, with but one exception, that is, the wing shall be made of feathers. I have selected this method of dressing as it is much easier to apply feathers to the wing than the above mentioned material. At all events I will tie both of these flies for your inspection. In making a fly there are certain materials and tools which are absolutely necessary. Of the tools the most useful to an amateur is the fly-tier's vise, facilitating in a very great degree progression in the art. Next in order, two pairs of scissors of small size, one with curved points, the other straight, a pair of fly-tier's pinchers must certainly find a place on your table. The use of these is to grasp the butt end of a small hackle when applying it to a very small hook, as in the making of a midge. A small pair of watch-maker's tweezers and a pair of pinchers for bending the shank of the hook completes the category of the necessary tools. A small alcohol lamp must also be purchased. As to materials the list is a much longer and elaborate one. There are but two of our necessities that are liquid. One to be used instead of the ordinary wax, composed of white rosin,



The first steps in fly making

as a whole, may pass for the living insect it is intended to duplicate. It would be the task of a life-time to collect the materials which are employed in the manufacture of the ordinary feather fly and supposing it complete, I would surmise that the greater part of it could be consigned to the waste-basket, not only without deteriorating the lures with which they are constructed, but being a factor in their improvement. Bear in mind that the fly I now propose to instruct you how to dress is not the ordinary feather fly, but a fly, the body of which is waterproof and whose wings are made of feathers. In starting out I may remark that a great many writers on the practical manufacture of artificial flies claim it an easy matter to dress one, it is not so. It certainly might be quite a simple task to tie the flies they refer to and illustrate in their drawings. These are not the flies we will make, for their imagination that their products were artistic lead them astray. When we finish tying our fly you will readily perceive whether the above statement I have made has fact for its foundation. It will be a pleasure to me to in-



A little further advanced

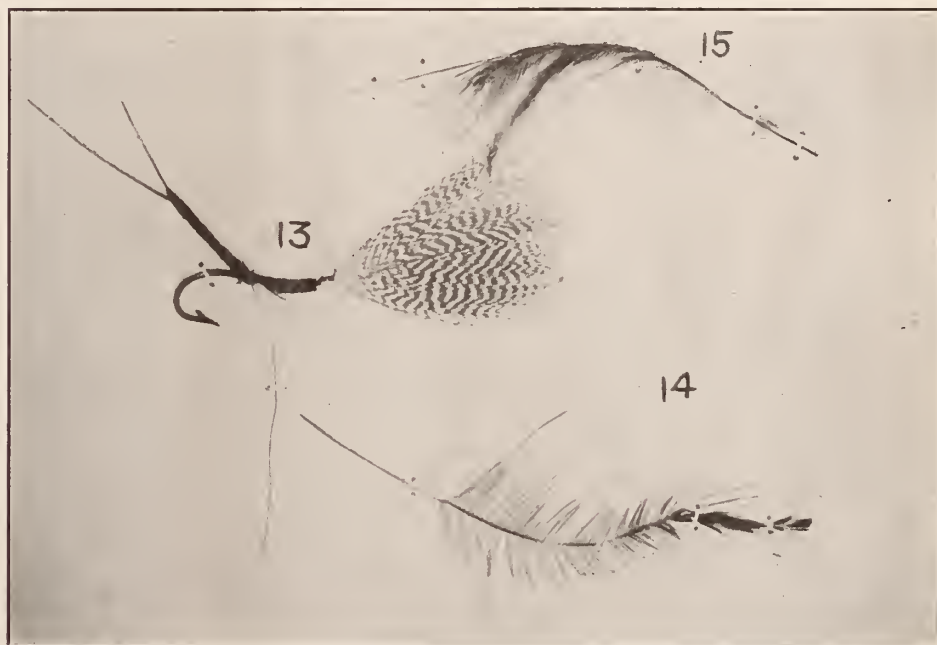
to which turpentine is added in sufficient quantity that when the rosin is dissolved it shall be of the consistency of molasses. A little of this is placed on the forefinger and the thread drawn through it until it is sufficiently waxed. This is a dirty, sticky application, and is properly handled by waxing a dozen or more threads of tying silk three feet long each, the day before using them. If you neglect this you will be obliged to cleanse your fingers after every fly you tie. The other liquid is white shellac varnish, made by adding alcohol to bleached shellac, allowing it to stand in a warm place until dissolved and it becomes like thin varnish. This is applied to the silk that forms the head of the fly where the wings are attached and finishes it off, so to speak.

OF materials for tying on the loop attached to each hook, and fixing in place all materials, in the make up of our new fly, tying silk of exceeding fineness and strength is required. Two hanks of silkworm gut, one fine, for looping the fly, the other coarse for making the frame work of the detached body, is not to be omitted, nor yet white horse hair, which is to be dyed all the primary colors. Floss silk of all shades, narrow gold and silver tinsel; right and left wings of turkey, duck, geese, ibis, etc., in fact any kind that will give you the shade required for your wing. Last not least, seal fur from a very young seal pup, dyed all the leading colors, furs of all aquatic animals are preferred, from the fact that these are more or less waterproof. I neglected to mention a few golden pheasant feathers, especially the tippets. With this material any natural insect can be imitated. A small table should be selected and covered with white paper. The fly vise is affixed to its edge near the middle. The position of the table should be in front of a window to insure sufficient light. Light your spirit lamp and taking a straight shanked hook, Fig. No. 1, in your pliers heat it in the flame until it becomes a cherry red, from the

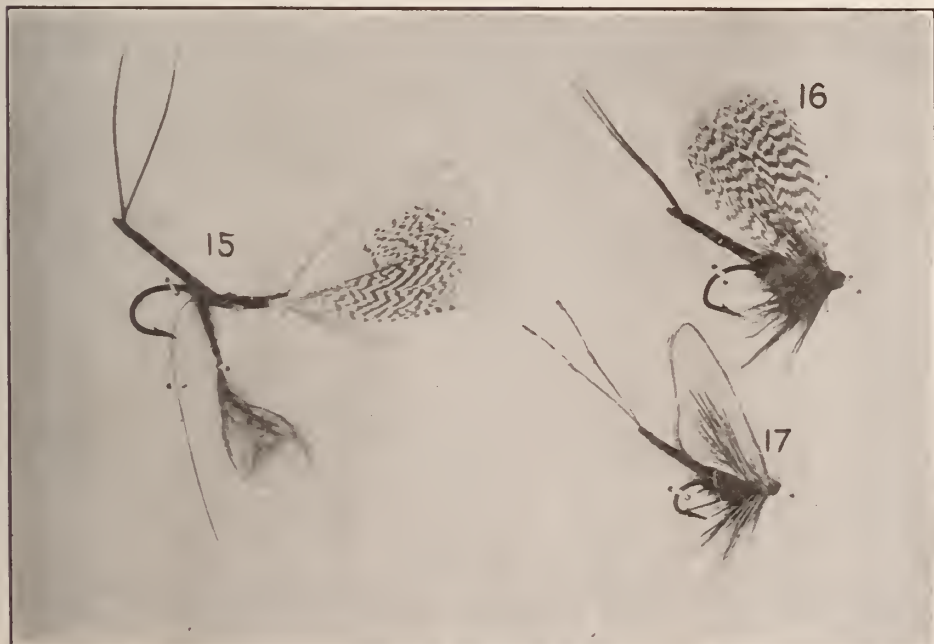
middle of hook shown in Fig. 1 to the end of the shank, then bend to the shape shown in Fig. 2.

THERE is considerable doubt concerning what act can be committed of "right down cussedness" which can be classed as the unpardonable sin. I'll tell you what it is, it is to fasten a loop on a hook that will pull out on the first strain placed upon it. In order that this awful sin will not appear against you on the pages of the Big Black Book I propose to show you how to attach a loop to a hook, either large or small, that cannot be pulled out by any known means. Take a peice of waxed tying silk about two feet long, fasten it securely at a point about the middle, shown in Fig. 3, wind it spirally six or eight times around the shank, until it reaches the extreme end of it, then secure it with a half hitch No. 3. Clip off the thread

close to the hook. Cut off a piece of gut, and bend it to form a loop, No. 4; place it in the inside of the hook, from the point about the middle, shown in No. 3 to the end of the shank, making the loop at the end the desired size, wind it evenly and securely with the long thread in Fig. 3 to the part designated in Fig. 3, and half hitch it. It will then appear exactly as No. 5. Now fasten the hook securely in the vise allowing the long thread to remain. Cut off two pieces of stout gut, Fig. 6, one an inch and a half, the other an eighth of an inch longer. This extra eighth of an inch is to project that much or more beyond the other piece to which it will be attached; this will give the correct taper to the extreme end of the detached body. Take these two pieces of gut between the finger and thumb; fasten the tying silk securely around both pieces with the thread, Fig. 6, wind



A few more intricate moves in the development of the fly



The finishing touches

it spirally and tightly, and carry the thread to the extreme end and fasten it with a half hitch.

WE will now fasten the tail to the gut frame work we have constructed for the body. Take two long filaments from the tail feather of any bird the desired color, Fig. 7. Take Fig. 6 between the finger and thumb, and with the thread, which is half hitched, make a little knob at the end by winding it around one tiny place a number of times. This is shown in Fig. 8; this gives a finish at the very end, besides imparting a natural appearance; last, not least, it keeps the tail curving upward. Take the two fibres of feather, Fig. 7, and place them at the point below the knob you have made, binding them securely and firmly, as shown in Fig. 8. Now as you require to make the body of your fly a certain size, and in proper proportion, having it also of even taper, all the material, I mean the silk, the tinsel and horsehair should not be attached, and the ends clipped off near

(CONTINUED ON PAGE 191)

FOREST AND STREAM

FORTY-EIGHTH YEAR



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Nine East Fortieth Street, New York City

THE OBJECT OF THIS JOURNAL WILL BE TO studiously promote a healthful interest in outdoor recreation, and a refined taste for natural objects.
 August 14, 1873.

THE ARROW SHOOTER

THE real sportsman, the genuine lover of God's Out-of-doors, learns some of the finest things of life along the taper of his rod and the rib of his gun.

For one thing, he is a chaser of rainbows, and in this chase has learned that romance lies everywhere, waiting for him to flush it; adventure hides all around him, waiting only for the right fly to lure it from the hidden depths. He knows that in his rainbow chasing he may never find the pot of gold—but this he knows, that life is good, and the chase of it better; and the long, sunny trail to adventure alluring starts anywhere his feet may chance to be, if only he have the nerve to follow it.

Few of us shoot all our arrows. And many of us dream of the trail that leads to coral islands lying in an azure sea, where pearls hide by golden sands and palm fronds wave to the tropic breeze . . . the trail of adventure. Ah, how we dream and dream . . . and say, "It cannot be." When, did we but see it, there, at our very feet, lies the trail to it all. We can have it any day, if only we have the nerve to get it.

But we never shoot all our arrows. One or two, a dozen it may be, but never the full quiver emptied.

It is so your hunter starts on his hunt, and all through the long day he beats the bush and sweeps the plain, till at last, discouraged, he says, "There is no game. Life is humdrum, life is drab. It's too civilized. What's the use?" And he flings his gun on his shoulder in disgust, steps wearily homeward . . . and . . . Whir-r-r-r . . . There they rise with thunder of wing and clamor of cackling throat, a bevy of gorgeous grouse, a covey of them, sailing and soaring an instant, then swallowed up in the drab thicket again . . . without a single following shot!!!

So your hunter stands, agape a moment, then, grumbling at his unreadiness steps out again, homeward. "What's the use? It's only a stray covey,

gone now. The world is gameless, adventureless, drab." And as he draws near the camp where his team waits, he pulls the shells from his gun, snaps it shut with a sigh . . . steps out—Whir-r-r-r—they rise with clatter of wing and cackle of throat, a sun-burst of living rainbows, half a dozen of them, gorgeous cock pheasant and iridescent hen, sailing, flapping, sailing to land in the distant swamp afar off, while grayness settles on the hunter's world again.

None of us shoot all our arrows, most of us not half of them. We wade the old stream, cast fly after fly, and get not a rise. Enthusiasm wanes, hope deferred makes the heart sick. Till we say, "The world is fished out; there isn't a trout left in it. There lies the pool, Sundappled, cool, weaving froth wreaths o'er its dappled depths," but no fish? Toiled all day and taken nothing? Listless the fly sails, and settles, and our minds wander on the drab monotony, and . . . Flip-p-p-p, splash!!! and a tense rainbow shoots up, curves, and dives with open jaws at the fly. But your fisher hopeless, frozen into inactivity, never even strikes to the rise—only stands agape with surprise while the ripples close slowly over the radiant spot.

None of us shoot all our arrows—we work awhile, and then lose hope, and courage wanes. We have a mighty bow, a quiver full of polished arrows, each a masterpiece, and a target big as the world to shoot at—and we never shoot . . .

So sportsman—fisher in many streams of life; hunter in many a strange field—what's the matter with you . . . YOU? Shoot man, shoot all your arrows. For all life is a grand hunt, and many a drab thicket holds glorious game. Shoot, and be ready to shoot again, and yet again—all your long day of life. For the New Year is here, the Dawn of a BIG, NEW DAY . . . So shoot—all you have and may the God of the real sportsman give you good hunting, good game—till the last light of earth fades and the Dawn breaks on the Great Divide, where, they tell us the Happy Hunting Grounds lie.

A THEORY OF MIGRATION

AN interesting lecture was given recently in England by Mr. C. J. Palmer, under the auspices of the Ipswich Field Club. After dealing with the habits and distribution of local birds, the lecturer discussed the theory of bird migration, and said in that distant period of geologic time before the advent of the Ice Age, the region round the Pole was, it was supposed, tropical and luxuriant, and constituted the central headquarters of the great bird army of the world. Under the gradual pressure of increasing cold, first the immediate region round the Pole, and afterwards an ever-extending area, became too cold to support bird life in winter, and, as that season of the year approached, the birds were driven south. With the birds, however, the love of home and place is the ruling passion (the same swallow will nest in the same porch year after year), and, as soon as spring returned, the birds flocked back to their old nesting-places, released by the increasing heat of the sun from the ice-bound dominion of winter. After a time they were unable to return as far as their original homes, being stopped by the extending ice barrier. They then made their nesting-places as far north as the climate and the pressure of their numbers over a given area permitted, to be again driven back in the winter, and next year to reach a nesting-place still

further removed from their first most northern home. The migratory habit, having been commenced and implanted, never ceased, and the birds found themselves by it reaching every autumn a further southern limit, and every spring a more restricted northern one. Other planetary disturbances may in future ages drive birds altogether from Great Britain, or restore them again to their Polar homes.

NIGHT PROWLING BIRDS

A CORRESPONDENT questions if predaceous birds fly by night and pursue the streams of migratory birds on their journeys from North to South. We think there is no doubt that hawks, owls, and other predaceous birds pursue the fleeing swarms, and the only question is, do they take their prey at night? All kinds of owls we know will take birds at night, and it is probable that certain kinds of hawks do likewise. The difficulty, of course, is to prove cases, as night and the high altitude at which birds migrate prevents observation. Height raises another question. Migratory birds are said to fly at a height of many miles, and this would take them up to a twilight zone. We have seen hawks take their prey, including blackbirds and sparrows, after they have gone to roost. About five o'clock one evening last December, hearing much chattering from some small birds which were accustomed to roost in a large clump of bamboos, we approached to try and discover the cause. We suspected a cat, but, after some time, we made out the shape of a bird perched on a branch near the bamboos. Finally it made a dash into the bamboos, and then made off with what we strongly suspected was a sparrow dangling in its talons. The moon was up, and this enabled us to make a good guess that it was a sparrow hawk hard pressed with hunger.

A DOG WITHOUT A MASTER

DID the reader ever see a lost dog in a great city? Not a dog recently lost, full of wild anxiety and restless pain and bewilderment, but one who had given up the search for a master in despair, and had become consciously a vagabond? If so, he has seen an animal that has lost his self-respect, traveling in the gutters, slinking along by fences, making acquaintance with dirty boys, becoming a thorough coward, and losing every admirable characteristic of a dog. A cat is a cat even in vagabondage; but a dog that does not belong to somebody is as hopeless a specimen of demoralization as can be found in the superior race among which he has sought in vain for his master. We know him at first sight and he knows that we know him. The loss of his place in the world, and the loss of his object of loyalty, personal and official, have taken the significance out of his life and the spirit out of him. He has become a dog of leisure.

WHY NOT SCENTED BAITS

A QUESTION was asked recently if fish were able to smell food at a distance. We do not think there is the slightest doubt about it, as there is so much evidence confirming our opinion. Water is very similar to air as a medium for conveying scent, and anyone who has seen chub, for instance, nosing up-stream in search of a bit of cheese, or eels and trout working up for worms, will be quickly con-

vinced that fish have a very strong sense of smell. Old Izaak and many ancient anglers strongly advocated the use of scented baits, and it seems strange that today no investigations have been made into their usefulness, only the plainest unadulterated baits being used. Salmon roe has a very strong scent, and it may be that this is the reason why fish are attracted to it from quite long distances down-stream. It is not always that the scented bait is palatable to the fish, proving that it is the scent alone in cases where the bait is not devoured that invited their curiosity or expectation. Horrible mixtures are sometimes used for attracting fish, but, with the exception of honey, perhaps, in paste for carp, there is little bait-scenting done.

PASSENGER PIGEONS SEEN

THE New York *Sun* of February 4, 1919, prints the following letter from C. W. Dickinson, the famous wolf hunter of northern Pennsylvania:

"In the fore part of September, 1918, as we were going to our war garden in Concord, Mass, we saw a flock of about 200 beautiful passenger pigeons. There is not a possible chance for us to be mistaken about these birds, for the sky was clear, the sun shone bright and the birds passed within 150 feet of us.

"The country there is practically level and all cleared, so we could see these birds a long distance. They flew in a northerly direction until they were nearly out of our range of vision, when they circled to the left and came back on the northwest side of us and about the same distance from us as they were when they passed at first, but on the opposite side, and we could plainly see the white breasts of the hens and the red breasts of the toms. These birds are a uniform color except the red and white breasts of the toms and hens.

"When these birds are making a flight they fly as steady as wild geese or ducks. They do not wobble or criss-cross, but go straight ahead unless something frightens them. Then, too, they have the long pointed tail.

"Of course there are rare exceptions as to color. During our time we saw ten or twelve spotted birds. Some of them are about white. During the latter part of the '50s we saw a snow white passenger pigeon ten or twelve different times.

"We have seen billions of these birds. We have caught over 1,600 dozen with nets and we have shot thousands of them. When a small boy we caught hundreds of them in quail traps; so taking our experience into consideration we think we ought to be able to tell a flock of passenger pigeons today, for our memory is good even if we are growing old."

A REQUEST FROM THE BIOLOGICAL SURVEY

I N connection with its administration of the Migratory Bird Treaty Act and other work in game conservation, the Biological Survey desires to secure information concerning every hunting club or other organization whose object is the hunting or conservation of game of any kind. It desires information as to the names of the officers, the location of their hunting ground if they possess property of this kind, and the number of members of the organization. The postoffice address of the secretary is particularly desired. Address all communications to the Chief of the Bureau of Biological Survey, Department of Agriculture, Washington, D. C.



MIGRATION SOUTH OF THE EQUATOR

SOMETHING ABOUT THE LITTLE KNOWN SUBJECT OF
BIRD MOVEMENTS IN THE SOUTHERN HEMISPHERE

By ROBERT CUSHMAN MURPHY

MR. FRANK KABAN, of the United States Marine Corps, stationed at Mare Island, California, has written the natural history editor as follows:

"Why do we never hear of a southern migration, that is a migration of the birds of the southern hemisphere toward the south, just as our birds migrate to the north, in the spring?

"It seems reasonable to expect the birds south of the equator to do that, but I have never heard or read anything to that effect."

This question should be understood to apply to land birds only. In one sense it would be quite fair to answer it by saying that we hear so little about bird migration in the southern hemisphere principally because the subject has never been adequately studied in that half of the world. Since the dawn of history, the great centers of population and civilization have been in the temperate regions of the northern continents, and the return of the swallow in the spring was as familiar to the Greek poet, Anacreon, as it is to us today. Likewise the author of the book of Job speaks of the hawk that stretches her wings toward the south, a phenomenon that we, too, note recurrently in autumn. But the habitable lands south of the equator, which means Australia and New Zealand, the greater part of South America, and less than half of Africa, have bequeathed us no old literature filled with such a tradition of bird migration, and, during the relatively brief period in which these areas have been settled by northern man, there has scarcely been an opportunity for noting and recording the actual facts regarding southern birds that make seasonal journeys toward and away from the equator. In this connection it should not be forgotten that in absolute numbers, as well as in proportion to the total population, there are even now vastly fewer naturalists in the southern countries of the globe than there are in the United States, Canada, and western Europe.

Nevertheless, after we have made due allowance for the conditions just mentioned the truth remains that, at least as regards land birds, migration in the southern hemisphere has attained no such dimensions, either in the number of migrant species or the distances traversed, as we find in all parts of the north temperate and boreal world. The most obvious reason for this is to be

THE Natural History Department has been for nearly half a century a clearing-house for information of interest to all. Our readers are invited to send any questions that come under the head of this department to Robert Cushman Murphy, in care of FOREST AND STREAM. Mr. Murphy, who is Curator of the Department of Natural Science in the Brooklyn Museum, will answer through these columns.—[EDITORS.]

sought in the distribution of continental masses. We all realize that the northern hemisphere contains the greater part of the earth's dry land, but only by looking at a geographic globe from a north polar point of view can we gain an adequate conception of the manner in which the great continents of Eurasia and North America are crowded around the northern axis of the world. Looking southward in all directions toward the equator, we find that even China, India, and Arabia lie well to the north of the line, while two-thirds of Africa, and a considerable section of South America, are also included within the northern hemisphere. Beyond the equator, at the periphery of the terrestrial world, we find only the minor continent of Australia, and the narrowing wedges of South America and Africa extending into a vast ocean. How different, too, are the relations of these southern lands to each other and to the austral poles! Cape Horn, the extreme tip of South America, lies in about 56 degrees south latitude, a position corresponding to that of Edinburgh and Copenhagen in the northern hemisphere. Africa extends only about as far south of the equator as Los Angeles and the Strait of Gibraltar lies north of it while Tasmania and New Zealand carry the inhabited southern lands to parallels corresponding with those of Boston, southern Canada and Paris.

Under such circumstances, the movements, and very population of land birds of the southern hemisphere must clearly be far more limited than those of the birds distributed throughout the spacious north. In the words of Professor Alfred Newton, the distinguished English student of ornithology, "if the relative proportion of land to water in the southern hemisphere were at all such as

it is in the northern, we should no doubt find the birds of southern continents beginning to press upon the tropical and equatorial regions of the globe at the season when they were thronged with the emigrants from the north, and in such a case it would be only reasonable that the latter should be acted upon by the force of the former. . . . But, though we know almost nothing of the migration of birds of the other hemisphere, yet, when we regard the comparative deficiency of the land in south latitudes all round the world, it is obvious that the feathered population of such as nowadays exists can exert but little influence."

ANOTHER and more speculative reason for the limitation of periodical bird movement in the southern hemisphere has to do with the theory which connects present day migration with the geographical source, or point of original dispersal, of the various groups of migratory birds. It is an accepted fact that many of the higher families of birds, such as the pipits, for instance, which are now of almost worldwide distribution originated somewhere in the northern continents, probably in central Asia, and thence radiated through Europe, Africa, both Americas, and many of the outlying islands. When birds of this kind were driven from their northern ranges by the ice invasion of the Glacial Epoch, some of the species only bided their time before following back the retreating cold and reoccupying more and more of their old ranges, the constantly increasing seasonal oscillations eventually becoming fixed as the instinct of migration. According to this hypothesis, the birds of the southern continents were not sufficiently distant from the tropics to be so affected by the Glacial Period, and, moreover, many of the groups then existing south of the equator have become extinct, and have been replaced by invaders from the north.

Having now discussed briefly some of the theoretical reasons for the relatively slight development of bird migration on the southern continents, let us consider two or three examples from the scant supply of scientific information which proves that certain land birds, breeding in temperate regions south of the equator, do, nevertheless, make seasonal migrations into the tropics. In Argentina, South Africa, Australia, and New Zealand

(CONTINUED ON PAGE 189)

THE BARD OF THE KUSKOKWIM

C. EDWARD CONE, A POET OF THE NORTHLAND TELLS OF HIS EXPERIENCES WITH A FISH-WHEEL WHILE TRYING TO PROVIDE FOR A LARGE FAMILY OF MALAMUTES

By JOHN P. HOLMAN, Associate Editor of FOREST AND STREAM

LAST Spring, during one of those long northern evenings of late twilight, we were sitting in the lobby of the Crescent Hotel, Anchorage, Alaska, talking of men and things and waiting for it to grow dark enough so we could go to bed with clear consciences, when the door opened and a man stepped briskly into the room.

"Ah, Mr. Cone!" exclaimed Redwood, our genial host, and he then introduced us to a man about fifty years of age on whose weatherbeaten face was written many a tale of hardship. The smile he gave in greeting portrayed a kindly disposition, full of the philosophy of life and there was a curious twist about the corners of his mouth that bespoke a depth of humor. Redwood had introduced him as the "Bard of the Kuskokwim" and then hastened to explain that Mr. Cone was a poet of some repute among his fellow townsmen. We became interested at



The fish-wheel on the Kuskokwim

once and begged him to recite some of his verses. He reluctantly did so and amused us for an hour or more with many original pieces, portraying life in the north. A few days later I visited him at his cabin on the outskirts of town and enjoyed reading some more of his poems and stories. They were all filled with the spirit of the North and told in a very novel and picturesque way.

especially the salmon, which run up most of the Alaskan streams during the early months of summer in great hordes, are lifted out of the water and deposited in a box arranged for that purpose. Sometimes large catches are made in this manner, but in Mr. Cone's case, like many other things in life, it didn't work just as he had expected it would, but I will let him tell his own story:

MR. CONE is a real pioneer of Alaska, having come to the country away back in the eighties and has trapped and prospected over a large part of the country. While prospecting along the Kuskokwim River he had a tragic experience with a fish-wheel, which he has put into verse. A fish-wheel is an ingenious contrivance which is just what its name implies—a large wheel, anchored in the stream and turned by the current—it has broad paddles upon which the fish, and

I'D been prospecting for a year,
Was broke, and feeling blue,
And was strictly on the hustle
For something I could do.

I met a wise guy on the trail
(They called him "Windy Jim")
And he said, "Go build a fish-wheel
And fish the Kuskokwim."

"And when the wheel is finished, sir,
You'll never more be broke
For all that you will have to do
Is sit around and smoke,
And watch the fish fall in the box,
And dollars in the poke."

And among some other things,
That all-wise guy agreed,
That there was money to be made
In taking dogs to feed.

"You may take fifty dogs," he said,
At five per month for each;
Why, talk about your "high finance"
My boy, it's out of reach."

That gaudy scheme looked good to me,
So I quickly set to work
To build that magic fish-wheel,
And you bet I didn't shirk.

For two whole solid weeks I toiled
Just twenty hours a day;
And at last the wheel was finished,
And I was feeling gay.

And when I had it good and safe
At anchor in the stream,
I went and hunted up some dogs,
To finish out that dream.

I couldn't reach that "high finance"
Not even with a pole!
I fed about a dozen dogs—
They left me in a hole.

For though that wheel kept rolling
'round,
It caught but little fish;
To wring that wise guy's windy neck,
Was now my ardent wish.

I had to feed those hungry dogs!
And therein lies the rub:
In lieu of fish I had to feed
My scanty stock of grub.

Those malamutes seemed to think
That I was all to blame;
They seemed to think it was my fault
The salmon never came.

For every time I came around,
They'd look at me and growl;
And when a fish fell in the box,
They'd all begin to howl.

Whene'er I think about those dogs,
It almost makes me weep!
Through them I lost the little chance
I might have had for sleep.

There is a gray old trader there,
Of whom I want to tell;
Though I may never pay him,
I shall always wish him well!

He'd listen to my woeful tale
About my lack of cash,
And then he'd let me have some
grub,
Which showed that he was rash.

I handed him a gold-piece once,
He almost had a fit!
And now I'm sure he never in
The least expected it.

But may God bless that trader!
If it hadn't been for him,
I'd have starved to death while fish-
ing
Upon the Kuskokwim.



A CAFETERIA FOR BIRDS

TO those of us who love birds it is a pleasure to feed the little ones who brave the winter in our northern clime. It is a good plan also to feed the venturesome early birds of spring who often find "scant picking" during the cold, bleak days of early spring.

A unique, economical and efficient feeding device was built for me by Mr. Edward Avis, the well-known "Bird Mimic," who has delighted thousands of audiences with his wonderful art of bird-song imitation.

The device is simple, practical and highly recommended. It may be constructed as follows: Bore a hole eight inches deep, two and a half inches in diameter into one end of a smooth-barked log at least 4 by 14 inches in size. With a one-inch auger bore four holes, two on each side and about three inches apart, slanting a little downward from the outside to the large cavity. Fill a common quart milk bottle with hemp, rape or sunflower seed, finely chopped suet or scraps, and insert inverted bottle into the log. Care should be taken that the neck of the bottle shall fit tightly so as to exclude all rain.

We fastened the feeder securely to a tree trunk. A tall post will do nicely. The birds will soon find their way to the food, and the appliance will serve them automatically as long as there is a supply in the bottle. The woodpeckers, nuthatches, chickadees, titmice, brown creepers, etc., will be able to cling to the smooth bark and take the food from the openings, but the English sparrow lacks this accomplishment and therefore will be precluded from the feast, otherwise these little thieves would soon steal all.

C. P. H., Connecticut.

'LEVEN KINKS

TO quickly reload the single shot, .22 calibre, rim-fire rifle while hunting, as the bullets are outside lubricated and cannot be carried in the pocket loose, and taking one from the box each time is slow, I carry three in a brass tube, suspended by a cord from the shirt button-hole. When a cartridge is wanted it is surprising how quickly one slides into the hand by upending the tube. They cannot spill out, for with the cord tied around the upper end of the 3½-inch tube, the weight is always at the lower end.

* * *

To keep the flask holding either dope, liniment, pain killer, etc., well corked,

take a piece of brass wire, form a loop in the middle by twisting it several times, then wrap it around the bottle neck just below the nozzle and twist the two ends together and draw them over the cork and through the loop, the ends are then turned back and the point pushed into the cork.

* * *

In a warm country a candle left lying in the tent is apt to twist, droop, or flatten out, but by rolling it in paper and placing it under the bed roll it will retain its shape.

* * *

To draw a tight wood screw from a gun stock easily, put a red-hot piece of

WE are depending upon the friends and admirers of our old correspondent Nessmuk to make this department worthy of his name. No man knew the woods better than Nessmuk or wrote of them with quainter charm. Many of his practical ideas on camping and "going light" have been adopted by the United States Army; his canoe has been preserved in the Smithsonian Institution; and we hope that all good woodsmen will contribute to this department their Hints and Kinks and trail-tested contrivances.—[EDITORS.]

iron against the screw head for about a minute, then use the screw driver.

* * *

To clean the metal threads of sand, filings or grease which sometimes happen to get in them while overhauling a fire-arm, take something flat, in width less than the diameter of the screw hole, lay a piece of cloth over it and turn all into the hole, the same as the screw is turned in.

* * *

A good match holder for use in a tent can be made from a 12-gage empty paper shell. Cut out an oval section from one side then tack it to the tent pole.

* * *

For hanging clothes in the tent some good pegs can be made with several empty revolver cartridges of large caliber and eight-penny nails. Knock out the old primer and in its place slip a nail, then drive the nail into the tent pole until the shell stops it. A big peg is very easy on the garment it holds, whereas the nail heads are apt to damage them.

Spices and salt and pepper containers are apt to be left on the table while camping. If so they should all be set upside down, then when wanted will not be found covered with dust or other dirt.

* * *

On most outing trousers the belt loops are sewed flush with the edge and on the inside, this allows the belt to loop above the trousers. So I always tacked said loop down by sewing them at least ½ inch from the top.

* * *

For advertising many groceries and other businesses give away calendars, generally a big picture with a little pad on it. Under this little pad will be found printed very small, 2½ x 1½-inch calendar of the whole year. Take this and paste it in the memorandum book and it will sure come in handy.

* * *

A good cigarette or small cigar holder can be made by the camper who forgets his, from the leg bone of a rooster, better known as a drumstick. The remains of the rooster can be lunched upon.

JIM FERGUSON, New York.

REPAIRING SMALL BURNS IN A TENT

BALSAM wood is notorious for throwing off sparks that burn holes in the tent. At places in the north country it is the only fuel obtainable. Last year, at such a place, my tent received a score of holes from this cause and I had not repaired it. We closed them with surgeon's adhesive plaster, applying it both inside and out. These patches rendered the tent serviceable. I had carried that adhesive plaster upon many hunting trips and this was the first time I had found any use for it.

A very useful aid in carrying a rifle came under my observation in Cassiar. A rifle sling has a tendency to slip from the hunter's shoulder and will not remain firm on the shoulder unless held in place. One hand must always be on the rifle in order to keep the sling on the shoulder. Often in climbing both hands are required. A large button firmly sewed on the shoulder of the hunting coat will act as a guard for the sling when the sling is over the shoulder, prevent it from slipping off and in emergencies permit the hunter to make other use of his right hand than holding the rifle on the shoulder. The button will not interfere with a hasty voluntary shifting of the rifle to a position for shooting.

HENRY BANNON, Ohio.



A DISH OF OUR FOREFATHERS

IF you had lived in 1719 or 1819 instead of the present year you would probably have been familiar with the meat product known as jerked venison. Under the name of "jerky" it traveled in our forefather's haversacks far to the unknown western lands and with parched corn, known as "rockahominy," it shared the honor of provisioning the pioneers of America in their fight against primitive conditions.

Here is the recipe given to me by a government official in Wyoming:

Cut into strips 2 inches wide, about ½-inch thick and as long as the particular muscle extends. Mix about 2 teaspoonfuls of salt to 1 pound of meat, rubbing in well. Smoke with non-resinous wood, such as alder, hickory, bark, etc., for about an hour. Hang over stove to dry. Dry until product breaks when bent. This recipe is primarily for venison but it works just as well with beef.

This official, an assistant in Boy's and Girl's Club work in the northern and western states, gave a demonstration of the process out-of-doors under the blue skies and amid the lofty mountains of Wyoming, before hunters, forest rangers, and mountaineers who came in from miles around, bringing their families with them. They pronounced the jerked venison "good eatin'." But it seems funny to me that Uncle Sam has to "tell them how" where the former generations of men who occupied that ground presumably were familiar with the process.

CHARLES KEENE, Wyoming.

TO TRAP SKUNK

I WILL tell you a good way to trap skunk, civet and muskrat: for skunk make a pen of stones or sticks driven into the ground. The pen should be about two and one-half feet long and open about eight inches on one side, put a piece of bloody rabbit or muskrat in the back of the pen and sprinkle with the musk of a skunk and anise oil mixed, then set a number one and one-half or number ninety-one trap in the opening and if there are any skunks around you will catch one. For civet go out about the last of October and dig some small holes about a foot deep in the side of a hill. Then when you start trapping put some rotten fish in the back part of the holes and set a number one trap in the openings and you may catch five or six in one night. In either this set or the one for skunk it is not necessary to cover the traps, but it is best to, as you

may catch a wandering mink or 'coon. For muskrat take a bundle of fodder corn and put in water about six inches deep and set three number one traps on the top of it. Have them staked out in deep water so that the muskrat will drown as soon as he is caught.

The following is a good way to keep your feet from getting sore on a long tramp: Take your socks off and rub cream on your feet and then put your shoes and socks back on and on the longest tramp your feet will not get sore.

JOHN A. KNOLL, Iowa.



SECTION OF CAN CUT AWAY SHOWING FISH WORMS AT BOTTOM OF CAN.

"CANNED" WORMS FOR BAIT

IN the spring worms are plentiful but in the hot summer months it is almost impossible to dig them. They can be kept on hand for summer use if one will take an old tin can, the larger the better, such as a five-gallon oyster can, and punch it full of nail holes—small, so that the worms cannot crawl through. Bury the can in the ground to within an inch or so of the top; fill it with earth and put in the worms. They will burrow down in the earth of the can which receives moisture through the many tiny holes. Occasionally moisten the soil and put some coffee grounds on top. The result will be lively, juicy worms which no fish can resist.

There is quite a bit of money to be made by any enterprising boy if he will try this scheme. In England bait is sold by many shops, but in America it is often as hard to purchase worms as it is to dig them.

So boys, get out your spades and, remembering the old proverb about the early bird, go forth into the dewy fields and dig.

F. V. W., Canada.

INFORMATION WANTED

CAN any of our readers give us the information desired by the writer of the following letter:

Friend Nessmuk:

Being a constant reader of your paper and reading some of your answers to the questions of your admirers, I wish to gain a little of your information.

Now, I do not care to kill birds, but some people may think my way is not so exciting, but to me it is a pleasure.

I am an admirer of song birds. I have a large cage in my home and keep canaries, but I want to get some other kind that are singers.

How would I go about it to trap or capture such birds as the red bird, linnet and such small birds that one can keep in the home and give them the best of treatment? In return all I ask is a song now and then.

Will you tell me how I can go into the woods this spring and catch some of these songsters alive?

FRED E. FINNERAN, Rhode Island.

A BOTTLE TORCH

WHEN working around the camp at night it is often more convenient to use a flare than a lantern. Some times more than one light is needed and then it is handy to know how to construct a simple torch. I have camped out a good deal and have used many makeshifts, but the best torch I know of is made in this way. Fit a cork of green, hard wood into a long-necked bottle so that it is fairly tight; cut a V-shaped groove in one side of the cork. In this insert the wick, which may be a piece of flannel or any old rag. It must be long enough to reach well down in the bottom of the bottle. Fill the bottle about half full of kerosene, insert wick and cork, and light up and you have an excellent flare.

The green wood of the cork does not ignite quickly and the torch is easily grasped and held where one needs it. If there is no kerosene in camp any oil may be used. It might work safely with gasoline, but I should not want to be the one to experiment with it.

A piece of heavy wire twisted around the neck of the bottle serves for a handle or a stick can be split and the neck of the bottle fastened in the crotch.

With this torch in hand you may be able to go Diogenes one better and with a little care and a great deal of patience you might be able to find an honest man.

MRS. E. E. H., Maine.

GIVE THE YOUNGSTERS A CHANCE

To the Editor of FOREST AND STREAM:

THERE ought to be an amendment to New York's gun-toting law which would permit parents to train their children in the use of fire-arms. Under the present law, as I understand it, one cannot get a permit for a boy to carry a gun, nor for him to hunt, except on the limited areas of one's own property.

When, a year ago, I went to a dispenser of hunting licenses, and tried to obtain one for my boy, ten years of age, he acted as though he was insulted when I tried to obtain an explanation of the refusal to grant the boy a license.

"We just don't do it; that's all!" he said.

The difficulty seems to be, in New York state, the Sullivan law which was aimed to get criminals whom the New York police could not catch otherwise than with fire-arms on their persons. It was a confession that the police were inefficient. Accordingly, the right to carry fire-arms was seriously abridged, even though there is some sort of a provision in the old time U. S. Constitution that guarantees the individual's right to bear arms.

The habit of the hunting license is nicely extended so that if a man hunts without one, they get him, too. The States variously differentiate between outsiders and insiders, notably Arkansas, whose game was all being killed off by rather hoggish and unscrupulous hunters and game baggers from elsewhere. There is opportunity here for reciprocity among sporting people, including automobilists, and doubtless there will be in time.

But the New York state condition as regards boys and girls and the use of fire-arms is seriously against any one caring to risk the various menaces of state police, game protectors and local police. No matter with what good intention a parent starts out to teach his boy to hunt, trap and know the woods, the boy's rifle, when he is under 16 years of age, may possibly be used to get the parent into serious difficulty with the Sullivan Law.

Boys learn to use fire-arms the best when from ten to fourteen years of age. I was eleven years old when I began with a 32 Remington rim-fire. I shot hundreds of heads of game with it, from deer to chipmunks. One thing my father taught me, morning, noon and night for a few weeks:

"Never point a gun at any one, at yourself, or at any thing you don't want to shoot; never shoot in the direction of any house, cattle, or garden; always throw your bullet into a solid background, if possible."

LETTERS, QUESTIONS AND ANSWERS

I've never had an accident nor seen one—I knock wood, of course!

My proposal is that the Sullivan Law be amended in legal phrase, to cover the square, law-abiding boy who wants to own a rifle or gun, and who will have instruction in using it. The boy should have a distinctive hunting license of his own, and a button of his own.

This license would be issued on condition that he have competent instruction. It would be signed by an instructor, as well as by the boy. The instructor should be known to the issuing office of the license. The boy would apply for his instruction either from a parent, a Boy Scout Headquarters, an old guide or woodsman, or from a sportsman. A part of the course in school and in field would be "Game Laws and Useful Animals."

It might be well for every district to have professional instructors in gun craft for boys. The instructors should have their own certificates, which could be issued on reputation, as well as on demonstrated fitness to serve in the position.

But the State would issue a leaflet, or instruction book, and that book would contain the essentials of a boy's education in guncraft, handling fire-arms, carefulness, fitness for the game, and the rest. Consider what Chief Legge, and his protectors, the editors of guncraft magazines, *The Master of the Boy Scouts*, Colonel Roosevelt, Mr. George B. Grinnell, and a committee of similar high authorities could put down into a school book for outdoor boys, covering the use and service of fire-arms under the hunting law.

There ought to be in every school house in the state a class that would instruct the boys and girls in the use of fire-arms, under this state law—if it didn't become a national law, under the compulsory military training, for the special training of boys and girls who want to hunt. No boy in the state should be permitted to have a fire-arm who did not take this course of instruction, or its equivalent, in charge of a parent or a professional instructor. This class, for boys of 10 to 16 years of age, would prepare them for hunting in the fields and woods, and for outdoor target practice.

I am not asking too much. I went camping out in the deer and bear country alone, at thirteen years of age. My

boys cannot do that now and carry fire-arms. But under a law that made the parent responsible for the adequate instruction of his hunting children, the boys could go hunting alone, could go trapping alone, provided they were still under the strict discipline of handling fire-arms with every care and caution, according to rules laid down by competent authorities. Protectors and police could then put the young hunters through the manual, to test their fitness, where they found them.

It is all farcical to talk about teaching boys to grow up with a rifle in their hands when the state law makes the parent a criminal for having a pistol, or for permitting his children to own fire-arms. The worst possible thing that can be done is to make it a crime for a square parent to do the best possible thing, as regards fire-arms and outdoor life for his children. It takes a pretty level headed boy to differentiate between crime and the illegal practice of learning to handle a gun, hunt and trap as under present game and gun laws.

An amendment to the laws, compelling adequate instruction of boys and girls of hunting age, say 10 years, if they are to have or use fire-arms, air-guns, bean-shooters, would put an end to all the distressing accidents due to ignorance, and reduce carelessness to the minimum.

Air-guns and bean-shooters are perfectly proper playthings for children, if the youngsters are only taught proper play with them. I began my hunting in New York City with a bean-shooter, killing dozens of sparrows and learning to hit marks with them—and never a broken window! Never a hit person to my discredit.

RAYMOND S. SEARS, Little Falls, N. Y.

OLD STATEN ISLAND DAYS

To the Editor of FOREST AND STREAM:

I WAS pretty close to nervous prostration but this morning I received my knife and I felt easier, now I am just as big a kid as ever and I am pleased with my new knife, although I am very near the three score mark, I am a crank on pocket cutlery. I carry three knives and keep on hand about fifteen of various makes. I received my FOREST AND STREAM for March and expect I will not have to bother any more with an irregular news man. I am sending you a little *stuff* for the paper if you want to use it. I enjoy the little articles from old timers and the duck and snipe shooting on Barnegat Bay by the old writer is good. I have been there myself; it's a good place yet. I may some time write up my cruise on the "Deborah Jane," on the said bay.

When I get up these April mornings and walk down back of the house I hear the robins tuning up, I hear the crows in the air uttering their harsh caw as they always do in the mating season, and song sparrows are beginning to tune up for their final effort as soon as a glimmer of light shows in the East; the hens are still in their house but the rooster crows and I stand there and think of thirty and thirty-five years ago when I used to get up at the same time and take my ever-ready Gordon setter "Dash" and get on to the snipe grounds. Old "Dash" knew where to go; he would lead me to every pond-hole and swale, stopping once in a while to see that I was not getting absent minded. If he scented birds he told me by wagging his tail and looking over my way. Those were times I enjoyed myself. Many times have I walked over the fresh meadows from the Prince Bay light to the Kills, and hardly ever without something to show for it. In those days there were numerous ponds in the woods and fields and often teal and pintails were added to the pocket reserved for the zig zagging snipe. Most of these little ponds contained gold fish, shiners, etc.; now most of them are drained off because someone had his old scrofulous blood vessels tapped by a mosquito. There are just as many mosquitoes here on Staten Island as ever, but some one has more dollars in his pocket on account of some one's whim. Last Sunday I took a walk over the old spring shooting grounds. In one low-lying pasture where there is a clear little pond that has not been drained off I saw three black or dusky duck and around the edges of the pond I put up six or eight English snipe. I felt in a way as if I would liked to have broken the law. How I wished my old companion "Dash" was with me so he could do his part; but no, times have changed—thanks to the law and those who observe it. I walked along toward Great Kills for two or three miles, going over the old places and I should judge I put up 25 birds in my morning's walk. There must have been not a few that escaped my notice. It was a pleasant walk. I heard but two shots fired, usually there is more or less shooting on this end of the Island on Sundays. Coming home I came through the old woodcock grounds, but only put up one pair of these birds. They evidently had a nest in the sprouts nearby, but our field and forest fires are so numerous that birds that nest on the ground have little chance to propagate their kind.

H. L. ALLEN, Staten Island.

FROM AN OLD SUBSCRIBER

To the Editor of FOREST AND STREAM:

I AM sending you by parcel post the copies of FOREST AND STREAM. I think I am one of your oldest subscribers or readers, as I have several hundred copies on my shelves, some of them dating back to 1875 when the buffalo ranged the plains and wild Indians camped where now are towns and cities. I have always been interested in outdoor life, but being a working man could indulge in it only to a limited extent; a few days off occa-

sionally; but FOREST AND STREAM has kept me in touch and I like to look back and think of those men who could so well write up those scenes and times of the open and the wild, and in my mind I seem to be fishing with Fred Mathew, snow shoeing in New Brunswick with Emerson Hough, listening to the stories in Uncle Liska's shop, camping with the king fishers, gathering specimens with Fred Beverly in the tropics, fishing for black bass with Dr. Henshall, and scores of others who wrote so interestingly. Today I have been reading of Mr. King and his party and their trip along the West Coast, and yet it does not seem such a long time since the day of muzzle loaders and when prairie schooners were the only means of transportation across the plains, but it is a big jump from those days to the electric car and the pump-gun. I am an old man now, well past the three score and ten, and in the natural course of events it will not be long before the Phantom Drummer beats his last tattoo, yet I look for FOREST AND STREAM every month and hope I may be able to read it for some time to come. If you find this too tedious to decipher chuck it in the waste basket and believe me your well wisher and one of the old timers.

S. E. HURLBURT, Conn.

pencil. Removing the paper, I follow the outline in black point with a fine brush. This done, the space within is painted black and the silhouette stands out against the white pine boarding in vivid contrast. Lastly the weight, date and initials of the captor are added.

It is especially easy to recount the capture of this or that specimen looming so black again the wall. Here is the three pound bass with his spiny dorsal fin spread in fighting style. Yes, he gave me a grand battle! There is the four pound pickerel—strikingly graceful as compared to the chunked bass. Some sport catching *him* on a light fly rod and landing him unassisted! Occupying a proud place is the two and one-half pound bass—my nine year old son's first prize. Will he ever forget how his rod bent as he played him into the landing net?

One of the best yarns is about the big bass over the door next to the fireplace. He was one of the family for some time before he was added to the food supply and contributed his form to the mural decorations. He would hover (I suppose fish *do* hover) around us while we bathed, taking a position in about three feet of water at the inner end of the diving board and watching with interest (may-



A novel way to preserve a record of your fish

SHADES OF THE DEPARTED

To the Editor of FOREST AND STREAM:

FOLLOWING the keen enjoyment of hooking and landing his fish, the dearest wish of the average sportsman is to preserve a record of his achievement.

Of course the taxidermist affords the ideal method if he and his art are available but he is usually far from camp and an expensive luxury at best. A tabulated list of weights, dates and captors is only partially convincing and fails to bring to mind the actual appearance of the catch. Photographs are good but usually fail to do full justice to the subject.

At my camp on a New Hampshire lake I have tried the following scheme with good results. Placing the fish on a sheet of paper and holding the fins and tail wide spread by means of pins, I mark his outline. I then cut this out, tack it to the wall and mark around it with a soft

be with amusement) our diving and swimming stunts. Apparently devoid of fear, he would allow us to approach within a yard of him before taking an unhurried refuge beneath the board. For a long time all efforts with all kinds of lures failed to interest him, but there came a fatal day—and here he is.

Here and there are the fish taken by our guests who, when they return next season, will greet the evidence of their skill with renewed enthusiasm and, as Jerome K. Jerome says, "the thrilling tale will be told again—with fresh exaggerations each time."

EDWARD P. HENDRICKS, Mass.

We are especially glad to have received the above letter and trust that more of our readers will take advantage of this department in our journal and send us such interesting suggestions as may occur to them, accompanying their letters with photographs if possible.—[EDITORS.]

A WASHINGTON TROUT STORY

To the Editor of FOREST AND STREAM:

THE busy life of a civil engineer on railway construction affords little time for trout fishing, although it very often takes him to regions where trout are plentiful. An elderly native, who had the best varment dog in the state, as well as a line of bear, deer and trout stories that invited extreme credulity, had often told me of a certain stream, back in the timber.

Taking advantage of my hard earned and carefully arranged for holiday, three a. m. found me pumping the speeder over the main line, toward a junction with a logging road. Four level miles sped by in short order and I had arrived at the junction. The logging road was a different story. Grades up to eight per cent., geared engines being used to haul with, for no ordinary locomotive could begin to negotiate such grades and neither could I with the speeder. For quite a few miles of the ten-mile road I had to walk and push the speeder. However, dawn was just breaking as I reached the end of the road and prepared to ascend the skidway, the next stage of my journey. A Washington skidway is made by putting three logs together so as to form a huge trough. Where possible it is laid on the ground, and is supported by cribbing across draws and very uneven ground. It is steep enough to permit us to descend by gravity. When I had reached the top of this one I was willing to rest for a few moments.

Luck was with me when I hunted for the blazed trail, for I found it in no time. The trail led for three miles through the virgin timber and was fine going. It brought me to an old abandoned wagon road, which I followed for five miles and which ended at a ten acre clearing, long since deserted.

I was now within three miles of the stream, but there were no more trails to aid me on my way. It was a three mile plunge through the jungle. It is difficult to convey any idea of the terrific density, of a Washington forest to one who has never experienced one. Gigantic trees, six to twelve feet in diameter, and of tremendous height, a very heavy underbrush, due to the great rainfall, monstrous windfalls which are difficult to either climb over or go around, in fact such a forest is all but impassable. However, I wrestled onward. At times I was certain that I heard the roar of the stream, but upon listening carefully, discovered that it was the wind in the tree tops. Finally I heard the real music of the water, and after a sharp scramble I was beside it.

No beaten fisherman trail along the banks here with empty tin cans, pieces of paper and remains of lunches to greet you at every turn. It was a virgin stream and all mine for a time. I hastily jointed my rod, and then opened my creel. During my plunge through the jungle the lid had become loosened and my fly book was gone. There are moments in one's life that will never be forgotten. To retrace my steps in search was more than impossible. I sat down, unpacked my creel and discovered imbedded in the straw a common old three for a penny number six steel or maybe iron hook. A

blue white diamond would not have pleased me as well.

A search under some stones in a shallow backwater revealed perriwinkles galore, and with one of these impaled on my hook I was ready to cast. The line slowly swirled along with the current, hesitated in a little eddy, there was a chug and a zip and shortly I was landing a twelve inch mountain trout.

Stream of streams, accustomed to the well fished waters of the east where one or two ten or eleven inch trout make a very handsome top for a string, to me it was a revelation.

A sharp rapids, terminating in falls with a great pool at the foot, furnished trout up to fifteen inches, until I moved on for a mere change of scenery. Next a great log jam backed the water up. Creamy foam extended for ten or twelve feet back from the logs. Right at the edge of the foam more big fellows awaited my hook. So I continued until in an all too brief period a creel that tugged heavily



Two fine Rainbows

at my shoulder, and thoughts of the return journey, warned me to quit.

With most acute regret, I turned from that glorious stream, sliding away through the wonderful forest, and dived up through the jungle. Over the wagon road and across the blazed trail, down the skidway lickety-split, by gravity the same as the logs, in a jiffy I had the speeder on the track and was enjoying the "joy-ride" of my life. Nothing to do but work the brake, and well before sundown I was back to camp.

The first person to greet me was my elderly friend.

"Well," he said, "You have been lost."

I displayed my catch.

"No," he said, "You didn't get lost, but it beats me how you ever got there and back by this time."

It does me too, when I think of it.

A. T. HOOVEN, Washington.

THE HUMBLE FROG

To the Editor of FOREST AND STREAM:

I HAVE read FOREST AND STREAM for quite some time and have noticed that your contributors write about all other game but leave the humblest of them

without space in your wonderful magazine on wild game. That is the reason for this little letter about the humble frog. He has given me many a happy hour spent in quest of this wise fellow, for those who have hunted him will acknowledge that he is quite clever in hiding and disappearing when you find him and are aiming at him.

I will try to tell why I consider Mr. Frog good sport. One reason is that he is within easy reaching distance of all. My second reason is that he offers an opportunity for the use of a rifle and my last reason is that when fried he makes a tempting morsel. By that I mean his hind legs and if he is very large his back has enough meat to make it worth while to prepare sometimes too.

Mr. Frog is hunted best with a twenty-two calibre rifle, using the twenty-two short or long cartridge, whichever your rifle is chambered for. It has been my experience that he is most likely to be found in swamps and sluggish moving water. I have never had any success in clear, swift running water.

I am sorry to say that like most of our large game, even the small frog is slowly being wiped out. I speak only for certain sections on Long Island, where a few years ago I could take my rifle or the red flannel and hook and after a short walk reach a swamp where in ten or twenty minutes I could get enough large fellows for a meal: but the inroads of the small boy with the rifle and the slaughter of the small frogs is slowly cleaning him out, and the ones that survive are so wild you can not get near enough to see them before they dive.

C. MATHEWSON, Brooklyn, N. Y.

ON COOKING WATERFOWL

To the Editor of FOREST AND STREAM:

Your inquiry as to the best method of cooking strong flavored waterfowl is one often asked by sportsmen. There are many ways but one of the best is given by a British brother sportsman who says: "I gladly give hereafter a recipe much appreciated in Normandy for cooking strong and oily flavored birds, such as waterhens, coots, scoters, scaups, etc., and making a tasty stew: Salmis.—Do not pluck your bird, but rather skin it. First, carve off the members and cut them into pieces as well as the carcass. Prepare a brown sauce with a lump of butter about the size of an egg and a tablespoonful of flour. When your sauce is getting to a fine chestnut color, add a saucerful of onion chopped very fine; then a bottle of red wine and half a tumbler of water. Season well with salt, pepper, a little nutmeg or Worcester-shire sauce, and a bunch of herbs. Put the pieces of your fowl in the stew, but retain the liver. Keep it simmering for two hours. Then mix in the liver crushed to a pulp, along with a tablespoonful of bread-crust raspings. Stir well for a couple of minutes over the fire and serve. A few potatoes added in due time to cook in the above stew are often thought to improve the flavor."

It would be quite easy to get the half tumbler of water, but where, after July first, will we get the bottle of red wine which our British brother speaks of so flippantly?—[EDITORS.]

DUCKS AND ALKALI

To the Editor of FOREST AND STREAM:

IN the extreme northwest corner of North Dakota, some three or four miles from the Montana line and about the same distance from the Canadian line, lies a small lake, covering some 160 acres, that is very strongly impregnated with alkali. In October, 1916, a party of six of us went out from Poplar, Montana, for a duck hunt. After hunting on another lake some five miles farther west we moved east to the lake above mentioned one afternoon and went into camp. We had very good shooting that evening, but before going to bed it was decided to go back to the other lake for the morning shoot. The writer, not being as young as he was before it was his privilege to wear a G. A. R. button, said he would stay and watch camp. But the others did not go the next morning on account of the weather.

During the night the wind came up and blew very hard from the northwest, and the weather turned so cold that the water in our large milk can was frozen quite hard, and when the writer got up it was still blowing so hard I did not dare build a fire to make coffee for fear the blaze might get away and start a prairie fire. This mention of the weather is really necessary in order to explain, somewhat at least, what had happened, and the very peculiar thing that befell us at this little lake. Now I wish to say right here that if I did not have the evidence of the other five members of the party to fall back upon I would not dare to tell just what kind of luck we actually did have. Four of the men were residents of Poplar, and the other, a Mr. Ferguson, a man who has hunted over nearly all the United States, lives at Culbertson, Montana, but our experience was something entirely new to him.

After eating a cold lunch we took our guns and walked down to the lake for our morning shoot. Arriving at the lake the first thing we saw was what we took to be a wounded duck start out from the shore and go flopping off in the water and to put it out of its misery shot it. As we had not brought along our waders, and as the wind was blowing toward the shore, we walked on, intending to pick up the duck on our way back. We had not gone far before we flushed another duck which acted just like the first one. We shot that and went on, leaving it for the waves to wash ashore. Going a few rods farther across a point we sighted a third duck in the same condition as the others, but we shot it before it had time to get far from shore. While waiting a few minutes for the wind to blow the bird within reach the thought struck us all at once that neither of the three birds appeared to have been winged, as we recalled that all three were using their wings for all they were worth. When we picked up the last duck shot we noticed it was extremely heavy and an examination showed the breast, tail feathers and the underside of the wings coated with what we first took to be ice, as it hung in white balls and crystals. We went back and picked up the other two, and they were in precisely the same condition. Investigation showed it was not

ice at all, but crystalized alkali. The truth was that for some cause better known to the chemist than to us, the extreme cold during the night had caused the alkali in the water to congeal, as it were, and as the water splashed the highly impregnated water against the bird as he sat along the shore, it had accumulated in such quantities on his feathers he could not fly. As soon as the crystals dried, which was in a short time, they turned to white powder and fell off. We picked off some feathers and put them in a box and brought them home as an evidence of the truthfulness of our story, as without this evidence no one could have been expected to believe us. Taking the three ducks back to camp and leaving them we returned to the lake and soon had a dozen nice ducks, all we could carry back, the shore being lined with these flopping ducks. I have simply told facts, and if any other hunter who may read this ever had a similar experience I should be pleased to hear from him.

C. A. BENNETT, Minn.



The biter is bit

A NOVEL WAY TO FISH

To the Editor of FOREST AND STREAM:

I ENCLOSE a photo which will prove of interest to all members of the clan of Isaac Walton. By hook or crook we obtain our ends, but not often in this manner. Fishing with a hellgramite for bait, the common name given by fishermen to the larva of the Dobson or Horned Corydalis, in this instance he proved himself not only a hellgramite, but a heller. Getting the long-looked-for bite I drew in my line with expectancy, sure enough I had a beautiful sunnie and in this particular case the biter was bit. Instead of hooking the fish, the hellgramite had closed his ice tongs most tenaciously on the lower part of the fishes gills thus making a record and novel fish landing for me. Thinking this would prove of interest I quickly got my camera and here are the results. Lake Hopatcong,

I have been told, contains besides its splendid game fish, millions of sunfish. Hopatcong is the Indian name for sweetened water, perhaps that is why the sunfish from its waters are of exceptional sweetness.

J. B. PARDOE, New Jersey.

CONCERNING ARROW-HEADS

To the Editor of FOREST AND STREAM:

OVER most of the Continent of North America are to be found arrow heads, fashioned from flint or other stone.

Could you, through the columns of FOREST AND STREAM or by referring the matter to some one conversant with the subject, give me information as to how these arrow heads were worked and fashioned by the peoples who used them? In the ages they were in use it may be presumed that no tools made of metal were available.

J. W. McILLREE, Victoria, B. C.

To the Editor of FOREST AND STREAM:

FOR the benefit of your correspondent, I will say that stone arrow-heads and similar implements were worked with very simple tools. While it is true that there were always local variations and slight differences in methods of handling the work, just as there are differences in blacksmithing, etc., yet, in the main, the process is the same. There is in fact only one successful way in which stone of this kind can be worked, that is, by chipping. The flint, or more properly, chert, is usually taken from the original strata and is thus somewhat softer and more workable than when exposed to the air. Blocks are reduced to the desired general form by striking with boulders or hand hammers of stone. These forms are then brought into leaf shape about the size of the point desired by striking with smaller stones. Finally, they are shaped and finished by pressure applied with bone or antler points. Further details of the process will be found in general books on the subject.

CLARK WISSLER, New York.

FROM A SOLDIER

To the Editor of FOREST AND STREAM:

AS I am in the army now I find myself going back into the past for that touch with Nature which is now denied me because of my work. I did not know how much I could miss it until I had spent a year in the Army. I am promising myself that, when I get my discharge, I shall go out and build for myself a log cabin and spend the rest of my days in the great out-of-doors. I know now what Mother Nature meant when she said: "Give me a child in his tender years and he will never forsake me."

I have been roaming through quite a number of back copies of FOREST AND STREAM. Age doesn't hurt them. They are just as good as new even though some of them are entitled to quite a number of birthdays.

WARREN KIMSEY, Arkansas.

(SEVERAL LETTERS ARE HELD OVER)



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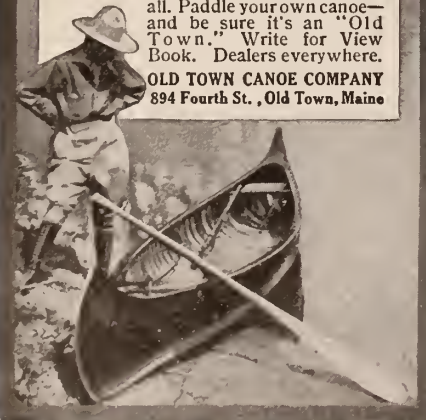
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RIFLES AND RIFLEMEN

THE TYRO'S PRIMER

CERTAIN TERMS, PHRASES AND IDIOMATIC EXPRESSIONS USED BY MILITARY RIFLEMEN ARE DEFINED AND EXPLAINED

By CAPTAIN ROY S. TINNEY, Associate Editor of FOREST AND STREAM

(CONTINUED FROM LAST MONTH)

THE FIVE POSITIONS

PRONE

THIS is technically and tactically the best and steadiest of all the five positions; it is the first one the Tyro should be taught, the one he will use the most (opinions and objections of certain old shots to the contrary notwithstanding) and until he has mastered it, *using the sling*, he should not be permitted to fire a shot in any other way. It is assumed by lying down flat on your "tummy" at an angle of about 45 degrees to the left of the line of fire, spread the legs wide apart, toes out and heels in, sides of both feet flat on the ground. Place the left elbow to the front and as far to the right as is comfortable, then raise the right shoulder and place the butt-plate into that *hollow* I've talked about so much, and see that the heel of the stock is *well up*, not digging into the shoulder. Remember you lay *behind* your gun, not on it. Place the right elbow on the ground and "*freeze your face to the stock*." Don't be afraid, the comb "*won't bite-cha*," but it will sure bump you if you don't get right down hard and close. Let the right elbow come where it will and lay as close to the ground as possible; smuggle right down to Mother Earth and let her steady and support ninety-odd percent of you; the common error being a useless attempt to rise up.

KNEELING

POINT the left knee toward the target and put the right knee on the ground, sitting on the heel of the right foot. The point of the left elbow is placed on or just over the left knee, lean the body well forward and hold as steady as you can. I advise you to learn how to assume this pose, which is simply an outworn relic of the flint-lock days, simply because certain hide-bound reactionaries insist upon its use, but under the present "regulations" a man *always* has his choice between kneeling and sitting; the "*wise virgins*" accept the proffered seat. The best comment I ever heard made on this position was expressed by an old regular army sergeant who has won international honors and possesses the godsent gift of passing on his skill to others.

"I always teach a man how to kneel," he remarked, "and then tell him never to use the fool position." Whenever you meet "kneeling" on the printed score card sit right down and stand on your rights.

SITTING

THIS is a very useful hunting position and is strongly recommended by Stewart Edward White, the famous novelist and African hunter. Personally I have found it to be "heap good medicine" and use it most successfully for long shots where the cover renders the prone position impossible, also it is possessed of sufficient freedom to get moving targets and I always use it when time and conditions permit me to "take a seat." Thin men cross their legs, while us "fat-fellas" spread them out, but the basic principle remains the same, seat slightly higher than the heels, if the contour of the ground will permit, and an elbow resting on, or against each knee, but *never* bone to bone. Dig into the ground with your heels, if you can, it helps a lot and apply all the other basic principles of holding mentioned in the description of the prone work, but in the last analysis every man must work out his own salvation, according to his build and temperament, and only practice and experiment will give the "dope" best suited to his peculiar needs.

SQUATTING

HERE is a new one invented by Colonel Harlee, of the Marine Corps, and taught by the Sailor-Instructors on the great chain of Navy Ranges that culminated in building the biggest rifle range in the world at Caldwell, N. J. At first flush the old timers pronounced it a fancy "garby" trick, but it is nothing of the sort; it is by far the most useful, available and, except for standing, the quickest position of them all. The only man who condemns this position is the chap who never learned how to use it. You do it thus:

Both feet are *flat* on the ground, no toe work, keep the heels down and the buttocks clear of the ground, just a plain, or'nary squat. Slip the points of your elbows well over each knee and you will suddenly find yourself locked into position, steady and solid, also you are comfortable. And let me pause to remark right here that *any position that is not comfortable is wrong*, the slightest trace of strain is *prima facie* evidence that something is wrong; find out what it is at once and don't cease your efforts until you have found a pose that is *absolutely comfortable*. This is the only rule exact that is not peppered with one or more exceptions.

The "garbies" assure me it is steadier than sitting—while I prefer the semi-

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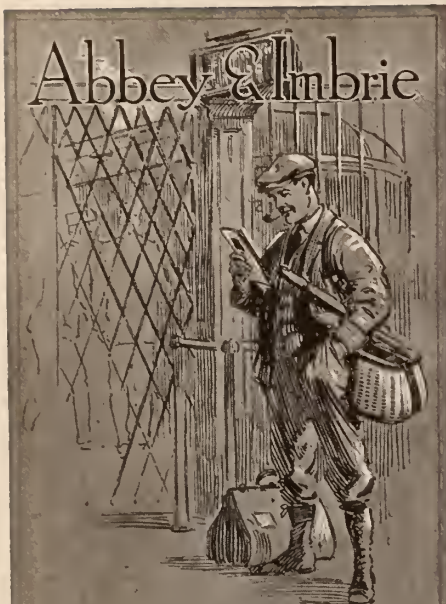
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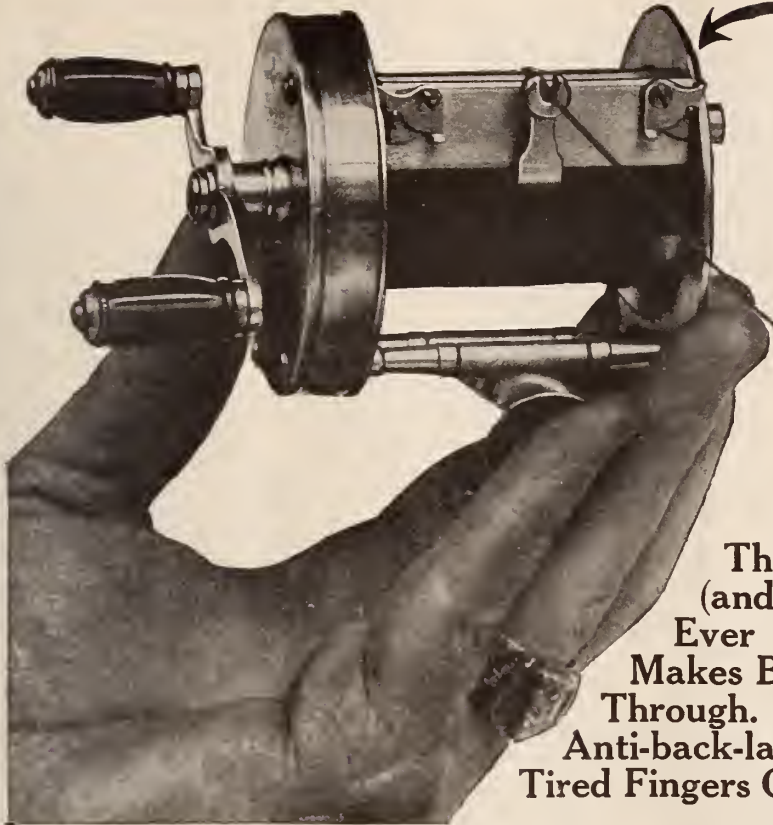
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recumbent attitude, if time permits—yet I must confess the difference is very small, if any, and the chief virtue of the squat-method lies in the fact that a man can drop into it and hop out of it in a split-second, just the sort of thing the hunter needs. As to its value in increasing accuracy, which is the main objective of all firing positions, I would call your attention to this: When using this pose the Bluejackets put ten consecutive shots through the 20-inch bull's-eye of their "B" target from the 500-yard line with such frequency that the performance creates no comment except a satisfied grunt from the man who made the score. And let me whisper this to the Tyro, that's "some shootin." One friend of mine boasted he could beat that method from the standing, off-hand position. I led him out to the 500-yard line and after he had carefully "sighted in" from prone, getting the "white disk" six times, hand running, we started in for record—and the skeptic finished with a score card full of "goose-eggs." Now he's squatting with the rest of us. Like all positions it comes awkward at first, but don't be discouraged, there's a knack to it you will soon catch. The first time Ed. Crossman tried it he added to the gaiety of the occasion by "looping the loop" as the gun cracked. Ed's feelin' got all mussed up, so I'd suggest you make your initial experiments with a .22 rifle as the element of balance and poise plays an important part because of your short "wheel base."

STANDING

RIGHT here is where the doctors disagree. I will not run an illustration because to do so will start a useless argument that would begin nowhere in particular and end in exactly the same place. If I sided with the old "stand-up-and shoot-'em" boys who made history and performed miracles of accuracy at 200 yards on the Standard American and Ring Targets, every hunter in the country would "draw a bead" on me, "cut it fine" and send a high-power letter containing enough journalistic "T.N.T." to sink me without trace. All I dare do is to give the result of long and patient observations and experiments. During "slow fire" at a stationary target, or when snap shooting at moving objects the sling can, with propriety, be dispensed with. I use it at all times, so do a host of others, and that is the "dope" Colonel Harlee prescribes for the Navy Ranges, and Harlee is rather well informed on the subject of military marksmanship. That is why he prescribes, "always use the sling," even for slow fire from the standing off-hand position, because when a man is called upon to empty magazine after magazine in rapid succession he needs the help of the strap and needs it mighty badly. Also one standard adjustment of the sling is suited to all positions and in battle a man is called upon to make some mighty sudden changes, therefore he should have his sling properly secured and adjusted at all times.

I have given the positions in the order in which the Tyro should learn them.



HERE IS YOUR PFLUEGER SUPREME REEL

The Reel That Does More Things, (and Does Them Right,) Than You Ever Thought a Reel Could Do—It Makes Bait Casting a Joy All The Way Through. A Level Winding, Freespool, Anti-back-lash Reel That Takes All The Tired Fingers Out of Casting.

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The Pflueger-Supreme Reel is a perfect combination of level winding, free spool, anti-backlash, quadruple multiplying features that give you complete control over your lure through every moment of the cast and play of the fish.

Every minute on the water is fishing time—every lost motion is eliminated. With the Pflueger-Supreme Reel in action you can keep your lure in the water and moving, that's what interests the fish—untangling a backlash, with the lure floating on the surface or settling among the snags during the operation never landed a fish and never will.

Expert anglers will find the Pflueger-Supreme Reel a perfect working tool, one in which you will take pride and pleasure. From the absolute reliability of it's mechanism you will derive much keen satisfaction. For night and moonlight casting, when the big ones are on the feed, the Pflueger-Supreme Reel has no equal.

By a simple turn of the adjusting screw dial regulator the tension required by different weight lures can be regulated—one complete turn and the reel is an open, free spool, level winder, you can thumb to your heart's content.

You never had a reel you will find so efficient as your Pflueger-Supreme, nor one that will stand up so well under constant casting and that is because the experience of *fifty-five years* of tackle making is behind every reel we turn out. Our guarantee, "without time limit" as to workmanship and material is your protection against an inferior product.

The Pflueger-Supreme holds from 60 to 100 yards, according to the size line used. So that the reel may have the care it should, it comes with a chamois leather bag and a chamois-lined, hinge cover, sole leather case.

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THE GULF RANGERS PART VI

(CONTINUED FROM PAGE 163)

padded smooth by many hurrying animal feet. There were tracks of panther, coon, wild cat and bear.

For a half hour before supper, Hendry and John went for a cruise in one of the glade boats. Obviously, the guide had "something up his sleeve." That this was true developed soon afterward, when Hendry reached for the pole and put his finger to his lips. At the same time he pointed to the shore a short distance away.

A sleepy old 'gator was lying, half in water and half out, his jowls resting in the muck. His eyes were closed. Noiselessly, the glade boat ran up alongside. It was a dangerous thing to do and one that invited real peril, for 'gators have a way of putting up a stiff fight when cornered.

Hendry handed John the three-pronged fish-grail.

The boy accepted the tip and, leaning over, gave a powerful jab at the 'gator's back.

Hendry, ready with rifle, was astonished to a degree when the slimy prey gave one or two convulsive movements and lay quite still—dead! John's lucky stroke. It happens one time in a thousand—had penetrated the alligator's vertebrae. An eight foot skin hangs in a certain young sportsman's specimen room at home.

As the glade boat eased back to the point, Tiptley and Captain Flynt were observed at its far extremity, hands behind backs and poses ruminative. And there against the evening sky was silhouetted the same glistening white flocks of heron and egret.

(TO BE CONTINUED.)

BYGONE DAYS ON CADDO LAKE

(CONTINUED FROM PAGE 157)

place welcomed us and we were almost pushed into comfortable chairs by the servant who was commissioned to pull off our waders, get our shoes and dry socks and as soon as that was done, a waiter of clinking glasses was held before us and a good old southern toddy, added to the great warmth of the fire, made you feel like one of the blessed.

The few years given to our honored and much loved brother sportsman to enjoy such fine shooting and fishing on Caddo was of course shut out when the dam was destroyed, but since he has been called to cross the Great River, it doesn't matter much to him.

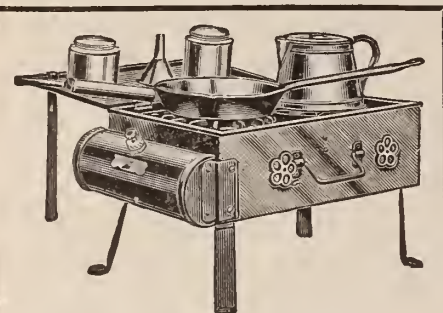
The old ones who used to read FOREST AND STREAM and other sportsmen's journals way back in the eighties should remember his many good articles telling of the shooting had on Caddo. His *nom de plume*, was "Jacobstaff." It will never be possible to meet another man like him nor will it ever be our good fortune to have such wild-fowl shooting again, as we used to have on old Lake Caddo.



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is positively the greatest fish getter ever used on a fly rod. Handles easily on any ordinary fly rod. Has the slow wriggling zig zag movement of a crippled minnow. Great for large and small mouth bass, large trout, pike, and pickerel. Exquisitely finished in Silver Shiner, Red Side Minnow, Yellow Perch, Red Head, etc. Two sizes, 1 3/4 and 2 1/2 in. Can be used on bait casting rods by adding small sinker. Price each 50c.

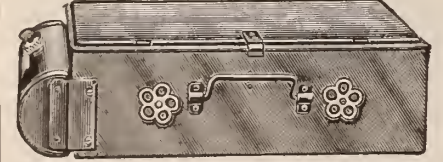
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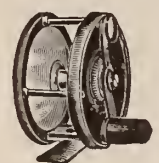
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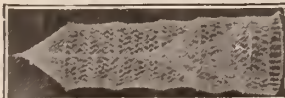
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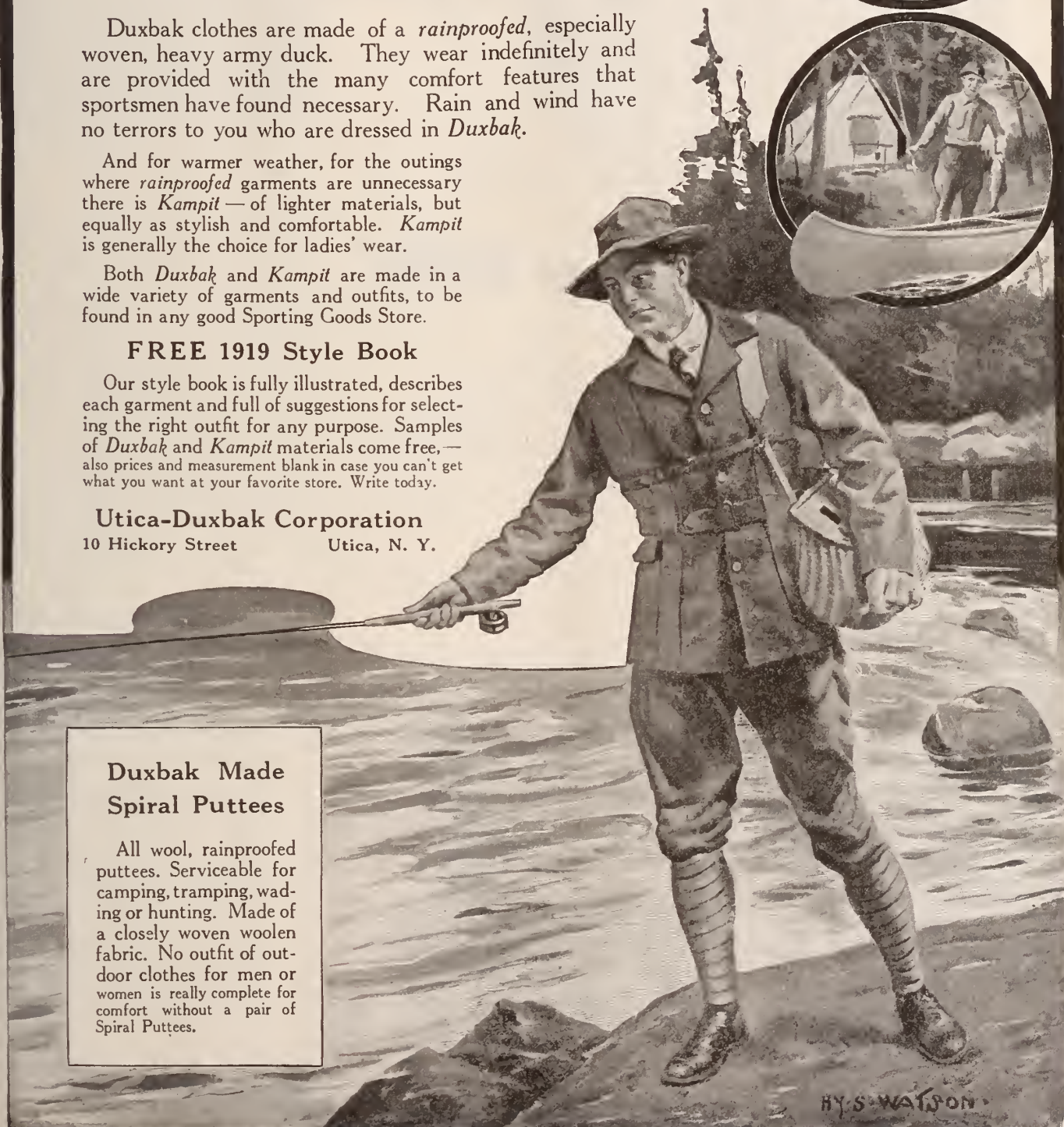
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WOOLWORTH BUILDING

NEW YORK

A SPRING BEAR HUNT IN CASSIAR

(CONTINUED FROM PAGE 155)

How I wish I could describe it! You can imagine its queer noises, like the breaking and tumbling of great piles of ice and rocks, mingled with crunching trees and brush, sometimes in a low murmur and sometimes increasing until it sounds like thunder. We spent a whole day in the presence of this wonderful river of ice and I was greatly impressed with the majesty of its power and the grandeur of its beauty.

OTTER, GOOSE AND GROUSE

WE saw two otter as we drifted into camp and I missed one with a twenty-two automatic rifle at not more than thirty feet. An expensive miss too for their skins are worth twenty dollars each. The presence of otter caused us to camp and watch for them. And, although we saw one of them a time or two, yet we never saw the two together and it may be that the one I shot at was hit. The one we saw was too quick for the precise aim necessary for rifle shooting; a shot-gun would have been the thing.

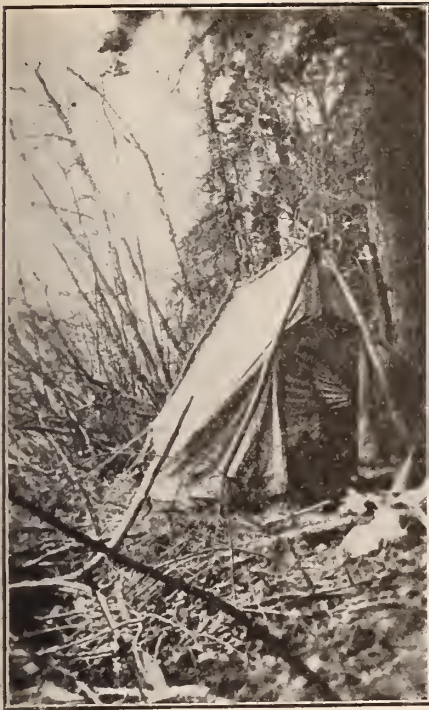
At this camp we saw a wild goose on her nest, and she permitted us to come within a boat's length before leaving it. The five eggs in the nest were almost ready to hatch. The nest was on a little bare spot on an island in a pond far from any brush or cover and was composed of the feathers she had plucked from herself. This wise mother goose could so distribute her ungainly self over her nest as to be unnoticeable until one was within a few yards of her.

This was the mating season of the grouse family and the ruffed grouse were drumming all the time. We had frequent opportunity to observe this interesting manifestation. Often a single bird would keep it up all night within a few yards of our tent.

I had never heard the blue grouse booming but I heard them this time almost continuously for four days and nights. They seemed to be everywhere; on the mountains, on both sides of the river and dozens at times were booming forth their peculiar challenge. Each bird utters the note about every three minutes, the sound lasting about ten seconds and resembling a combination of the hoot of an owl and the rapid beating of a small bass drum. With a great number of them at it this sound would be continuous for hours and at a distance it sounded quite like the droning of an immense hive of bees. I could not realize what this sound was until my companion told me and I had investigated it for myself.

THE GRIZZLY BEAR

AFTER setting up our tent for the last night out we were drifting down the stream about eight in the evening looking for beaver. I had almost forgotten about bears. The sound of the splash of a beaver's tail upon the water near the opposite bank arrested our attention. This splash is an indication of alarm and is a warning of danger to other beavers within hearing.



A camp on the Clearwater

I was surprised that the beaver would sound an alarm on our account as we were so far away. It was fully three hundred yards across the river and I did not think the beaver could see us. I trained my glass on the opposite shore and saw a bear standing on a cut bank intently watching the water, and probably the beaver.

We immediately dropped down the river and crossed below the bear. I offered to help paddle up stream to the bear for the current was quite swift and I was in a hurry but my friend refused, fearing that I would make a noise and preferring that I be on watch with the rifle. He had a job of paddling against the current as it ran in and out among some bad snags and log jambs, but he negotiated it quite skilfully and so noiselessly that we overtook the bear and slipped up on him just as he was lying down on the top of the bank. He had already partly curled down, and the top of his back was towards me. A bullet between his shoulders brought him to his feet growling and facing us and another into the center of his breast turned him from us. We could not see him fall, but at the second shot he staggered out of sight behind the top of the bank and we heard him fall. The death groan followed and my companion said it was safe to advance. We did, with Conover in the lead, and found the bear quite dead. A typical grizzly, but very light colored. His fur was badly rubbed. His claws and teeth seemed unusually large. In short, he was a real mean looking creature even in death. We estimated he would weigh about five hundred pounds. We did not skin him that night but finished our search for beaver and retired pretty well tired out about ten-thirty. The next morning my companion was up and away about five while I slept off a headache. He returned about eight with the bear hide and head and we were soon packed up and a little later were paddling down the stream.



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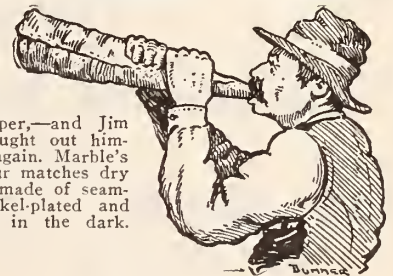
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RETURN TO WRANGELL

THE Canadian Customs House at the international boundary line was our next stop, for no one is allowed to pass it without an inspection for dutiable goods. But the Customs House was without a tenant. Last November, when navigation and travel on the Stikine was ended, Mr. Dixon, the collector at this point, received orders to abandon his post for the winter and report at Prince Rupert.

Dixon was an old soldier and not a woodsman although he had lived on the edge of civilization nearly all his life. He was a good shot, a perfect gentleman and well liked by everybody. In some lines he was above the average in intelligence and training. He could write with either hand and add up a column of figures and write the totals with one hand while he signed his name with the other. The weather was bad when he started down the river to Wrangell, a distance of twenty miles, and he was offered the company and aid of a trapper to see him through; but he declined it as he had full confidence in himself. Nothing was heard of him afterwards and not until March was any search made and then only a partial one. This spring, when travel opened, his boat, suitcase and camp outfit were found on one side of the river and his rain coat and some letters the trapper had given him to mail on the other. The theory is that he was lost in the river or in trying to weather a storm in crossing the eight miles of salt water between the mouth of the Stikine and Wrangell. This river is a dangerous one and has a record of more than one life a year.

The spring bear hunter cannot hope to hunt this territory with any comfort, or in fact hunt at all, unless he hunts from a boat. The reason for this is that the snows are so deep that it is quite impossible for the hunter to get about, and even were the snow not deep the brush is impenetrable, but with a boat and a good man paddling he can be sure of seeing plenty of game.



A beaver cutting on the Stikine



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TROUT AND WATER CONDITIONS

(CONTINUED FROM PAGE 165)

A TROUT can complacently fin himself up and down the watery avenues of his domains and have plenty of time to scrutinize any strange thing that has drifted or fallen into said domains. So this is why you will often find a dallying trout in a deep, slow-running stream and it is why in a quick-running brook you will often encounter one that will make a lightning-quick strike as soon as your lure drops on the water. In shallow water too, trout are inclined to strike more quickly than in deep water. A reasonable explanation of this is that they have but little covering of water for hiding when they dart out from under a bank or a root and they make a hurried intake of their food.

One of my favorite brooks has a stretch of very shallow water above a pool. At the sides of this stretch are a number of roots that run well under the banks, furnishing excellent hiding places for trout. Many a time I have pulled a trout from this shallow water the instant I threw in my lure. In the pool below, I have seldom had a quick strike. This has been one of the places where I have made repeated observations to substantiate what I first accepted as a theory.

In deep water fishing, trout will frequently be extremely exacting as to the position of a lure. Well I remember fishing in a pool about three feet in depth. Several moments after my lure had floated down into the pool, I felt a powerful tugging at my line. I had previously caught a glimpse of the trout and I knew he was an old settler. In his first attempt at sampling my lure he stripped off nearly all the worms. Carefully I re-baited and threw in, but there was no further response to my efforts. Finally the lure circled around an old grape vine near the root of a big tree. Then fun began. Once I had Mr. Trout coming my way as fast as my reel could do its work, but when about three yards away he gracefully disconnected with the hook and dropped back into his pool of freedom. It was some little time before he would again give the lure attention, yet when he did he was in the same spot as when he first "caught on." Diligently I worked to bring him to creel, but without success. I tried various sizes of hooks, worm-baited, and I tried flies of various colors. He wouldn't touch a fly, but worms he would gobble down like a bird. Yet he wouldn't touch them unless the lure circled about that grape vine! Yes, he was exacting to the last letter, and there are more just like him in every good stream.

So the angler who would be successful in catching brook trout should study well the water conditions of brooks, and fish accordingly. Of course, as in every other phase of trout fishing, no hard and fast rules can be laid down and followed at all times, but in the main the conditions which I have explained will prevail wherever brook trout exist. No, you cannot compare brook trout fishing with sea and lake and river fishing. And I guess every enthusiastic trout angler is glad they cannot be compared.

MIGRATION SOUTH OF THE EQUATOR

(CONTINUED FROM PAGE 170)

land, there are a number of species of land birds which migrate northward during the cooler season of the year. Two cuckoos that breed in New Zealand may serve as examples. One of these, a species of *Chrysococcyx*, flies after its nesting season from New Zealand across Australia to winter quarters in New Guinea. The other, *Eudynamis taitensis*, is widely distributed during the southern winter among the Polynesian islands, but it returns southward to New Zealand to breed. Lieut. James Chapin, U. S. A., who spent six years in the Belgian Congo in the interests of the American Museum of Natural History, writes of certain African birds which migrate northward from temperate regions to the Sudan after their breeding seasons. One of these is the Pennant-winged Nightjar (*Cosmetornis vexillaris*). Lieutenant Chapin found that the nightjars cross the equatorial forest belt each year in February and March, after which they become common in the Savannah country to the northward. In July and August, however, they take their departure again, without having laid eggs, and go southward to the region between Lake Tanganyika and the Transvaal, where they breed during September, October, and November.

It is very interesting, considering the relative proportions of land and water in the two hemispheres, to find that certain seabirds of the south make migrations as extensive as those of the greatest travelers among northern land birds or shorebirds. The northern Golden Plover flies from breeding grounds on Arctic tundras to the pampas of Patagonia; Wilson's Petrel, on the other hand, migrates from nest burrows on the Antarctic Continent to the sub-arctic coast of Labrador, or beyond. An account of the extraordinary annual excursion of this tiny water-bird will be found in the Natural History section of FOREST AND STREAM for November, 1918. Many of the penguins of the Far South make extensive migrations at sea, and, moreover, they are so punctual regarding the date of their annual return to the breeding ground that, in several cases, this has been found not to vary so much as a single day from year to year.

TURNING again to the petrel-like seabirds, we find that there are in the neighborhood of twenty species breeding in the south which either regularly or occasionally migrate across the equator into the northern hemisphere during our summer season. One Pacific species, the Slender-billed Shearwater (*Puffinus tenuirostris*), breeds in the subantarctic belt and yet migrates northward to the Arctic Ocean. On the other hand, there are related species, such as the Snow petrel (*Pagodroma nivea*), which migrates in a northerly direction, but never passes beyond the limit of pack ice in the circumpolar Southern Ocean.



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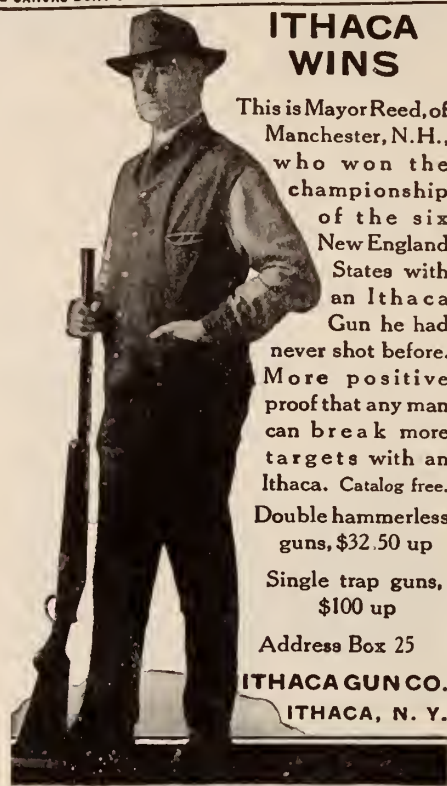
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UNIDENTIFIED FISH

A. J. Sprague, fish culturist for the Alaska Fish and Game Club at Juneau, has discovered something different in the fish world. It was while Mr. Sprague, Charles Davidson, Charles D. Garfield and Frank Metcalf were planting 7,000 sockeye salmon fry in Turner Lake, about 25 miles from Juneau, that the attention of all these men were directed to this strange member of the finny tribe. The sexes are almost identical in appearance, except that the developed ova of the female fish gives her a more round, plump appearance. Those seen and secured were around six inches in length.

The upper and lower jaw of this species of fish, also the head, is decidedly sharp, more so than in the salmon or cut-throat trout. This gives the fish the appearance of the king salmon.

The caudal fin is deeply forked, base of caudal fin is very narrow, head small and to a sharp point. Dorsal fin high and to center; very sharp pointed. The eye is rather large, greenish blue in appearance.

The color of the fish is deep indigo blue above lateral line and silvery below. It fades rapidly when taken from the water. There is an entire absence of spots, which would otherwise assist in classifying or identifying them with the trout or salmon markings in a fish of this size.

DEATH OF A CANADIAN SPORTSMAN

TO the many fishermen who visit Bathurst, N. B., every year to enjoy the good fishing to be had there, the recent death of Mr. Henry Bishop will come as a heavy loss. He was the one man at Bathurst to whom fishermen went to for advice and direction. Many prominent sportsmen have been entertained at his fishing preserves and it was largely because of his unbounded enthusiasm for the Nepisiguit as a fishing stream that it became so well known. Year after year anglers from all parts of the country came to Bathurst and were always sure of a cordial welcome from Mr. Bishop. He will be greatly missed by a host of friends.

THE ANATOMY OF THE CANOE

(CONTINUED FROM PAGE 159)

This shell is covered with wide cotton duck, which should be specially woven. This covering is stretched tightly over the shell and is filled with a preparation that dries hard in from two to four weeks. Then the canoes are finished up with gunwales, seats, etc., and painted in whatever colors are desired. Canvas covered construction gives a very durable canoe. They are about the same weight as the average all-wood canoe but not lighter. They are tough and can stand the exposure to the weather without bad results and they can be easily repaired.

(Illustrations by courtesy of Peterborough Canoe Company.)

HOW TO TIE THE ARTIFICIAL FLY

(CONTINUED FROM PAGE 167)

the extreme end where the tail is fastened, since this makes an uneven protuberance, just where it is not wanted. All the above material should be included up to the point shown in No. 8. You can easily see this makes the lower part of the body even; the upper part after we attach the lower portion to the hook is easy to finish, by comparison. No. 9 shows the silk, tinsel and horsehair applied in accordance with my statement. Tie the silk, the tinsel and horsehair to No. 8, as I have directed, and it will appear exactly as No. 9, as all of them are included in the body. Take No. 9 between the thumb and finger and wind each one evenly in this succession up to the point shown in No. 9; first, the silk, second, the tinsel; six or eight times of this is spirally wound over the silk, lastly the horsehair, which is applied to cover all the body. Each of these must be secured at every individual winding with two turns of tying silk and half hitch, when properly constructed it will appear as No. 10.

IN the progressive stage of making this fly, at this point it is necessary to apply the wings. Select two small speckled mallard feathers, which have been dyed a light yellow; be sure they match each other; tear off the ragged ends; and as much of the other part of the feathers as will make them the size required; place them in opposition to each other; take a piece of tying silk and bind the ends of the feathers, which have been allowed to remain, from a point just below the filaments of the feathers, down the mid rib, for half an inch. All this is illustrated in Fig. 11. Now if you don't do this these duck feathers will straddle all over the country and you can't handle them when you turn the wing back, which is the last operation, with the exception of applying the tying silk, which holds them in place and forms the head. Remember you have a fly in your vise in the condition represented in Fig. 5. Carry the thread of the same figure to the extreme end of the shank and half hitch it. Take Fig. No. 11 between the thumb and finger; place it on the upper side of the hook, allowing it to project the eighth of an inch beyond the shank, and bind it on neatly and securely about a half an inch down the shank, as shown in Fig. 12; cut off all the ends remaining at this point. Now this wing remains just where it is until the remainder of the fly is finished, and it is turned back. Take the constructed portion of the detached body, Fig. 10, and place it in the position shown in Fig. 13; bind it on securely and firmly with eight or ten turns of the tying silk, exactly as indicated. You will notice how this portion of the body is slanted upward; this assures that it will be in its proper position. Wind tightly the ends of the gut which remain unwound in Fig. 13. You then have your detached body curving in a natural way. We will apply the hackle in a moment, when we have finished the upper part of the body, and it is very important, so I will direct you how to prepare it.

THE directions in this line usually given are: apply the hackle, stroke it back and tie it down. This is all "poppy talk," when this method is aired; the party responsible for it does not know how to dress a fly. Select a hackle of the desired size and color, strip it of the undesirable fibres; from the upper part of the mid-rib, Fig. 14, catch it in the right finger and thumb, draw it through the thumb and finger of the left hand until the fibres stand out horizontally or nearly so, Fig. 14. The easiest way for you to complete the remainder of this operation is as follows: Take the hackle, Fig. 14, and secure it in your vise, at the left hand side of it at the point right side uppermost. Grasp in the thumb and finger of the left hand and put it upon the stretch; then run the nail of the forefinger of the right hand on each side of the mid-rib until the hackle is turned over, so to speak, and appears as Fig. 15, same plate. This hackle when fixed in this way will go on beautifully without tangle or ruffle of a feather.

AT this stage you no doubt will be pretty well tired out, but we must finish the fly. You have attached the lower portion of your body, Fig. 13. Wind your tying silk over the part of the gut exposed in Fig. 13, and it will take care of itself. When you wind it will keep the body securely attached, Fig. 15. Take a piece of floss silk, also a strand of horsehair of sufficient length to form the upper part of the body on the shank; tie it as shown in the illustration. This body must be carried up to the point shown in Fig. 15. This will leave room to apply the hackle and form the head of your fly when you bend back the wings. The size and application of this body is shown in Fig. 16. Wind your floss silk carefully and make the body smooth and symmetrical; over it apply the horsehair. Secure both these operations with two turns of the tying silk and half hitch. When you have finished this take the turned over hackle in your left hand and attach it immediately above the body you have just completed. Tie it so that when secured the hackle will point to the left. Wind it evenly and closely until it reaches a point about the eighth of an inch from the extreme end of the shank; tie it securely and clip off any ends that remain. Then bend back the feather wing; bind them down securely and form if possible a neat head to fly; secure with two or three half hitches. This finishes the fly, with the exception of the application of a little white shellac varnish to the head. If you have had good luck your fly will be a counterpart of Fig. 16. Fig. 17 is a detached bodied May-fly, dressed with a transparent wing of my invention. This article deals with but the leading outlines of the art. It will be a pleasure for me to continue these articles on the artificial fly until we master the art of tying the Salmon fly and the fish-scale gnatt.



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MY SUMMER CAMP AT UPPER DAM, ME., on the edge of the most famous trout and salmon pool in America. Completely furnished and modern throughout. \$500 for summer season. Address E. M. Nicholas, 20 E. Broad St., Columbus, Ohio.

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If your dog is sick and you do not know how to treat him, write to us and you will be given an expert's opinion without charge. Pedigree blanks are free for postage—4 cents a dozen. Dent's Doggy Hints, a 32-page booklet, will be mailed for a two-cent stamp. The Amateur Dog Book, a practical treatise on the treatment, care and training of dogs, 160 pages fully illustrated, will be mailed for 10 cents.

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THE GORDON SETTER

THIS handsome breed of Setters derive their name from the Dukes of Gordon, who owned a most important kennel of black-and-tan and black-white-and-tan Setters, at a period considerably in advance of Dog Shows. No claim is made that the Dukes of Gordon originated the breed, and it has also been conclusively proven that they were not responsible for the prejudice against white markings, which was developed at Bench Shows after classes were provided for them in 1861, which resulted in complete elimination of those specimens containing white in any form.

The early history of the Gordon Setter is wrapped in much mystery, considering the fact that they are of comparatively recent origin. A great many writers have stated that in the early days of the breed, the Duke crossed one of his best dogs on a black-and-tan Collie named Maddy, which lived on the estate and was remarkably clever in finding grouse. It is said that she did not point them, her habit being to stop and watch the birds as soon as she had them located. It is conceded, even by those who deny the authenticity of this story, that occasionally one sees the tail of the Collie in strains that trace back to the Duke's kennel, and it is also notable that many Gordon Setters display in working birds, a desire to go round their game just as a Collie goes round a flock of sheep.

Another theory is that the breed is the result of crossing the ordinary Setter on the leggy, black Springing Spaniel. There is a similarity in the physiognomy of the Gordon Setter and the Field Spaniel and the latter in early days was a leggy dog of Setter-like type, so that this cross could have been made without affecting the working characteristics of the Setter. This is a plausible explanation of the dog's origin.

Still another theory provides that the black-and-tan Setter has been produced by a cross with the Irish Setter and the black Pointer, which latter is a Scotch product. This likewise is more feasible than the Collie story. All of the explanations are, however, mere conjecture, and there exists no definite or conclusive information on the subject.

At the present time, the breed no longer exists in purity at the Gordon estates. The dogs there now are heavily crossed with the Laverack and other strains.

The Gordon Setter is a much heavier dog than his English brother, being coarser in skull, thicker in shoulders and loaded down with much useless lumber. In consequence, they lack sufficient speed for present day Field Trials. They make, however, steady, reliable shooting dogs as they have splendid noses and biddable dispositions. Their strikingly handsome coloring and intelligence commend them to many people.

In selecting Gordon Setter puppies, the usual Setter points should be looked for, such as long head; square muzzle; well developed occipital bone; short body; deep chest; straight forelegs; short, straight tail, and the typical black-and-tan markings, the tan of a rich, dark mahogany.

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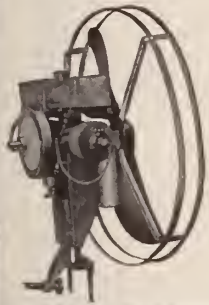
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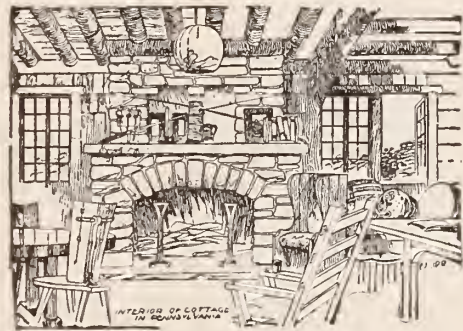
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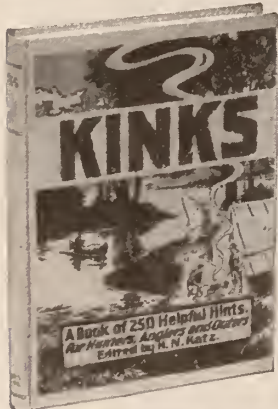
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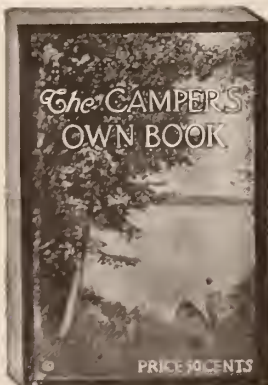
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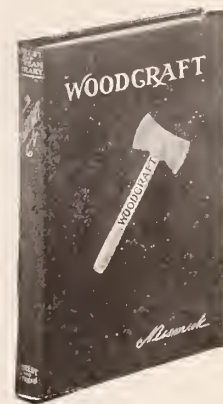
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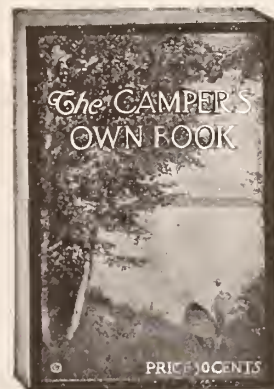
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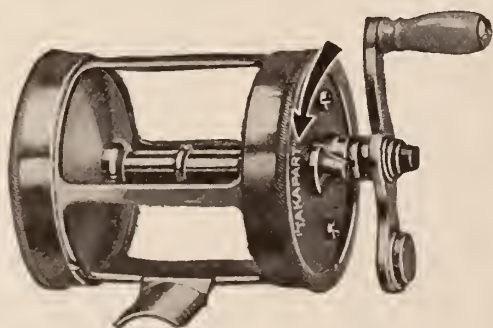
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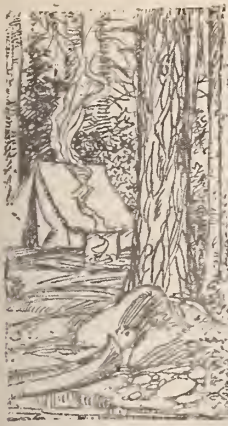
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THE WARM WIND OF SPRING, LADEN WITH INCENSE FROM THE FOREST, FLOATS UNBIDDEN THROUGH OUR WINDOWS AND CALLS US AWAY TO SEEK THE WARY TROUT

By DAVID HAROLD COLCORD

CATCHING a big, yellow and black bumble-bee, I carefully pinned it close to a white chip about twice the size of the bee, and burying a small trout hook beneath this strange bark, I let it float carelessly with the dark current toward the log. Here the Sinnamahoning Creek turned directly at right angles and gurgled its way out of sight under an embankment of logs, appearing again in a still, deep pool several yards below the point of entrance. The size and habits of a brook trout that had lived in perfect safety under this log for several years had become legend; and I and every follower of the stream for miles around had tempted him, time without number, with every known bait from angleworms to crickets, but he scorned them all. He was never known to bite, although we had seen his long silvery form moving in the still water below the embankment. The bumble-bee was well chosen, and this time the big fellow was fooled, for the chip with its small cargo no sooner reached the edge of the log than there was a splash, and a thrilling glimpse of a long, red-speckled side and white belly. Chip, bee, and all disappeared under the log and my line snapped. I had reckoned without my host. That was in June of last year, and right now I am wondering how much he will have grown by June, 1919, and whether he still has a fondness for bees, a la chip.

I N just a few months, a warm wind of Spring, laden with the incense of the forest, will float unbidden through opened windows of thousands of stuffy offices in this half-civilized land of ours stirring memories of open skies, keen appetites, dips down for draughts of cold spring water, and the big fellow that we all lost last season. Are you going back to get him?

Trout fishing is one of the good things of this world. Its disciples place it

Dad. The line was a great human heart-throb carried in that letter to an American somewhere, homesick in the rain and mud of Flanders. I prayed that a day would soon come when Bobby and his Dad could fish once more for speckled beauties on Silver Creek.

Silver Creek! A wonderfully fresh picture to carry in one's memory, diffusing a mental aroma into one's feelings—flashlight light, if you will, by the splendor of its simplicity into the darkest hours of winter, keeping us wholesome and sane. Pity the man or boy who has never spent a night at an old homestead, dead tired after a day's fishing, to lie down to pleasant dreams in the depths of an old-fashioned feather bed. Don't pity him, but interest him and teach him about the science and art of one of the great American outdoor sports—angling for speckled trout.

To enjoy fishing for brook trout, it is almost necessary that one's interest in the sport be

pretty well toward the top in the order of pleasures that make life worth living. The truth of this assertion came home to me through a bit in a published letter that I happened on the other day. Bobby had written to his Dad, who was serving in France, "The trout, Dad, are jumping over on Silver Creek," and when I read that line a choking sensation caught me around my Adam's apple for it was an immediate revelation of so many things between Bobby and his

aroused early in life, but the art isn't learned in a day. It is really a life's study—interesting for its own sake—of the habits of the trout and the art and science of catching them. This doesn't mean that only those who live near a good trout stream, or those who have enough means to allow them to afford an expensive trip, may avail themselves of the opportunity to do a little fishing every season. It is indeed fortunate to be able to spend one's vaca-



Opening day on a trout stream

tion fishing where they are as plentiful as they are in the Rockies, the Adirondacks, or Canada, but here again the sport loses an added zest that is present where they are scarce.

Every season I have gone after the speckled beauties and I am writing this in the hope that my study of the sport and my experience will benefit some fellow angler. Presuming that you are already beginning to plan for the coming season, I offer these tips regarding proper clothing, tackle, bait, and the habits of the trout that are necessary for you to know.

IN speaking of the best clothing for the stream, I have evolved a combination that seems to me to be the most comfortable. I like to wade and cast a fly ahead of me which means that I must either get wet or wear the usual hip-boots. I think boots are too heavy for a ten-mile tramp. They chafe one's heels and tire one out with their weight. Then, if they are carried to and from the stream they are cumbersome and prove to be excess baggage. There is nothing like the smooth sole of a rubber boot upon a slippery rock in midstream to give one a hard fall. Then, if the stream bed is filled with sharp stones, the sole of a boot is too thin to protect your feet from bruises. I always take a heavy, high-topped pair of leather shoes, about two sizes too large, and cut holes about one-half inch in width along the sides, allowing the water to run in and out again. I wear two pairs of heavy woolen socks to afford my feet an easy cushion and keep them warm. A pair of grey overalls and a grey flannel shirt finishes the outfit. You must avoid any color that does not blend with the landscape—trout have a million eyes!

This whole outfit can be strapped into a small, compact bundle and carried to the stream. Here I find a secluded spot, change my clothes and hide my "good" ones under a log or a handy rock. In the evening, a change to dry clothing is made before I leave the stream. The clothing problem is important. If you have to go around a pool to keep dry—the whole day is spoiled.

As for bait, that is largely a matter of taste, both for the fisherman and the

trout. Early in the season—in April and early May—earth worms, or "fishing worms" as they are commonly called, are perhaps the best bait that can be found. However, if there are large trout in the stream, such as Rainbows

hours. Then go carefully over the ground, using a flash light and they are yours. It's worth your effort to take a few of these along for early morning or night fishing, to lure a fastidious big fellow that may scorn your other bait.

I have landed some big trout on "night walkers" that refused everything else.

It's a knack to know how to handle a worm when you get it in the water. String it loosely on the hook, so that the tag ends are free to squirm. Replace it often with fresh worms as a dead, water-soaked worm is useless. Use a long line and let the bait float far ahead of you—under a clump of submerged brush, or log, into any hidden recess. Keep it in motion and free from snags



Nearing the end of a royal battle

and Brown trout, live minnows or small mice are good—you will not catch many trout with these, but when you do get one, the sport of landing him is worth a basket full of little fellows. After the middle of May and from then on until the end of the season, I prefer to use artificial flies, the correct handling of which is an art with ramifications all of its own. The novice is likely to succeed best with worms, but there are worms and worms and devious ways of handling them. For all practical purposes they may be classified into four groups: white grubs found in rotton logs and stumps, white worms found in your garden, little red streaked worms that live in a manure pile, and "night crawlers." Grubs are par excellent but hard to get. Second best is the solid, white, garden worm. I never caught a fish in my life on the little red ones, and the "night crawlers" are for special occasions. A night crawler or "night walker," as they are sometimes called, seems to inhabit the bowels of the earth, for I never dug one to the surface during the day, although I have often found their holes. They travel at night, crawling a short distance from their holes where they lie flat on the ground. They are about as long as an ordinary lead pencil and very active. It's a trick to grab one before he scoots into his hole—they move faster than one's eye can travel. In a dry season they refuse to come up unless you coax them with the garden hose for about two

with a short jerking movement. When a trout takes it, let him run a distance and then retrieve him with an easy jerk.

One must keep the bait fresh, in motion, and playing into hard-to-get-at holes.

FLY casting is fishing de luxe, because it requires more skill, it affords a greater variety of lures, one gets the thrills of the strike, even though the fish is lost, and the larger fish are more apt to take a fly than bait. Furthermore, one can whip a stream easier and cover all of the possible holes where a trout may lurk in less time. Then there is more action, more exercise, as the arm is kept in a constant swinging motion. There is something about fly fishing that has a fascination bait casting can never have. It has more of an element of chance as the catch depends on so many things—the weather, the time of day, the particular fly the trout are taking, and the season. A bright, clear day is never good, except for an hour at sunrise and just at dusk. A muggy, hot day when the air is sticky and thick enough to cut seems to stimulate their appetites until they act ravenous. Such a day as this is good far into the night. I have found it to be a general rule that more trout can be caught for a couple of hours after seven in the evening than during the entire day.

Hatches of fresh flies come on the water every night and sometimes under

favorable atmospheric conditions during the day. When a hatch of flies come out and swarm over the surface of the water, the trout begin to feed. They take the kind of fly that is on the water and seldom strike at another. This means that it is always a good idea to catch one of the flies on the water and use it as a basis of selection when choosing the flies to string on the leader. Try to get the same one from the assortment in your fly book or one similar.

As a general rule, there are a few old stand-bys that seldom fail to catch some trout. They are the Black Gnat, the Queen, the Professor, the White Winged Coachman, and the Great Dunn. It is always safe to have one of these flies and sometimes two on the leader. Freak flies are more attractive in the store window than anywhere else, but once in a great while they will attract the trout when nothing else will. Let me tell you an instance that has some interest besides the question at hand.

The reader will remember the Austin Flood, that swept the town of Austin, Pennsylvania, into Kingdom Come, a few years ago. Above the town was a pulp and paper mill, which had as a part of its equipment, a huge dam across the valley, backing up a volume of water for a mile or more. The stream before it was dammed, used to hold a few trout, but after this great pond was formed they were forgotten. For years they must have grown here unmolested.

I was fishing a year after the disaster, twenty miles below the dam on one of the small mountain streams that flows into the Sinnamahoning Creek. The water was low in the main stream, and probably accounted for the presence of some of the largest brook trout I have ever seen in the smaller streams. In fact, they were so big that they could hardly get over the ripples in travelling from one pool to another. Every deep pool held four or five huge silvery trout—the silver shade uncommon to trout that were natives of this stream. They were beauties that had fattened in that big Austin dam and had been carried out into the river with the flood.

Strange to say, I tried every known lure for a solid week trying to tempt those trout but with no avail. They simply would not eat. One night just about dusk, after I had been whipping the stream for an hour without even

getting a rise, I selected, half in fun, from my fly book a freak fly. It was unusually large—large enough to scare most trout. It contained about every bright color in the rainbow and had a long bright green tail. The first time it struck the water a slippery big fellow churned up after it, and I had a pretty fight landing him. In about an hour I filled my basket with some of the finest speckled beauties I have ever caught. My freak fly was worn threadbare before I stopped, as it was the only one they would strike. Since then, I have tried the same kind of fly a dozen times, but with no success. The incident goes to show how uncertain and, consequently, how fascinating fly fishing is.

THE real fly fisherman has an assortment of a hundred different flies of all sizes and varieties and takes pride in their care and the judgment exercised in selecting the right one on a certain evening. When one realizes that the hook attached to the fly is usually not much larger than one that could be made from the minute hand of your watch, some idea is gained of the skill required to hook a trout when he strikes. The method is to have a limber pole, correctly balanced so that when the fish hits the fly the spring of the pole automatically buries the barb of the hook, but does not tear it out again. I have seen hundreds of fly fishermen jerk when the trout strikes and then wonder why they lost it. If the pole is a trifle too stiff, the spring of its middle joint will tear the hook out as effectively as a strong jerk. I have been ten years getting a pole built with the exact balance that reduces the spring to a fine art. Now, I seldom lose a trout. They hook themselves.

Don't spat the fly on the water, it frightens the fish. As your leader is about to light on the surface, draw it toward you slightly, so that it drops si-

lently. Imitate the fly. As you draw the fly toward you across the pool, give the line a slight trembling motion. It will often coax out a fellow that has ignored the first cast. If you prick a trout and lose him, you might as well pass on to the next hole—he'll not bother you again.

Trout live in the clear, cold water of our mountain streams, preferring the quiet seclusion and protection of the forest. Occasionally there is a stretch of good fishing in an open field, but if you'll recall, the field was usually sandwiched in between two forests. Woods, because of fallen trees that lie across the course of the stream and the accumulations of brush that form swift deep pools, is their natural habitation. If you are a poor amateur at the sport, a good fisherman will often follow behind you and fill his basket, because he knows where the trout lie. You must know "the holes." Furthermore, they will be in different parts of the pool at different times of the day. Early in the morning the trout are at the head of the pool, hidden in the deep water, under a log, a brush pile or a rock. During the day, they are in the center of the pool and late at night are found feeling in the shallow, still water, just at the point the pool breaks into ripples. It is for this reason that bait is better in the morning. It lends itself to being slipped quietly into difficult crannies, where it can sink near the bottom. Before fishing in a pool, stop and make a study of it from a safe distance, to find the best point of approach and figure out the place that the trout will most probably be. After a few studied approaches, the art becomes an instinct and you find yourself as sleuthy and cunning as the trout himself; in fact, the whole procedure, if you are a true sportsman and not a so-called "fish-hog," is a game between you and the speckled beauty, to see which can outwit the other. Nine cases out of ten the trout wins.



Knee-deep in the habitat of the trout

LET'S look at the sport from the trout's point of view. With him, it's a game of life and death. You're not his only enemy. He is continually protecting himself from a host of others, the water-snake, the weasel, the mink, the kingfisher and a number of other enemies make him their prey. Then he must prepare for a drought and move down stream into deeper water in dry season. Did you ever notice that a trout

caught from a shaded pool, or from under a log is almost black, and one taken from an open pool in the swift waters is silver in shade? Again, the shading may be streaked. This is the protective coloration that the Creator provides for all wild life.

The various ways in which different game fish take the bait is interesting. A bass or pickerel lunges forward and strikes a fly or a moving minnow with a viciousness that often snaps the line. They strike from the side and strike to kill. It has always been a question in my mind as to whether a bass strikes an artificial minnow to procure it as food or thinks that it is an enemy. Sometimes I have known them to strike a surface bait and knock it several feet in the air. A bass swallows a minnow at once. I am positive that the brook trout jumps at a fly to get food. The movement is hardly vicious notwithstanding the fact that the fight that follows, if the trout is hooked, is quite the contrary. They practice all the cunning that the most experienced fisherman is capable of combatting. A brook trout jumps from the rear of the bait and usually comes clear out and greets you with a slap of his tail. In fact, they slap onto the water. The Brown trout approaches from the side and slowly sticks his nose out and draws the fly under. Unless you see him, you are liable to mistake the strike of a big one for a little fellow or perhaps a snag. The Rainbow usually jumps clear out, but with little display or spirit. One curious feature of their habits is that they are feeding at almost any time of the day. The Brown trout does not care for the colder water of our mountain streams and if plentiful, they migrate to slower currents and warmer water.

Let me tell you how I got the fever,

for such is the irresistible desire that comes over one with the coming of Spring, angle worms, and warm, quiet days. I think I was about ten years of age when my father sent me to spend the summer with my grandfather. Grandfather's farm was a bit of cultivated land, cut out of one of the wildest spots that is left here in Eastern United States. Why he had continued to live there on the threshold of civilization, as it were, was then beyond my sophisticated comprehension. Now I believe I know why; he loved the solitude of this quiet place. I can see him now on the porch rocking quietly in the dusk, listening to the plaintive call of the whip-poor-will and gazing out over the Sinna-mahoning into the dark forest of heavy pine that bordered the house.

ONE evening, as we sat there, I guess he realized that I was getting pretty homesick. "Boy," he said, "looks a little like rain for tomorrow. I guess we'll let the corn go, and go fishing."

In the morning the sky was lowering and the air was thick and heavy enough to cut. It was an ideal day. Grandfather scraped the chips from some dark, moist soil around the wood pile and dug some solid white angle worms. Then he got a couple of lines and some hooks from the woodshed and we set out across the "timber" back of the house. I remember the infinite care he exercised in selecting two slender saplings for poles. Even today I never go through a patch of woods without estimating the possibilities for fishing poles of every young tree I see. He cut the poles, carefully wound the lines around their tips—starting two feet or more from the handle and winding to the top—in case the pole broke one would still have the line to fall back on and save the fish.

After a mile's walk, we came to Lushbaugh Run, a small mountain stream that had its source five miles up the valley. He baited my hook and his own and we started right in to fish. He always kept a little ahead of me, which I have noticed is one of the weaknesses of the seasoned nimrod. Well, I fished, and fished, and fished, and only succeeded in landing a small crab. I finally ran ahead and caught up with him. There was no fun here that I could see. He let me look in his basket which was half full of nice sized trout. Nothing there to appeal to me. It was beginning to sprinkle, and I wanted to go home. I was disgusted. Then the great hour of my life came. He dropped his pole and took me by the hand. We started away from the stream, making a circle of about 200 feet. When we came within about ten yards of the stream again, we got down on our hands and knees and crawled through some rank ferns to a hidden pool. He cautioned me not to say a word, as the trout would hear us, which by the way, is a mistaken idea. I peeked through the ferns at a still pool of dark water that lay below an old log. I looked more intently from my hiding place, and I saw, it seems now, a dozen big trout lying about two inches from the bottom, fanning themselves with their fins. My, but they did look wonderful. Then Grandfather carefully poked my pole over the trout and dropped a squirming angle worm into the pool. There was a splash and the next thing I knew we were grabbing at a big red and white fellow that was flopping in the ferns.

That was my first degree and although I have fished a great deal since that day long ago, I've never needed another lesson to show me the method or to convince me that there were thrills in catching mountain trout.

SHEEP HUNTING IN MEXICO

A SHORT HUNT IN THE DESERT COUNTRY SOUTH OF THE ARIZONA BORDER RESULTED IN THE CAPTURE OF FOUR SPLENDID RAMS

By E. N. REQUA

HAVING killed most all kinds of big game found in this country excepting the Rocky Mountain sheep or "Big Horn," the most sought after of all our big game, I decided to try Mexico. Securing the name of a guide, I was soon in touch with him and on December 26th, I started for a small station on the Southern Pacific, 50 miles East of Yuma, Arizona. On my arrival I was met by the guide with the outfit, excepting such portions as I had taken with me. I usually carry my own bedding, which consists of a light cotton mattress and three pair of woolen blankets and a pillow, all rolled in a tarpaulin made for the purpose. This tarp is made about 18 inches wider than my bed and about 14 feet long and is a heavy grade of canvas. I spread it out on the ground, make my bed on one half of it and pull the other half up over the bed; on

the sides I have rings and snaps to keep the wind from blowing it off. The heavy tarp on the lower side prevents dampness getting through and the tarp on top protects me from rain. On the road I fold the sides and roll it in a compact roll and tie it with a rope. My bed is always made. The guide's bed consists of a few pairs of blankets. Our cooking outfit included a Dutch oven, frying pan, stew and bread pans, coffee pot, few tin plates, knives, forks, etc. Our stock of groceries consisted of a small sack of flour, one-half slab of bacon, coffee, sugar, salt, pepper, baking powder, lard, prunes, strained honey, condensed milk, canned peas, corn and tomatoes. The rest of our outfit consisted of a small dun pony, and a Spanish mule hitched to a light spring wagon. Not a very elaborate outfit, I grant you, and it did not compare very favorably with the outfits usually fur-

nished by the Northern and Northwestern guides, but it was all sufficient for the section of country in which I intended to hunt.

It seldom rains in Southern Arizona and that portion of Mexico during the winter season and the thermometer rarely if ever reaches the freezing point. Besides it is necessary to go light, as one has to haul all feed and water for both man and beast, there being no vegetation and very little water in that locality.

ALL day we travelled toward the Mexican border across a barren waste with nothing to see, except giant cactus and scattered greasewood. About eleven P. M. we arrived at a pot-hole in the rocks, where we camped. This watering place is known all over Southern Arizona and Northern Mexico. Around this place were hundreds of

graves merely marked by laying rocks on the ground in the form of a cross. My guide told me these people had perished for want of water; that in most part they were well-to-do immigrants travelling from Mexico to the States and that Mexican bandits, hearing of the trip, would make a short cut through the mountains to this place and either poison the water or dip it out of the hole. This is simply a large hole in a rock about 15 feet in diameter. The travelers finding no water, would perish while the bandits would return with their loot.

The next morning we replenished our water supply and by noon we were camped in Mexico. As there were no large trees, it was necessary for us to camp in the open, with nothing above us but the canopy of heaven. As my guide had written me there would be no danger, although the Revolution in Mexico was going on, I was surprised to see him fill his belt with cartridges and tell me to do the same. I asked why we carried so much ammunition, and he informed me we were likely to encounter Mexican outlaws. If so, we would have to shoot our way out or be marched to the interior with a good chance of being stood up against an abode hut.

We cooked our lunch, prepared our beds and lounged around camp until late in the evening, as the sheep do not come down to feed until towards dusk.

I might add here that hunting the "Big Horn" in this part of Mexico is different from any place I have ever hunted them before. The mountains rise abruptly out of the desert and are of granite formation with absolutely no vegetation of any kind upon them. The sheep come down off the mountains in the evening and at night, to feed on the ironwood that grows along the ravines at the foot of the mountain. So instead of climbing to the highest point, which is usually necessary in the Rocky Mountains to get this game, it is only necessary to hunt on level ground near the foot of the mountains and catch the sheep before they return to cover, high up among the rocks. I don't think I have ever hunted in a country so void of vegetation as this part of Mexico and I have never hunted for sheep in any country where they were so easy to get as there.

LATE that afternoon we strolled forth in quest of game and discovered a couple of sheep high up on a ledge of rock. After watching them for some time through our glasses and seeing that neither had a good pair of horns we decided not to try for them. Nightfall found us in camp with no game. On account of the danger from bandits we decided not to build a fire and for our supper we ate the scraps left from our noon-day lunch. As the weather was cool, we soon turned in for the night.

The next morning we were out early; it was necessary to get to the feeding ground by daylight, as the sheep stopped feeding at that time and started back up among the rocks on the mountains, however, they often linger on the lower ledges until 8 or 9 o'clock in the morn-



Four noble rams from Mexico

ing. We hunted this morning without success and after lunch we decided to move further into Mexico and went into camp a little after sundown. While my guide was getting supper, I went over to the foot of the mountains to see if any sheep had been feeding in the canyon near by. About sundown I discovered two, bounding from rock to rock. They looked almost black up among the granite rocks and seemed larger than they really were. I was not long in getting busy. After missing several shots, I finally killed the smaller of the two, which had a fair head. I fired signal shots and my guide was soon at my side to help me dress the game and get it to camp. It was my first sheep and I was feeling fine. We ate supper and I was soon in dreamland.

THE next morning by daylight we were again working along the foot of the mountain and saw a few sheep, but were unable to get a shot, so decided again to move camp. This time we drove around the mountain to the opposite side. Remember these mountains rise abruptly out of the desert and

a person can drive right up to the foot of them with a rig, there being no foothills like most mountains. It was late when we went into camp and we did not go out that evening. By this time the fear of bandits had somewhat worn off, so we cooked a good supper and kept a small campfire until bed time. I listened while my guide told me many interesting stories of his various trips to this section of the country, of his successes with but few failures.

The next morning we were after them again and it was not long before we saw a big ram low down on the mountain. As he was too far away to shoot and there was open ground between us, we sat on a rock and watched him through our glasses. We soon discovered another nearby. The rams soon lay down and we then advanced boldly across the open toward them. When within about 200 yards, they jumped up and ran. We both opened fire. The one I was shooting at went over a little saddle in the mountain, the other ran down the mountain. I knew my guide had hit his, because a mountain sheep when

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Traveling into the sheep country

GAME TRAILS OF CHEVELIER BAY



The GULF RANGERS PART VII

By W. LIVINGSTON LARNED

Harpooning Devil Fish off the Gulf Islands. Adventures on Chatham Bend River, en route to Alligator Bay. The Sport That Lurks in the Shadow of the Mangroves. John Has His First Introduction to "Holy Rollers." Further Episodes in the Strange Expedition that Sought to Discover the Fate of the Florida Egret.

Here truly enough, was a dash of genuine romance: a snug boat, fitted out as a combined trapping headquarters and laboratory for the scientific gathering of Gulf specimens, yet whose hidden nooks and crannies hid unspeakable crime! There must be one day of final, sure accounting.

A few moments before Flynt was ready to put off in his power boat, at the parting of the ways, Tiple y stood with Mr. King on the deck of the *Mae*. He had weakened to the extent of begging a bag of tobacco.

"Going to remain about here a while?" Tiple y asked casually, as he lighted his pipe.

"A little more surveying up Chevelier Bay," was Mr. King's quiet rejoinder.

"Bad crowd up there," continued Tiple y.

"We are on business," said Mr. King, "we MUST go. It's been MY observation, that if you mind your own P's and Q's you can go ANYWHERE. And that's our doctrine."

Tiple y shrugged his shoulders.

"It's a mighty good one if you stick to it," he went on laconically and not without a certain significant emphasis, "well, maybe we'll see you later. The Captain figures that we are due for some more coons off the Key here." He turned as if to climb down into the waiting boat but stopped suddenly to call back:—

"Needn't worry about mentioning our Thickehunahatchee trip. These beggars in this section are jealous of anybody who comes as far as from Key West. Much obliged for the tobacco."

With that he was gone, his bulky form settling upon the power boat seat and his pipe leaving a smoke trail that haloed his shaggy red head.

THERE was less talking that night in the camp on the point, for something seemed to have whetted the suspicions of both Tiple y and his henchman, Flynt. Perhaps it dated back to John's frank questions regarding the flight of the egrets, in their twilight trail over the mangrove tops.

In any event, Captain Flynt was cross and ill-humored to the point of aggressiveness. Coupled with this was his disappointment over bad luck with coon traps. Although he had set a number of them for a distance of half a mile along the game trail that skirted Fifth Lake, the results registered zero. Tiple y studiously avoided the company of his new friends. Soon after Hendry had spread an excellent venison meal, the owner of the *Spoonbill* lighted his pipe and disappeared. Hours

afterward, as Mr. King looked from his tent, before retiring, he saw Mark Tiple y squatting on the point; a black silhouette against the silvered surface of the lake.

This Cypress Fringe expedition had been started under such auspicious circumstances that its rude termination in comparative and impolite silence was disconcerting. Mr. King, however, as camp was broken at dawn on the 27th, paid no manner of attention to his pair of grouchy companions and cautioned John not to make remarks.

The same difficulties were encountered on the downward journey for Flynt, at the wheel of his unmanageable power boat, managed to beach her at the sharp turns with alarming frequency. It seemed good to roll out into the Gulf waters once more, under skies that were matchless.

Nothing had been touched aboard the *Mae* and the *Spoonbill*, rocking impatiently at her anchorage and wearing her coon-skin patchwork garb as a miser might wear his rags was as picturesque, in a mysterious way, as before. Mr. King could think of her only as a sort of piratical cruiser, cruising under light camouflage and with sealed lockers filled with slaughtered egrets.

ALL that afternoon, while John Jr. fished for mullet, or had occasional tries at sharks, Mr. King and Hendry labored over the *Mae's* leaky cylinder, for it was unthinkable to struggle along under this handicap. Some cement was resurrected from the Hendry Curiosity bag and this was prepared and set in place. It would be necessary, however, to allow it to stay over night.

Much to their dismay, on starting the engine the next morning, the cement patch blew out! The wooden pegs, therefore, remained their only alternative and Hendry was on this job up to noon. Mr. King and John, in the meanwhile, ran the launch over to the Key and secured another supply of fresh water from the old well. It was on the return trip that they had a run-in with their first Devil Fish.

At a distance of some two hundred yards from shore, John was quick to spy this hideous, motionless form. It was lying in about six feet of transparent water, apparently oblivious to the presence of a natural enemy.

"What IS it?" the boy sputtered, his eyes widening.

"Devil fish—and a very large one," his father answered, "want to get him?"

"Can't go home without chalking down at least ONE," John exclaimed, "what do we use . . . line and a big hook?"

"Scarcely it will be the harpoon, and a swift, strong jab. Hendry had best attend to our sleepy neighbor; he has had dealings with them before."

And Hendry, streaming with perspiration from work on the engine, gave a whoop of delight when they ran in beside the *Mae* and took him aboard. It was the guide's special pleasure to introduce John to new and thrilling gulf experiences in the fish line.

Very stealthily the small boat was guided to a position almost over the devil fish. Hendry, poised, harpoon in hand, in the bow, waited for an opportune moment. Before the other occupants of the boat realized that this second had arrived, the guide's great, bare arm and rugged body lunged forward, and the harpoon fairly whistled through the air, the rope sawing out a tune against the gunwales.

For twenty feet, in an ever-widening circle, the waters were lashed into a fury of creamy spray and foam. Hendry braced his legs and his soft hat spun overboard. The battle was on.

"Its towing us!" John cried, stooping in the boat, "hold on Hendry, hold on!"

But this warning was unnecessary. Hendry was in his element. The fish grains held, and a great bulk of infuriated devil fish made for deeper water with incredible speed. The boat followed, Hendry looping the stout rope around a seat. And in this gay fashion they zig-zagged down the Key shore for a hundred feet until their catch displayed signs of weakening. Slowly now and with experienced strength, Hendry pulled on the rope. Not a dozen feet from them, a dark, convulsing mass shadowed the gulf waters.

"Machete!" the guide grunted, never removing his eyes from the quarry.



Harpooning a Devil Fish in Gulf water. There is a breathless moment before the final strike. Our camera man is on the job

Mr. King thrust it into his hands and Hendry slashed at the ugly head, until there was no longer movement of the winged monster. It was towed to a sandy beach and spread out for all to see . . . a most unsightly, abnormal creature, with wings that measured six feet from tip to tip and a yawning cavity of a mouth. As John observed, "it was ALL mouth!"

Photographic proof was quite sufficient and the carcas was left under the bending mangroves, as a thank-offering to the little scurrying animals that Captain Flynt had so assiduously preyed upon.

WHAT with one set-back and another there was no getting away in the asthmatic *Mae* until the following dawn. The cylinder, patched up again, was still leaky but they were off for Chokoloskee, Chevelier Bay and some of the large inland streams of which they had heard so much. It was in this district that *The Spoonbill* might have operated, for Captain Flynt, in several talks with Hendry, had intimated as much.

It was slow going, with frequent stops, and they were compelled to lay off the inlet over night in a drizzling rain.

The trip was resumed very early in the morning . . . up a sizable river, where there were constant diversions of beautiful scenery and abundant game of all kinds. Despite Hendry's care the *Mae* went aground at noon on a sizable oyster bar, and it was two P. M. before they could get off again. John fished incessantly and with splendid success but the others were too engrossed in navigation and cylinder leaks to think of baiting a hook.

Only once did they see signs of habitation . . . a little, shabby hut set deep in the cabbage palms and mangroves. They were to learn more of this place later on, as our story will tell. Who knows—perhaps it was from this very shack that the Law Of The Egret Rookeries had birth. There are those,

in any event, who will say that the Watson boys were responsible for the cut trees on Alligator Bay inlet and who posted the sinister signs along a dark and dangerous route.

It was turning grey on the river when they finally came out bravely into the Bay . . . a very remarkable body of water and one that is little known to sportsmen.

Mr. King had heard of this place before leaving Miami, and some portion of its record was known to him. Hendry supplied additional facts from his vast store-house of guide interchange.

"It looks BEAUTIFUL here!" John saluted, as he stood in the bow and looked around him in the gathering dusk, "I'm sure we can expect rich pickings with either gun or rod. Where are we to camp?"

"On the Island," his father answered, "Chokoloskee is a magic name in this territory. Every Indian knows it well. But you shall see. I want to again warn



Another view of a Devil Fish



A great Devil Fish, harpooned, and thrown up on the shore. Note the very large mouth and the two wings

you, however, to be careful . . . talk only when spoken to . . . and ask NO QUESTIONS."

"As bad as that, eh?" John demanded.

"Yes. Chokoloskee is the place of forgotten memories and secret pasts. Many stories come out of Chevelier Bay—most of them are true. And they are not very pleasant stories either. We are now in the heart of the rookery country. Once upon a time, these quiet rivers and bays were white with egrets."

"The channel leading in is very narrow," observed John, "I wonder that a craft as large as the *Mae* can make it—must be deeper than it looks."

"The bay proper is shallow. But the river is navigable from end to end. In the fishing season they bring up boats that draw as much as five feet of water. Incidentally, some of the fishing that's done hereabouts is against the law . . . frankly, openly, brazenly so."

"But why should fishing be against the law?" John queried, somewhat perplexed.

"Because, here at Chokoloskee, they observe no rules. They fish in season and out—all the year 'round. Mullet is caught in large quantities here in the bay. Barrels upon barrels of them are salted and sent to various ports—Key West for instance."

AS the *Mae* forged ahead they made out the dim lines of an island. It was Chokoloskee, the lights were beginning to twinkle in Smallwoods trading post. You sportsmen of far ways and enchanted streams—have you ever visited Smallwood, on Chokoloskee? Have you sat on the crude steps of the little remote store and sorted your fishing tackle? Have you stopped, before landing, and stuffed every dollar of paper money in your sock, lest it be seen by too inquisitive eyes? Have you learned to pay in checks . . . every penny's worth of what you buy, lest the rumor get about that you are "hipped with chink?"

If none of these experiences are yours,

then something truly romantic is still on the horizon of things sportsman-like. For of all the places that lie hidden behind the gulf mangroves, this quaint, mystic island in a fairy bay, is the most alluring, the most hazardous—the most productive of genuine thrills!

The island is about one eighth of a mile wide and a quarter of a mile long and is rather densely wooded with mangroves skirting the edge and interior growth of oaks. There is majesty to the occasional groves of avacado and mango, for the latter, in many cases, were planted back in 1870 and reach the surprising height of sixty feet. Some of the trunks are twelve inches in diameter.

Chokoloskee is virtually a shell mound—that is, where the settlement has its location. These giant mounds of oyster shell and conks struggle up to thirty five feet . . . solid masses of shiny, powdered, brittle shell, topped off by strange and luxuriant vegetation—that grows against every law of nature.

Since 1838 the island has been known and used intermittently. It was a trading post in the earlier days, during the grim Seminole war and its shell fortifications served as forts. A few miles distant, up Turner River, one of the most bloody of all Seminole conflicts was fought. It is historic ground. American troops, be it known, have battled up and down that twisting, serpentine stream.

The *Mae* and her tender were safely drawn up at the rickety dock and left exactly as she was. There was expediency in this. No one locks things up at Chokoloskee. It would be a visible affront to every living mortal thereabouts.

One thing struck the voyagers as peculiar . . . from every direction boats were coming abreast of the twilight hush—fast little motor boats, row boats, dories and glade skiffs. Like enormous water beetles they skimmed from nowhere in particular, freighted with taciturn, sullen men and gaily attired women, to finally touch some portion of the mangrove shore and stop, disembarking their strange occupants.

"It must be a picnic or an election," grinned John, "Gee! I never thought there were so many folks in this out-of-the-way hole. What's the meaning of it, anyhow?"

Just then a solemn bell tolled—a bell so resonant and insistent that its echoes went rolling back into the very heart of the surrounding swamps.

Hendry shoved a brown finger to his lips as he pointed shoreward with the other hand.

"Church," was his low word, "better no make fun. Holy Roller. This Sabbath night. We forget it Sunday."

And this was true. They HAD forgotten. A short distance up the slope that was cut clear of mangroves, they saw the peak of a diminutive, ramshackle meeting house. And further on still, near a shell mound, the trading post.

John stooped and picked up some shells while ascending the rise. They were almost perfect conks, untouched

(CONTINUED ON PAGE 248)



Crawfish grow to prodigious size on the Gulf side and the demand for them is great. One enterprising fisherman goes for his haul in a diving apparatus

INDEPENDENCE IN TROUT FISHING

IT ISN'T ALWAYS WELL TO SKIP A BROOK BECAUSE OF ITS REPUTATION;
IT MIGHT SURPRISE YOU AND CONTAIN SECRETS OTHERS HAVE OVERLOOKED

By EARNEST WARREN BROCKWAY

"AIN'T he a whopper?" shouted little Timmy Green as he came running into Smith's general store with a monstrous trout held out at arm's length. Proprietor Smith was an old trout fisherman and he was the first among several other anglers to exclaim:

"By George, Timmy, he is a whopper! —hey, Tibble and Billings, just look at him."

And they discharged a volley of exclamations while Proprietor Smith rushed the fish to the scales. "A two-pounder, boys! Where'd you catch the old chap, Timmy?"

"Up'n Boggy Brook," piped up little Timmy, "an' I caught him soon's I throwed in my hook under the old dam."

"Beats all," drawled Proprietor Smith as he peered over the tops of his spectacles. "No one has fished that brook before for years to my knowledge."

And there you have it. No one had fished the brook for years for the very good reason that it had a wide-spread reputation of containing no trout. And what angler wants to waste time on a brook barren of trout? If a stream contains only a few, then one might. But Boggy Brook was reputed not to have one solitary trout in its waters. And little Timmy Green, just by luck caught a two-pounder at the first cast.

Here is the secret of how Boggy Brook came to be inhabited. Several years before, unbeknown to any of the village anglers, Charley Brewster placed several hundred small trout in the stream. The following year he went west, married and settled there. The trout in Boggy Brook were forgotten by Charley when he wrote back home, and not another soul knew he had dumped them in the stream. So little Timmy Green, while fishing for red-fins, caught a prize that made the whole trout fishing fraternity of the village gasp. Thereafter, Boggy Brook catches became famous for miles around. And little Timmy became renowned as a discoverer; he was but little lower than Christopher Columbus in the esteem of local anglers.

NOW, every little while there bobs up a little Timmy or a big Timmy discoverer, who causes an old abandoned brook to become a center of angling activity. It may not have become populated by the same method as Boggy Brook became, but in some way trout came there. My discovery of such a brook several years ago has left me a memory which will never become dimmed. It was a little paradise for anglers; and the owner of the stream had told me it had never been known to contain a trout!



Fishing a great picturesque brook

The point, then, I would make is that every trout fisherman, if he has the time, should be somewhat of an explorer and not stake all his faith on reputations of brooks. Sometimes one of these surprise streams will be found in the very center of civilization for the very reason that every angler will think or remark, "Oh, there's no trout there; never has been any." And like the Levite of old he passes on.

Oftentimes the reason for the desertion of a stream by trout cannot be solved. Only the fish know. And perhaps in a few years that same stream will become a center of immigration. Without doubt one of the chief reasons for the desertion of a stream is the inflowing of some foreign substance which means death to trout. Many factories send out such substances. Sawdust is an enemy of trout; seldom will they be found where this abounds. I know of sections in two streams which at one time were filled with trout and which later became useless for fishing because of this reason.

I N writing the foregoing I have had in mind medium and large sized streams, ones whose appearances were tempting to anglers, but whose reputations kept them from visiting them. Now, I want to take up the little streams—insignificant ones, if you please—ones that would be passed by nine times out of ten as being too small to bother with.

They are to be found almost everywhere in a district of brooks. Not a few of them are contiguous to big streams. These little streams are often surprises. True, no large trout, as a rule, live in them, but in these days of "fished-to-death" brooks in populous parts of the country, one must be contented with fair-sized fish. When a big fellow is landed, then one's joy becomes almost excessive.

In a small spring-fed brook, especially, it is surprising how far up trout will go. And they don't stop for shallowness of water, manytimes. I know of a half-pound trout being caught away back in a tiny brook among the hills where the water, except in a number of small pools, would not average more than two inches in depth. This particular chap was caught in one of the pools about four inches deep. Now, not one angler among five would have deigned to "puggle" about in such an unpretentious place. It takes an angler with a sort of prophetic vision to seek out such places. Last season I was driving by a little trickling stream when I saw an angler fishing just the other side of the fence. I saluted him, but he didn't return the salutation just at that instant. But in a half-minute he did. "How's that?" he called, as he flipped a nine-inch trout into the air. That fisherman was always trying little brooks and brooks that others didn't fish. And he brings home the trout.

WHEN one is fishing a great picturesque brook filled with long stretches of still-flowing water, with reaches of dashing rapids and with deep, silent pools all along the way, it takes a whole lot of gumption to desert it, even when fish are not striking nor are likely to strike, and move on to some baby brook. From my own experiences I know that many a time I have clung tenaciously to a stream whose whole makeup was ideal for trout, yet in which there were none. I have been lured on and on under the bewitching influence of appearances. For a long time I was reluctant to leave a big stream for a little one, but when one day I mustered enough will-power to act, I was well repaid for the aesthetic sacrifice I made. I had fished a big stream for several hours with no success. I then went to a tiny stream which trickled down a steep hillside and this marked the finale and saving grace of my day's fishing. Now, I can turn from a brook however alluring and successful-looking and move on to the waters of a little neighbor brook with spirits high in the hope of success.

Yes, it's an excellent idea to have an independent spirit when one would go astream to take the trout.

JAMES ALEXANDER HENSHALL

THE AUTOBIOGRAPHY OF THE APOSTLE OF THE BLACK BASS,
FATHER OF THE GREYLING AND DEAN OF AMERICAN ANGLERS

IF there is any truth in the old adage that "the child is father to the man," or in the more plausible one that "As the twig is bent the tree is inclined," it would seem that the proper thing to do in writing one's biography is to begin at the beginning. Therefore in conformity with these well-established proverbs it behooves me to commence by saying that I was born in Baltimore, Maryland, on February 29, 1836, under the zodiacal sign of Pisces, the Fishes, and thereby hangs a tale.

On a front page of the almanac is to be seen the well-known Anatomical Tableau, on which is depicted the nude figure of a man who has evidently recently undergone an operation on abdominal surgery. He is surrounded by the twelve signs of the Zodiac, each one being germane to some portion of his body, that of Pisces being assigned to the feet. These signs are popularly supposed by the credulous to exert some occult influence, benign or otherwise, on that particular part of the economy to which they are assigned, or to govern the future life of the person who happens to be born under the constellation concerned.

On the celestial map the constellation Pisces is represented by two fishes, somewhat separated, but connected by a string, which fact might be so construed as to suggest some reference to fishing; but I can not delude myself with the notion that because the horoscope at my birth showed the moon in the constellation Pisces, that it had any bearing or influence on my subsequent career as angler, fish culturist or ichthyologist, for the very good reason that anglers are not born, but made. Moreover, the "inconstant moon," which had just left the domain of the constellation of Aquarius, the water bearer, a day or two before, was about to enter the province of the constellation Aries, the Ram. However, the "sign" Pisces being in the feet at the hour of my entrance to this mundane sphere was evidently much more to the purpose, for I began walking when eight months old. As I was destined to have a birthday but once in four years, it was perhaps just as well that I should have had an early start in the human race, in order to insure the probability of my obtaining a show or place if not to win.

MY parents, Rev. James Gershom Henshall and Clarissa Holt Henshall, were born in England. Our family consisted of four girls and myself, and as I have no children it follows that I am the last of our branch of the family to bear the name. Some of my forebears and relatives in England were distinguished artists and musicians, and others were eminent in the Church of England, one of whom, Rev. Samuel Henshall, was co-editor of one of the editions of the Domesday Book. In Edward Jesse's edition of Walton and Cotton's Complete



Dr. James Alexander Henshall

Angler, 1870, there are several fine steel engravings by W. Henshall, and in the British section of the art exhibit at the Chicago World's Fair were several very fine paintings by John Henshall. As both of my grandfathers, my father and an uncle or two were clergymen there is no knowing what my path in life might have been had I been born under another constellation than Pisces.

HAVING started to walk so early in life my memory seems to have kept pace with my legs, for I have a distinct recollection of certain things and events of my earliest childhood. I once accompanied my mother to a health resort in Pennsylvania, and I still have in my possession a letter written by her to my father during that visit, in which she related some of the "smart" sayings and doings of "James." As the date of the letter is September 28, 1838, I was then but two and a half years old, but I remember as it were yesterday some of the incidents of the journey from Baltimore to the mountains.

I recollect well the "chu-chu" cars, the rapid whirling by of trees and fences—there were no telegraph poles then. I remember leaving the train, which had stopped in front of some white houses, and then getting into a carriage with two horses attached, one white, the other black. I also recall driving along a narrow, shady lane where the bushes occasionally brushed the sides of the carriage, but I do not remember the arrival at our

destination, as I was doubtless asleep by that time; but certain other subsequent events stand out in bold relief.

I remember well getting my head fast in the rail fence of the orchard, being tempted by the smell and appearance of the bright red apples. It seems that I forced my head between the rails sideways, and then turning it, I became pilloried until released by some one forcing them apart. Being so very young inexperienced and unsophisticated, perhaps I was not altogether to blame for the misadventure, for I may have inherited from grandmother Eve the susceptibility to be tempted by a big red apple and fell at the first opportunity.

My first experience in wading, one of the essential requisites of the angler, occurred during this visit. Eluding my nurse, I have been told, I wandered to the barnyard where some ducks were disporting themselves in a shallow pond. With the self-consciousness of extreme youth, innocence or ignorance, I suppose I attempted to reach them, but that part of the episode is not clear to me. I distinctly remember, however, the changing of the wet clothes for dry ones, and what is more to the point, the patterns of the two little dresses are firmly lodged in the registering arc of my brain. The wet dress bore a design of miniature pink suns on a white ground, while the dry one was decorated with minute sprays of light-blue leaves, also on a white ground. I have never forgotten them and strangely enough I have always associated them with the quacking of ducks.

Water has always had a strange fascination for me from earliest childhood. I have ever loved the water from the babbling brook, or the unruffled surface of a moonlit lake to the wild, tempestuous seas of a Florida hurricane. I suppose that I came by this love honestly, for it will be remembered that a day or two before my birth the "wandering moon" left the watery wastes of Aquarius and entered the precinct of the constellation Pisces, which circumstance the astrologer would say might account for my predilection for the watery element, but, as my nurse used to say, "I have my doubts." Curiously enough, however, I have sailed over many rough waters, at home and abroad, encountered numerous severe gales, and wallowed in the trough of heavy ground-swells following tropical storms without feeling the least tendency toward sea-sickness.

IT is sometimes said that a bright child evolves usually into a dull grown-up; but, however that may be, I must state, if this is to be a truthful narrative, that I knew the alphabet when three years of age. I have a vivid recollection of the illuminated poster of colored letters from which I learned my A, B, C's. At the age of five years I was reading Peter Parley's Natural History and

Bible Stories For The Young. I must confess, however, that the former book was my favorite, though my heart went out to young David, the shepherd boy, guarding his flock from the ravages of the wolves and other wild beasts. I also admired Daniel in the lion's den, which I associated somehow with the large colored posters of the menagerie. Samson carrying off the gates of Gaza I considered a mediocre performance, judging from my knowledge of gates in general, but his riddle of the lion and bees appealed to me very strongly.

I WAS conversing with an old gentleman one day in reference to early reminiscences. He remarked that he remembered quite well the "hard cider and log cabin" presidential campaign of 1836, when the Whig slogan was "Tippecanoe and Tyler too." I remarked that I also remembered that campaign very well. "In what year were you born?" he asked. I answered, "In 1836." He said he could not understand how I could remember anything that occurred in the year of my birth, but I explained that the campaign he mentioned did not take place in 1836, but in 1840, when I was four years old.

I remember some of the features of the presidential campaign of 1840 much better than those of any subsequent one. I think the first daylight political procession was inaugurated at that time. I was particularly impressed by the handsome silk banners borne by the various state organizations; the log cabin on wheels with coon-skins on the walls and a cider barrel on a bench at the door. I shall never forget an immense gayly-colored ball some twenty feet in diameter, with a wooden tire around the circumference on which it was propelled by a dozen or more men by means of a long shaft. It bore the legend "Keep the ball rolling for Tiptoe and Ty."

MY FIRST EXPERIENCE IN ANGLING
A YEAR or two after the political campaign of 1840 our family removed to the suburbs of Baltimore on account of my mother's health. The place was a very pretty one of about fifteen acres near Lanvale. A rocky stream ran along the road in front of the woodland pasture. Near the road gate was a stone bridge under which ran a small tributary brook. Below this bridge I did my first fly-fishing when about seven years old. Our hostler and gardener happened to be an old English gamekeeper with whom I was soon on very friendly and confidential terms. Usually before bedtime I would sit at the feet of this Gamaliel for an hour, in the kitchen, when he fired my youthful imagination with stories of fishing, fox hunting and shooting. I had already been worm fishing at the stone bridge with a boy neighbor, but "James" would have none of it. He taught me to tie an artificial fly, and showed me how to cast it with a willow wand.

About that time, in 1843 to be exact, a remarkably brilliant comet with an enormously long tail appeared in the northern heavens which we viewed nightly with wonder and awe, and eventually with

admiration and pleasure. One of the flies tied by James he named the "comet" in honor of our celestial visitor. It had a fiery red hackle from my game rooster and a long yellow tail from the canary bird. He called it a salmon fly, but some small ones proved quite effective with the sunfish and chubs. We fished at the bridge every Saturday afternoon, when James had a half holiday, during the summer and autumn.

There was a warm spell the next winter in the latter part of February, and we repaired one day to the old bridge for our first spring fishing. It was on a holiday, I remember, Washington's Birthday. During our fishing I remarked:

"James, I wish I had been born on the 22d of February instead of the 29th, for then I would have a birthday every year instead of every four years."

"Never mind lad," he replied, "any one could be born on the 22d, but not every one can be born on the 29th."

"Yes, James," I assented, "but I would like to have been born on Washington's birthday."

"Never mind, lad," he said, "its well you were not."

"But, James," I persisted, "he was such a good man; he never told a lie."

"Indeed 'e did, and 'undreds of 'em," he said warmly.

"Oh, James, how can you say, so," I added, "he was the father of our country."

"Nay, lad, he was honly a step-father; 'e was a grand rascal; 'e stole this country from Hingland and if it 'adn't been for 'im, this country would still belong to Hingland same as Canada."

I was dumbfounded; it took away my breath. If the old sycamore tree under which we were sitting had fallen on us I would not have been more surprised—such sacrilege! I looked at James aghast; I was horrified. I was disillusioned; I discovered that my idol had feet of clay. I did not fish with James much after that; only occasionally on Saturdays: I usually went alone or with my boy neighbor. However, we moved back to the city the next autumn, and James returned to old Hingland.

IN connection with the long-tailed comet I recently mentioned there hangs another tale. The followers of William Miller, called "Millerites" were looking for the end of the world in 1843. A bright star appeared at mid-day for a short period which I remember seeing. This in connection with the comet was accepted as an additional sign of the end of all things terrestrial. A Millerite family that lived on the same block with us disposed of all their belongings in preparation for the expected flight heavenward. The boy of the family, Johnnie, and I were partners in marbles and tops. He turned over all the assets in hand to me with the proviso that if the ascension did not take place we would continue as before, joint owners of the stock in trade.

I remember well the night the family and a few others of like faith were to "go up." They were assembled in the basement dining-room, seated around a

table, in full view from the street, clothed in long white robes. I noticed that Johnnie's robe was much too large for him and too long in the sleeves. He came to the door to bid his playmates "good-bye," and explained that just before the ascension the robes would be converted into white wings, and congratulated himself that his would be as large as the rest owing to its generous size. I departed for home at the usual hour of nine o'clock, and left the expectant group singing and praying, with Johnnie's shrill treble much in evidence. The next morning he was around, much earlier than usual, for his share of "channeys" and white-alleys, and said that the celestial flight had been postponed or abandoned he did not know which, and did not care much, and blamed the whole thing on the comet.

DURING the next month there occurred an incident that came near being a very serious affair, and one that might have terminated my earthly career at an age so young that my biography would have been a very brief one. It was the custom of Johnnie and myself to go on Saturdays to a swimming-hole two or three miles from town. It was a pool in an old abandoned stone quarry, about half an acre in extent, and was fed by small springs.

On a very warm day during Indian Summer, in the early part of November, Johnnie and I went fishing in a creek not far from this pool. We had very good luck owing to the favorable weather, and our basket was pretty well filled with sunfish and chubs. I then proposed a plunge in the old swimming-hole, and laid a wager with Johnnie of six "commies" to a white-alley, that I would be first in the water. Thereupon ensued a foot race of a quarter of a mile along the dusty turnpike to the old stone quarry, where we arrived very warm and perspiring freely. I was soon stripped and plunged headlong into the water.

It was icy cold! It took away my breath! When I came to the surface I tried to tell Johnnie, not to "come in as the water was fine," but to stay out; but I could not utter a word and breathed in a quantity of very cold water. My head felt full to bursting; my temples throbbed violently; and a great roaring was in my ears. I tried to swim but my limbs refused to obey, and I sank helplessly with my legs and arms flexed with terrible cramps. When I again rose to the surface I tried in vain to call to Johnnie for help, and breathed in more and more icy water.

Then I sank helpless and hopeless in the welter of water, down, down, down, and as it seemed to me, through fathomless depths, until I finally rested quietly and peacefully at the bottom, with no thought of bodily discomfort or mental distress. My last view of Johnnie revealed him stretching forth a pair of long white wings, and seemingly about to soar aloft. What followed was afterward related to me by Johnnie and Jerry, my rescuers.

The pool was at the foot of a railroad embankment, on which were the main
(CONTINUED ON PAGE 250)



CROW WAR DECLARED

HAVING EXHAUSTED ALL MEANS FOR AN HONORABLE PEACE THE HUNISH CROW HAS AT LAST BEEN DETERMINED AN OUTLAW

By W. R. MACILRATH

THE Du Pont Company's National Crow Shoot for 1919 (particulars of which were given in a recent number) is a step in the right direction. But like most steps, in the right direction, it does not go far enough. What we need is a bounty law in each state on crow heads. Then, if at any time it should be found that further reduction in the crow population was inadvisable, all that would be necessary in order to restore the *status quo ante* would be to remove the bounty and the crows could be counted upon to do the rest. The crow is one bird that does not decrease in numbers as the country becomes populated. Any spasmodic efforts to reduce his numbers to the point where they ought to be, must, of necessity, be inadequate.

War should be waged on him all the year round in the same manner as the government wages war on coyotes and wolves in the stock-raising states. It would not be necessary to hire government hunters for the crow. Boys could be counted on to get busy with their 22s and carry the law into effect. Also plenty of men who like shotgun work, could be led to take an interest in it if they could be shown some way to pay for the shells. A nominal bounty law would do this, and interest in shooting crows would grow until the menace would be thoroughly under control.

The crow has friends, the same as all miscreants, and these friends will contend that he destroys wire-worms, cutworms, white grubs, grasshoppers, etc., as well as mice and injurious rodents. This much he has on the credit side of the ledger; he does destroy some of these.

Against this the debit is very heavy. First, he destroys other birds which also destroy these things. The young of birds of all kinds, and harmless snakes which are beneficial, he kills; and who will venture to say that if they were permitted to live they would not do the work of destroying crop pests as thoroughly as the crow himself. The few mice and other large destructive rodents that the crow kills and eats can be safely ig-

nored in any broad consideration of the subject—for they represent a minimum of his diet at best.

On the contrary, hear what Edward A. Samuel in his book on the birds of New England and the adjacent states says: "I have watched crows with field glasses from my hilltop again and again, and I have never kept one in sight for two hours in breeding season that I did not see him take eggs or young from at least one nest." He then goes on to tell of seeing one crow despoil the nests of two robins, two chipping sparrows, and one meadow lark, in the space of one hour. Truly, the bird world is full of tragedies in the pleasant days of spring.

THE crow is the particular enemy of the quail. Bob White's nest is not usually sheltered by dense bush cover and lies open more than that of many birds to this rapacious murderer. The nests of wild ducks and song birds fare no better if the crows find them. If there are no eggs in the nest the black devils are not averse to tearing the young limb from limb and devouring them in the presence of their screaming mother. For it seems to be necessary to the crow's health that they have meat. It is a matter of record that certain crows in captivity were dying, and upon a meat ration being restored to them they soon got well.

The crow is a natural scavenger and does not mind if his meat is a little

up ponds and lakes where dead fish lie. The existence of such conditions always act as a magnet to crows, and they gather from afar to the feast.

Those who have caught crows when young and tamed them say that they have no natural affection for their masters like that of a dog. Their whole interest centers on getting something to eat. They are natural thieves and murderers, the coyotes of the bird world, and there should be a bounty on them as there is on coyotes. While the destructive hawks, like the goshawk, Cooper's hawk, and the sharpshin hawk may more properly be compared to the timber wolves of the air because of their boldness and audacity, and their taste for meat with warm blood in it; these are comparatively few in numbers (in which the comparison still holds) and for that reason are less destructive on the whole to the bird life than the crow horde.

Then there is something magnificent that commands respect, even admiration, in the hawk character that is absent in the crow. The racy lines of his figure, his barred plumage, the expression of his countenance, the fire in his eye, his ringing scream from the sky, his bold audacity and meteoric flight with talons spread to kill—all make for respect while we deplore the destruction he works. There is something about it that thrills the soul. Once I saw a sharpshin in pursuit of a covey of quail. The quail passed overhead from behind with a roar

like a miniature train passing overhead on a trestle. Fifty yards behind the lone pursuer was burning up the air in silent flight, coming like the air bandit that he is; and two hundred yards beyond he struck the covey and exploded them like the cue-ball does the rack-up on the break. Once he struck and a quail fell like a plummet! Then the chase passed on out of sight, the hawk never faltering a second on account of the quail he muffed. There is that quality in a hawk that there is



(Photograph copyrighted 1910 by A. K. Leveing.)

Crows stealing hen's eggs from a chicken run

in a lion, but a crow has the soul of a hyena.

While the wariness of the crow is proverbial, he is not half so wary as the barred-plumaged destroyer, as any one can find out by trying to stalk both of them for a while. I have killed crows with a shotgun, sitting, by walking toward them at an angle as if to pass to one side, watching them all the while out of the tail of my eye, and then when within range suddenly stopping and killing him before he can rise from his perch. But I never did that to a hawk but once, and then a very strong wind was blowing and it seemed he didn't want to take the air.

When stalking crows and hawks with a rifle, the hawk will take wing when you are still 100 or 150 yards away, while the crow will sit, as a rule, until you are just outside long shotgun range, about 75 yards away. It comes much more nearly being impossible to sneak up on a hawk unseen than on a crow. I have shot hawks that came flying into the trees over where I was standing still, but I never remember shooting one where I was doing the moving and the hawk having the advantage of being still, without the hawk seeing me. I actually believe I have shot crows that were asleep.

I remember shooting one when a boy that sat on a low branch over a spring at a range of about ten yards, and I had been walking toward him without seeing him, though he could have seen me. It was in hot weather, in August, and he was sitting with his mouth gaping open like a chicken will do in hot weather. He never saw me at all, before or after, and died without knowing what killed him. I never walked up on a hawk that way. I have jumped hawks and killed them on the wing at short range, but the hawk always saw me and was doing his best to get away. On such occasions the hawk always saw me first. My conclusion is that a crow has a less intensely organized nervous system than a hawk.

THE chief characteristic of the crow is the mob spirit. He joins numbers of his own kind, and depends principally upon sentries to give warning of approaching danger, though feeding crows are in no wise blind, even when the sentry cannot see the intruder. The carnival and the nosy caw-cuss is the black fellow's conception of the real joy of life; and if he can mob an owl or a hawk that is the red-letter event of the carnival.

Most highly specialized forms of animal life are practically immune from capture by man along the line of their particular specialty. But it also seems that practically every animal in nature is highly vulnerable if man can only discover the point of that vulnerability.

The pronghorn antelope, for instance, has such keen sight and lives out on such barren, open flats that it is very difficult to approach him unseen. His speed and endurance is so great that he cannot be run down by a single horseman. It would seem that the pronghorn was fitted by nature to be very seldom taken by man. But inside his pretty head an unfathomable curiosity lies latent, and when he

sees any strange object it starts fermenting right away. Result: He is decoyed in with a waving handkerchief and shot. The whitetail deer, gifted with a keen nose and sight, as well as speed, and the ability to sneak through cover, loses his life by sheer carelessness and disposition to stick around and play hide and seek with the hunter. That is the point of his vulnerability. The lordly lion, dangerous beast that he is, inhabiting thorny scrub impenetrable to man, and a night ranger, falls victim to poison in numbers. In this respect he is highly vulnerable. The bull elephant, impregnable in the center of a herd, is lost if he gets out alone. So it goes through a long list. It seems that every animal can be so easily taken that it is surpris-

short time. You will soon have a swarm of crows over you; flying in circles about two shotgun ranges up in the air (unless you are well hidden) and lighting in the trees from 80 to 100 yards away. They are actually frantic, but unless you are hidden they play safe. I have seen them literally swarm like bees just out of shotgun range directly overhead.

Any shotgun load will kill some, but the efficiency equipment is a duck gun and a duck load, as a good deal of the shooting will be at comparatively long range. There will be a good many more shots at 50 or 60 yards than at 30. The sportsman should carry a sharp hatchet or belt ax for quickly cutting green bushes and constructing hasty blinds. When one neighborhood has been thor-



A good morning's bag of crows with a hawk thrown in

ing if man can only hit on the particular point of his vulnerability.

The above mentioned mob spirit is the point of the crow's vulnerability. He is a highly voluble bird and given to swearing and taunting. Also he yells when in distress. Experienced crow hunters have capitalized this disposition and turned it to his destruction. His extreme social nature and clannishness, together with his disposition to mob something is his fatal defect. Man has turned these facts against him in the invention and manipulation of the crow call. This constitutes, at once, the most popular and most effective method of combatting the black army. What can be done by a man who can properly manipulate a crow call is nothing less than a revelation to the uninitiated. To the man who is accustomed to shooting them on accidental chance and to stalking them, the combination of call and shotgun is a jump upward in efficiency.

If you do not know how to call, go out into the woods—especially in the spring in nesting season—and listen to the various calls. Study what each means. Then try to reproduce it on your call. Get a lusty young crow and hide. Then put your foot on him and squeeze him and he will yell in a way that will bring all the crows in the woods to his aid. If you will listen carefully to his voice and the response from the mob he will teach you much about crow language in a very

roughly "shot out" move on. It is possible to kill practically as many crows as ducks in this way.

BUT there is a rifle system that I have devised that is almost as effective. Any one who has observed crows has noticed that they have a pretty regular route of passage morning and evening in going from roost to feeding grounds and *vice versa*. On these flyways there are certain trees, generally tall and with one or more dead limbs in the top, where crows light as regularly as passengers get off trains at certain stations.

The sportsman simply builds a blind within 30 or 40 yards of such a tree, and hides therein before the morning or evening flight starts. If he has a full line of equipment, he should have wooden crow decoys, or a stuffed owl or hawk, a .22 rifle with telescope, Maxim silencer, and a crow call. He can do very well with a crow call, a flyway tree and any good .22 rifle with iron sights. When the evening flight comes along, we will say, he can start his call, and the crows will stop, alighting on the highest point to look around. That point is the dead top of the tall tree commanded by the sportsman's .22. He has a dead rest and the range isn't over 50 yards, so a kill is practically certain. With a silencer he may get more than one, if two or

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THE BOY AND THE TROUT

DISREGARDING THE ADVICE OF THOSE WHO WERE OLDER AND WISER HE BRINGS HOME A RECORD FISH

By VIRGINIUS

ON a certain cold, showery day with a gale of wind blowing from the east the Boy announced to a group of relatives who were spending the day in front of the big open fire, that he thought he would "go fishin'."

"You poor kid! You can't catch anything with an east wind blowing! What are you goin' to catch, Trout?" A volley of remarks like the foregoing checked his declaration.

The Boy haughtily grasped his plug casting rod and a Hildebrandt spinner with a big red and white fly attached and, stuffing his casting reel in his pocket, left the house without a word. In his heart he knew he was foolish to expect to catch anything on such a day and he knew that the reception awaiting his return empty handed would be very little to his credit. However, he headed for a small pond half full of duck-weed in which he had caught many little pickerel, and resolved to die hard in the attempt to bring home a fish.

Reaching the lower end of the pond he decided to try a few casts from a little water gate which stood at the outlet. The brush and trees which were soaking wet grew so thickly around the pond that the water gate looked like the one best bet.

After setting up his rod he found that there was no room to make a cast of more than 15 or 20 feet but he started in and caught several bushels of weeds in the first few minutes. Finally he became desperate, and removing his leader, tied a small stone within 4 inches of the end of his line and fastened his lure directly to the line.

This enabled him to cast a few feet further into a little hole on his right. The first cast hooked a small pickerel, and the Boy cheered up considerably.

Casting right to the edge of a mass of floating weeds on his left his rod was almost yanked out of his hand by a strike. His line was simply torn off the reel as the fish started up the pond. The Boy's heart was pounding like a trip hammer as he softly breathed:

"Gosh, I've got a shark!"

About 65 feet of line ran out before he could check

the fish and before he realized it, the "shark" started toward him at a terrific pace. He managed to reel in his line fast enough on the quadruple multiplier, and when his fish made a quick swirl about 8 feet out in front of him, he saw the red and white belly fins of a glorious brook trout.

Then was the time that the fish should have made his supreme effort to shake loose the hook, for the Boy was paralyzed with joy and excitement. A cold sweat broke out on his forehead as he realized it was the biggest trout he had ever seen.

The fish was darting back and forth trying to get into the thick weeds at either side of the pond; finally he started up the length of the pond again. The Boy began to calm down a little as he checked this dash, and he bethought him that his landing net was safe at home; also that a 5½ foot plug casting rod is not the best rod on which to handle a big trout.

Many other thoughts as to the situation passed through his mind, and he began to repeat out loud "More big fish are lost by trying to land them too quickly than for any other reason."

The trout suddenly dashed toward him, and at the last instant he managed to turn him aside; the battle would have ended there if he had not succeeded in doing this, as the fish would have gone through the little water gate and it would have been impossible to drag him back against the rush of water.

The fish then chose the center of the pond for a base of operations, leaving this base for a quick dash toward the weeds first on the left and then on the right.

The Boy's wrist began to ache from the constant strain of turning the trout just before the weeds were reached. As he gradually worked the fish toward him, he noticed a bad spot in the old silk casting line.

HIS heart stood still for a minute as the frayed piece of line slowly went down through the girdles and onto the reel. He had barely started to take a full breath of relief before the trout was tearing up the pond again, and when this dash was checked the weak spot was 12 to 15 feet from the tip of the rod.

The Boy aged visibly during the next few minutes while that terrifying few inches were coming back to the reel.

By this time the fish was tiring somewhat—so was the Boy, but the latter got the fish up close with about 5 feet of line out and then wondered what he was going to do next. He carefully lifted the tip of the rod to test the weight of the fish, and then carefully lowered it again. That rod would never lift that trout out of water! The only thing to do was to let the fish run around in circles until he died of old age.

After some ten minutes of waiting for the trout's spirit to pass over the great divide, the Boy pulled the tired fish within reach and leaned over in an attempt to get his fingers in the trout's gills. The fish immediately decided that he was not really so very tired after



He surprised them with a trout that measured sixteen inches

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THE MEN OF TEMAGAMI

ONCE A MAN FALLS INTO THE LIFE OF THE NORTH HE HATES TO GO BACK WHERE RIVERS ARE SLOW AND BUSH ONLY GROWS IN PATCHES

By R. J. FRASER

IT was Maytime and the steady, muffled roar of the Lobstick Rapids, a half mile down the stream gave promise of a pleasing lullaby. Our little tent was pitched inside the treeline that fringed the Abittibi's flow. Supper for two was bubbling in the pot. Seated on a pile of resinous spruce brush, my back against a tree, I watched "Tiny" Becker deftly turn the bannocks in the pan. The fire was burning bright and evenly and the self-satisfied set of the guide's lean, tanned features, as he tested his work with a pointed twig, told me the baking was proving a success.

"You're some cook, Tiny," I ventured to remark, as he sank back into a more comfortable position and settled his head on a softer spot on his duffle bag.

"Oh, just fair" he responded with a smile. "I've made a good many of these cakes in the last ten years and usually manage to turn out something fit for more than canoe ballast." "Strange, though, ain't it," he added, after a pause, "Flipping bannocks for a living."

I agreed with "Tiny," but after short consideration decided for myself that, in spite of being strange it was by no means an unprofitable way of earning a livelihood. Becker, like the most of the guides from the Temagami Lake region, each fall made from four to eight dollars a day with the moose hunters, and in the summer months drew from the tourists—better known to the Temagami men as the "sports"—four and five dollars daily, for trips sometimes extending over four weeks at a stretch. When he accompanied me down the Abittibi to James Bay, Tiny was paid three fifty with food and outfit found. "With the sports there are often good pickings, too," he told me. "Lots of them never return, for a second cruise, and leave their outfits with us—tents, clothes, sometimes a new canoe. One summer a man engaged me a good while ahead and I waited a month for him to show up. When he came he paid me three-fifty a day for all the time I was waiting."

In the long winters the guides keep the pot boiling with the profits from their traplines, for the fur-bearing creatures of the



Tiny Becker on the trail

woods still haunt the Temagami country and in numbers surprisingly great.

American "sports" are always well liked. "We get lots of women, too," said Becker. "Those with plenty of coin and a husband who's afraid of the bush. There are all kinds of skirted sports—from the oldish ones who want to be a mother to you and wash your shirts and supply the missing buttons on your pants, to the novel-reading girls who see heroes in us all. After the first day in the canoes these want to live forever in the

'wilds', but after a two days' wet spell they crawl shivering out of their tent and its 'Mister Guide, we want to go back to the hotel.' I've looked after a few who even wanted to make love but that kind are unpleasant customers. We've got reputations at stake, we guides have, and the fellow who takes liberties loses his license like a shot."

THE Temagami guides are all licensed men and directly responsible to the provincial forest ranger, from whom they obtain their papers. To qualify for these they must show proficiency in woodsmanship, cooking and the handling of canoes—the latter, of course, being most important. A first hand knowledge of the country is also necessary. Slight indiscretions—discourteous treatment of a patron—may result in the suspension of one's license for a year or longer period.

"Once," said Tiny, as he related some of his experiences, "I guided three old maids and took them single handed through the lakes for over a three weeks' jaunt. Say, but they were green—didn't know an axe from a paddle, a tent from a duffle pack. I had to wait on them same as they were children—made their blankets in camp and brought them hot water in the morning. Used to have to stand outside with a painful till one of them sang out: 'Already, Mister Becker.' Then I closed my eyes and passed the pail in between the tent flaps. At night, after they had rolled up into the blankets, they made me come and close the front of the tent for them. I did most everything for those three old girls except tuck them in their beds."

A refusal to go away with a party may cause a guide to forfeit his papers. As Tiny told me, they cannot always pick their charges. "I refused a party but once," he said. "They were a couple of Englishmen and I had just come through a spell of work with one of their kind that took away all appetite for another. This fellow certainly asked too much. One day—and it was a long, hard one at that—I had portaged twice and paddled against headwinds. The bloke never touched a paddle himself and I was



Temagami men waiting for something to turn up

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A REJUVENATION

TO GET THE MOST OUT OF FISHING ONE MUST APPROACH THE HUMBLE CATTIE IN THE SAME SPIRIT AS ONE DOES THE TROUT

By LEONARD HULIT, Associate Editor of FOREST AND STREAM

IT has been aptly said that it is not all of fishing to "catch fish" equally may it be said that it is not all of "catching fish" to catch the more important varieties.

The writer would not for a moment decry the glory of capturing salmon or trout, nor the battle with the sturdy black bass when it is done with appliances which are the last word or thought of the tackle maker's art.

And who will ever aptly tell the supreme satisfaction the angler feels when with deft hand the pliant split bamboo lays the delicate silk line and single gut leader with delusive fly, light as a thistle's down, at the exact spot on the distant pool, to be snapped up by a glorious creature springing like a sunbeam from the depths, to be finally creeled—a victim of fine tackle and fine art? Indeed such "finesse" may be embodied that the wielder of the rod may have spent untold hours debating with an equally enthusiastic fisherman as to whether he should fish up or down stream, and sustaining his argument as a zealot might in defense of his religion.

All this is very well and no criticism is intended but what of the man who "goes a fishin," who knows nothing of technique and has but little wealth to bestow on equipment? If a trout takes his hook well and good; it is unceremoniously taken from the element of its life and strung on a willow sprout to be joined later by some humbler species, perhaps perch or the despised brook sucker.

And who is there to say with emphasis or conclusion there is no touch of technique here? Just one of the many troubles of life may have sent the man to the brookside. Ill health or business cares may be his lot and surcease of these his object. Crude may be his outfit but one may notice the brightening eye as he selects his pliant birch, or maple pole.

Poise and balance may not be as perfect as in the expensive article but here we are confronted by the

mastering fact: the man by his look shows he is completely satisfied with his selection. How much more can one have than that? The man knows the spot he will try; down in the old meadow where the freshets of years have washed out a wide and deep pool at the foot of the old maple. It has been several years since he visited the place and his quick eye takes in the fact that some of the top branches of the old tree show signs of decay.

He heaves a sigh of satisfaction at the thought that all nature travels in the same direction and that he is not an exception. Experience in the past has taught him that he may, if his luck is with him, take any of several varieties of fish.

Trout as well as pickerel have been taken there in the past by him but it is best to never count on such. Commoner fish are always more to be expected and with that too he is satisfied. Oh the satisfaction there is in being satisfied! As he pushes his way across the open meadow a bed of buttercups smile up at him and he pauses a moment to look at an industrious bee drinking among the petals of the flowers.

He falls to wondering where the hive of the workers may be and who may enjoy the delicious sweetness the coming winter when the bee's labor is done in wax.

Would the gold in the buttercups be deeper or the bee more industrious if the man carried a \$50 bamboo rod or was costumed in the latest type of waders and other garments? Would the summer breeze which floats in from the adjacent hills be more delectable to one than to another?

A REDHEADED woodpecker is drumming monotonously on the tree as the man goes under it and he stops and is amused at the undulating flight of the bird across a neighboring field. He falls to wondering why only birds of this family have that queer way with them in their flight. Nature is pulling at his heart strings and he doesn't care whether his fishing pole costs \$50 or not.

As he sits down on the grass by the side of the pool he notices that, while the current causes dimples to come and go as in the days past on the surface, the stream does not seem so wide as when he was last there and he falls to wondering if the clearing up of the woodland above should have caused the change.

He begins sorting out from a promiscuous lot the hook which will best suit the work in hand. It is not even gut snelled, just a common hook with ring into which to tie the line, but it has given him good service in the past and fish have not changed their habits he mentally argues.

Not even a painted top-float was in his kit—just a big bottle cork was all

he brought and then he had not made a hole through it, but his way of earlier days was still with him, and sharpening a stick, he pushed it through the cork, first from one end and then from the other, until the spongy substance gave way and at last an opening was made through which to pass his line.

So absorbed was he with his work that he was fast forgetting why he was there. He was "just fishin'" and happy.

The droning of the bees aloft



Just fishin' and happy

through the tree was soothing to his tired nerves and the deep shade a comfort. Across to the west in a swamp a lot of crows set up a noisy cawing, swooping in and out and the man saw a hawk sitting in a tree and it called to his mind many such scenes he had witnessed when a boy.

Such matters had almost escaped his memory. Then he began wondering why and when the enmity between the crow and hawk began and he almost forgot the cork float on the water. He looked in time to see it disappear and the old impulse to jerk quick and hard was with him but he thought better and tightened well on the line and found a fish was hooked. His pliant birch at last threw the victim out, which flopped on the grass just as it had done when the man was a boy.

"Catfish," he said aloud, "well; why not?" Gingerly he took up the fish, well remembering what that set of spine rays at the sides and at the dorsal fin could do to the hand if carelessly handled. It was not a large fish and not really small, just the average size and the man wondered how many like it he had taken from the same pool when as a boy he had fished there.

"GEE, Mister are they bitin'?" said a voice and the man, half startled, looked up to see a boy very like himself when of the same age. One trouser leg was rolled up to the knee, the other was down to near the ankle; a much faded shirt and a straw hat which had evidently been in contact with a bumble-bee's nest completed his makeup. There were freckles a plenty on his nose and cheeks. He carried a tin can with worms in it in one hand and a maple pole in the other. The man greeted him pleasantly as he approached.

The boy turned the fish over carefully with his toe and said: "There's plenty of 'em in here an' they'll bite better to'ards night," then seated himself cross legged on the grass. The man and boy were friends from that moment. Silently the boy impaled the worm to his liking and the man noticed how nicely he adjusted the cork on the line so that the baited hook would just clear the bottom.

"No novice that," said the man mentally. He noticed too that the maple pole was carefully decorated by stripping the bark clean in sections of six inches, then leaving the bark on for two

inches and so on to the end. "Seems tough we might have a shower," remarked the boy as he removed a pumpkin seed from his hook and looked around at the sky, "'twon't hurt nothin' can't get much wet and the fish will bite better. This old maple is a heap of shelter when it rains." The man saw the boy was inclined to be talkative and he encouraged him. "I lost an ol' whopper pike here last week," he continued, "was tired catchin' sunnies so I cut off the belly of one an' left the fins on an' went skitterin' right there by the spatter dock, an' smack he took it an' most jerked me in. Gosh, I bet he would weigh most four pounds, mebbe five." Then the man made a mental note that the belly of a sunny, with fins left on, was a good lure for pickerel.

THERE was action almost all the afternoon for both boy and man.

While no record fish were taken still it was "fishin'" as the boy put it, and the man was enraptured. The catch was mostly "catties," as the boy called them, with a sprinkling of sunnies and a few perch. Toward evening the man tried the sunfish lure, after the boy had

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A CONSTRUCTIVE CRITICISM

THE IDEAL ROD MUST HAVE A POWERFUL BUTT, PLENTY OF CANE IN THE CENTRAL SECTION, AND A DELICATELY TAPERING TIP

By R. L. M.

IN the August, 1918, issue of FOREST AND STREAM "E. B. A." has written a very courteous criticism of my advice about a rod for Dry Fly Fishing. The late Wm. Halford had used for years heavy rods but towards the end he began to use lighter weapons. But even his last rod, the 1912 model, is I believe too heavy for use with really fine lead-ens. Mr. Halford never used anything but the "finest undrawn" points. At least that is the impression I gathered from conversations with his head keeper and some of his friends and acquaintances.

Now the "finest undrawn" has a diameter of approximately .009 of an inch; whereas "XXX drawn" and "XX drawn" have respective diameters of .007 and .0085 of an inch.

I used the term "Scotch Taper" as that is, or used to be, a trade description of a taper that becomes more pronounced towards the end. The rod that I use now is 9 ft. 6 in. long and has a

total weight of 6 oz. The two top joints weigh together 2 oz.

The diameter of the rod just back of the binding that holds the agate tip in place is 75/1000 of an inch.

It is rather difficult to get the exact diameters of a hexagonal rod but in the accompanying illustration I have shown the approximate taper of this rod.

The diameter at the lower end is 395/1000 of an inch and at the upper end is 75/1000 as already stated.

I have drawn a straight line connecting these two diameters, and if the rod possessed an even taper from butt to tip it would coincide with this line. It will be noticed, however, that the rod begins to taper at a steeper angle than that of the even taper line; it then flattens out and tapers more gradually through the middle section; ending up with a sharper taper towards the tip.

We have here practically the ideal conditions; a powerful butt, plenty of cane in the central section but tapering

to a delicate tip, as shown in the cut.

The deviations between a true taper and the taper of this rod are magnified five times. I took measurements with a micrometer on an average every 6 in. of length. I use an I D I double tapered line the weight of which is 0 oz. 13 dms.

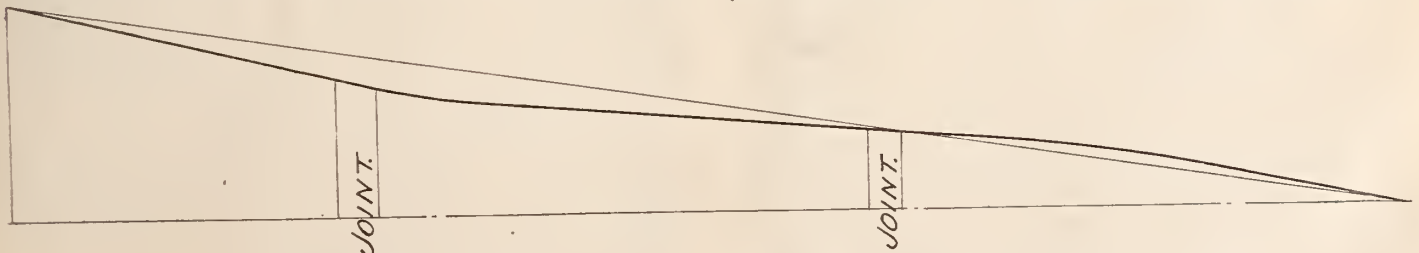
Tapered lines of this particular brand viz., the "Corona Superba" (Hardy Bros.) come in four sizes, viz., (all 35 yds. long):

Extra fine I. E. I. 0 oz. 9 dms.; Fine I. D. I., 0 oz. 13 dms.; Medium I. C. I. 0 oz. 15 dms.; Heavy I. B. I., 1 oz. 3 dms.

WHERE I fish a strong wind generally begins to blow about 1 or 2 p. m. and I find that the I. D. I. line is rather light when the wind gets up. Consequently I am ordering a medium line for next season's fishing.

I generally use XXX points and I do not find that my rod is too powerful for them. I have only had the rod a

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Illustrating the difference between an even and a variable taper from butt to tip

R. L. M. 1919.

FOREST AND STREAM

FORTY-EIGHTH YEAR



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THE OBJECT OF THIS JOURNAL WILL BE TO
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 reation, and a refined taste for natural objects.
 August 14, 1873.

BROOKS AND PREPAREDNESS

A FEW weeks before the opening of the trout fishing season nearly every enthusiastic angler begins to make preparations for the forthcoming days of sport. If he has not done so during the winter months, he gets out his tackle, carefully goes over it in the way of cleaning and making any necessary repairs, as well as adding any new articles by way of replacement or as a supplementary addition. He leaves nothing undone that he may be in readiness at his first opportunity to get out on the brooks.

But there is another phase of preparedness about which very little is said. It is the selecting of brooks. There are many anglers whose business calls them to many towns in as many different states. At the present time much of this travel is done across country by means of the automobile and *en route* many excellent brooks are frequently passed. The angler gazes at them admiringly but, as a rule, that is about all that he does. When the season opens he goes to his favorite brook, or a few favorite brooks, and gets all the pleasure possible. But if he has considerable time to devote to the sport his supply of brooks is pretty likely to run out and he wants to try some new ones. It is then that he has to get busy and make inquiries where to go, whereas if during his journeyings about the country he had stopped for a moment or two at a house near a promising stream and found out all he could about the fishing conditions there and noted it in a little book kept for that purpose, he would know just where to go when the opportunity was presented. Frequently a brook may be posted but by talking with the landowner he may get permission to fish it. This is very often the case. Many times a landowner will post a stream for the purpose of keeping off a certain few who may have raised havoc with fences and caused much damage to crops because of stock going through the torn-down fence. I have known of several such cases. If, on the other hand, an angler promises and lives up to his promise that he will do

no damage to fences or trample through growing crops, he will be given a vocal ticket of entry to the exclusive domains.

We know an ardent fisherman who, whenever he visits other towns, makes it a business to get in touch with landowners who have good trout streams, finds out all he can about the streams, whether they contain many trout and their average size. It makes no difference to him whether he is attending a political gathering in a city, or whether he is out to purchase a cow or a horse, whichever it may be, he never forgets about the "business" of the trout streams. And that angler catches more trout every season and gets more fun out of the game than any other fisherman we know. He doesn't have to sit down and think where to go when he's ready for a start. He's always prepared, you see. And he knows all the early brooks and all the late brooks and the brooks that can be fished with success both early and late.

And there's a point that is worthy of attention. Many a fisherman who has but few days which he can devote to the sport, wastes many golden hours by sticking on some stream which is useless to fish early and *vice versa*. There are such streams in every locality. This point, then, should be inquired into along with all other possible information regarding the brooks.

The plan which we have mentioned takes but a few moments of one's time and, if carefully and tactfully followed out, will bring rewards a-plenty in return.

MAN IS ONLY AN IMITATOR

IN a volume entitled, "Vestiges of Creation," a most interesting and scholarly work, written by the English author and scientist Chamberlain, there occurs this passage:

"The lower animals manifest mental phenomena long before man existed. While as yet there was no brain capable of working out a mathematical problem, the economy of the six-sided figure was exemplified by the instinct of the bee. Ere human musician had whistled or piped, the owl hooted in B flat; the cuckoo had her song of a falling third, and the chirp of the cricket was in B."

This was written in England. The "falling third" of the cuckoo, would seem to apply to the notes of the golden crowned sparrow; our lovely little songster of today.

It is a difficult task to transcribe correctly the songs and notes of birds. What with their slurs, semi-tones and quarter-tones, it requires a musical ear both keen and cultured to portray them. Keeler, of Berkeley, among others, in his "Bird Notes Afield," has been very successful in accomplishing this.

"But we might add that the honey-bee was not the only one of God's creatures who, long before man, exemplified construction upon purely scientific principles," writes Henry R. Browne, of Piedmont, Cal. "We all know the principle of the fireless cooker, with the lining of felt, or something on that order, made to conserve and retain heat. Yet the nest of the humming bird, a marvel of beauty and workmanship, outstrips this invention of man.

The exterior of the nest, exquisitely built of green moss, blends so delicately with the foliage of the tree that it is almost impossible to find it. The interior is lined with thistle down, soft, yet laid in and woven so compactly that neither cold nor dampness can reach the microscopic eggs.

I have seen the mother bird, during a cold and drizzling rain storm, sitting calmly on her nest, her little beak pointing upward, the rain running off her little body, yet serene and confident that all was well."

After all, man is only an imitator.

THE RIVERS

MAGICAL is the power of water! Herodotus tells us that Egypt was a gift from the Nile. Martielle writes, "Had not the equatorial rains been compelled to win for themselves a passage to the Mediterranean, Egypt would not have existed. Egypt began by being the bed of a torrent." The water supply of the country is more important to the life of the people than any other natural resource.

It is not strange that civilization should have developed along the banks of rivers. New York, Philadelphia, St. Louis, Pittsburgh, London, Liverpool and Glasgow, are river cities. These large, densely populated commercial centers have river and harbor waters which are invaluable. What would Paris be without the Seine, London without the Thames, or New York without its Hudson? The primitive Paris, we are told, owed its safety to its being on an island. Venice is secure by being girded about by lagoons.

Rivers not only lend an interest and beauty to a place, but are also means of communication. They bear away the refuse of a city and bring back vitilizing influences. Running water is a great addition to a landscape. We love the stately river, storm-tossed lake and rushing torrent. They appeal to the deeps of life! The superlative; the gigantic holds us in awe.

Portions of our Western desert are being reclaimed by turning into it water. The unproductive waste is fertilized by the coming of the streams. Mark you, fruitfulness does not depend upon the great cataract; the landscape is kept green by innumerable tiny streams that go softly. Again and again are we impressed with the charm of running water.

It was a mere brook the prophet saw in his vision, but he saw it go down the mountain and into the valley, gathering force until it became a mighty river, and as he watched it he lifted up his voice and cried, "Everything shall live whither the river cometh."

SPRINGTIME IN THE CITY

THE city dweller does not live who does not hunger for the country in the Springtime, however much he may boast of city advantages at other seasons of the year.

Perhaps some of them have never known the joy of living where the air is fragrant with the smell of upturned earth; where the plow has furrowed the long rows for the Spring planting; where the dawn comes up in the eastern sky with a smile like that of a round-cheeked child; where the grass and the early dandelions seem to be running a good natured race to see which will grow the faster and where the songbirds fill the early hours with gladness.

There are those so unfortunate as to have never experienced the birth of a Spring in the country, but it is in their blood nevertheless and they long for it even without knowing exactly what it is they miss.

But for the country-bred and the Nature-lover

the call of the country in Spring is like no other experience. It is a compound of joy and sadness, of regret and longing. Longing is the most malignant form of Spring fever. The distracted patient walks across the cobblestones of the city streets and tries to imagine them to be little mounds of soft earth in a country road. He looks at the squares of pavement and thinks of the perfectly laid out rows of daffodils and pansies in a country garden. Sometimes he forgets himself and steps aside to avoid treading on them.

And if in addition to being a nature-lover he be also a sportsman the "case is aggravated," as physicians say. His brain is haunted by visions of sprouting young trees that grow beside a cheerfully murmuring brook which boasts a generous supply of deep pools where speckled trout congregate to talk over the summer's program and where many of them are so good natured as to just spring right up and "wish themselves" caught. Every break in the city curbstone is a possible trout stream when that Spring fever gets into a sportsman's blood, and he just has to go fishing. If he can't get away from town he takes it out in thinking about it, which we are told by so high an authority as Ralph Waldo Emerson is just as satisfactory anyway.

One of the most interesting fishermen we ever knew was a man who had not seen a trout stream since he was a boy. Each Spring he would read the catalogues issued by the railroads extolling the advantages of their especial trout-fishing areas; he would lay in a supply of the latest reels, hooks and flies; he would equip himself with the various kinds of rods; spend hours discussing the relative merits of various fishing equipment—and talk about trout-fishing until Spring had given place to Summer and it was too late to go astream.

DR. HENSHALL'S AUTOBIOGRAPHY

IN this issue of FOREST AND STREAM will be found the first installment of the biography of Dr. James A. Henshall, author of the "Book of the Black Bass," etc., who has been known to the readers of FOREST AND STREAM from its foundation. His autobiography will appear as a serial in sequent and subsequent issues until finished.

As Marse Henry Watterson is now writing his personal and political reminiscences for the *Saturday Evening Post*, covering a period of nearly eighty years, Dr. Henshall, one of his admirers, will in like manner, furnish to the readers of FOREST AND STREAM the observations and experiences incident to his eventful life, from a precocious age of two or three months to his present age of eighty-three years young.

The scenes of his activities cover every state of the Union, Canada, the West Indies and Europe; and his narrative will embrace many subjects from the viewpoint of an angler, naturalist, sportsman and yachtsman. Dr. Henshall practiced medicine and surgery for a number of years, but gave up his profession for scientific pursuits. He is ex-president of the American Fisheries Society, also of the Tampa Society of Natural History and the Montana Society of Sciences, is ex-secretary of the Cincinnati Society of Natural History and of the Cuvier Club, and was assistant chief of the Department of Fisheries at the Chicago Columbian Exposition. He received a silver medal at the Paris Exposition of 1900, and a gold medal at the St. Louis World's Fair in 1904, for literature pertaining to fish and fishing.



A FRIEND of the writer, interested in the coloration of fishes, has asked that he place on record a sketch of his knowledge and interpretation of their coloration. In discussing their colors, it is a convenience to divide fishes into several groups.

1. Free-swimming fishes are those which spend the greater part of their lives moving actively about in the water not far from the surface, approaching the bottom or floating weed or other floating objects comparatively rarely or by chance.

2. Bottom and weed fishes are those which spend much of their lives near the bottom or close to or among floating weed and other objects.

3. Reef fishes are those which spend the greater part of their lives moving actively in the water, near, or among, the intricacies of tropical reefs.

4. Deep-water fishes are those found at considerable depths.

The colors of free-swimming fishes are mostly simple, white beneath, silvery on the sides, bluish, greenish or brownish above, sometimes more or less mottled (Mackerel).

The colors of bottom and weed fishes are more strongly, often intricately, marked, generally neutral in tone, paler below.

The colors of reef fishes are the brightest, most contrasted, their markings often bold and bizarre.

Deep water fishes can not be so successfully generalized as to color, but among them we find three types which are sufficiently prevalent to be worthy of discussion, a red type, and one in which almost the entire fish is of a dark lustrous silver, at moderate depths; and a black type in greater depths.

In the free-swimming group there doubtless is a correspondence between the color of the upper parts of the fish, and that of the water in which it swims. Some persons will claim that there is little variation in the color of water. Such, however, is not the writer's experience. The water of ponds and bays is variously brown; that of moderate depths on continental shelves (off New York, Newfoundland Banks, North Sea, between the Falkland Islands and South America), sea-green; that of the deep-sea in general (Gulf Stream, Trade-wind belts of all oceans, etc.), strong blue, etc. This color is what one sees by looking directly down into the water, not the surface color, due more or less to reflection, and which varies with weather conditions. Looked at at the proper angle in the right weather the deep sea and a muddy pond give the same bright blue surface color.

THE COLORS OF FISHES

THAT THE VARIED COLORS OF FISHES SERVE A USEFUL PURPOSE IS A REASONABLE HYPOTHESIS

By JOHN T. NICHOLS

In general free-swimming fishes from brown waters are brownish above in life (Minnows); those from green waters, green; from blue waters, blue. There is a particularly close correspondence between the blue of certain off-shore fishes (Flying fish, etc.) and that of the water in which they are found.

Conspicuousness is unquestionably a detriment to free-swimming fishes. They continually prey on, or are preyed upon by, quick-sighted fishes or other creatures; often they both prey and are preyed on. Pretty surely their colors tend in the main to render them inconspicuous—the white of their underparts against the bright lower side of the sea surface, the brown, green or blue of their backs as the case may be, seen from above against the corresponding sea color. As compared with one of their number dead and lying on its back or side, their inconspicuousness often verges on the invisible. That their colors are always those that give them the lowest visibility is, however, not true. For instance, the adult dolphin is more or less bright yellow behind and below, just in that quarter where a fish is most open to attack. As a correlation we may note that the size and speed of the dolphin are such as to render it practically immune from attack, and that the yellow should enable these fish, which hunt wide stretches of blue water by sight in small schools, more readily to keep together. If one wished to paint a conspicuous mark in this blue water, yellow would perhaps be the best color to use.

THE majority of species, certainly in temperate seas, belong to the second group of bottom or weed fishes. It is in this group that we find species whose colors match their surroundings so wonderfully that even the most sceptical naturalists will admit that they are protectively—that is, concealingly—colored. Notable examples are the gulf-weed fish, found only in the drifting gulf weed, and the flounders which lie on the bottom. The fact of concealing coloration here is obvious.

I am of the opinion that throughout this group the colors of the majority of the various species tend to conceal them, or that they set limits to the conspicuousness of each. It is sometimes argued that when two species of animals with the same habits on the same territory are differently colored they cannot both be concealingly colored. In fact, this is a

favorite formula with those who argue against wide existence of concealing colorations among animals. Its weakness as an argument is two-fold. First, the habits of no two species are exactly alike, or even those of the two sexes, or of the young and old. Second, concealing coloration is a relative matter. With a given environment and habits, a single color and pattern very likely gives the lowest visibility, but several different colors and patterns may give a sufficiently low visibility for the needs of the animal.

Compared to those of group two, the boldly colored reef fishes (Group 3) have a high visibility. This statement is based on not inconsiderable personal observation, and agrees with the observations of most naturalists. The reefs and their agility enable them to flaunt with impunity colors which would be disastrous to other fishes.¹

THE colors of deep water fishes are the most puzzling, perhaps because we know least of the habits of this group and the conditions under which they live. In the deep shadows of the ocean depths lighted only by flashes of phosphorescence, the frequent black fishes would be expected to have a low visibility. The red species common in intermediate regions where little daylight penetrates would also have a low visibility, though conspicuous at the surface, because the light must penetrate so broad a belt of the green or blue water before reaching them. It is possible that a concealing value accounts for the black and the red. It is possible that the fish obtains physiological benefit from the absorption by its body of the faint light, an absorption facilitated by these colors. The silvery species differ from silvery surface fishes in the lack of white in the silver, and comparative absence of dark backs. Some of the Lantern fishes, small silvery, deep-water species which come to the surface at night, have scales so burnished that the fish form almost perfect mirrors. They have a very low visibility at night.

Any naturalist with a wide experience of fishes in different habitats will, I think, see the force of the grouping presented above and agree in the main with the generalizations. Of course there are exceptions and special cases which it does not cover. There is a certain type of large-eyed, nocturnal red fish found on the reefs which one might readily class with the conspicuous diurnal species, some of which are red. Most of these

¹ See Reigard Pub. Tortugas Lab., Carnegie Inst., Wash., 2, 1908, 257-325. Nichols, *Am. Mus. Journal*, Dec., 1916, 507-511.

FIELD TRIALS AT PINEHURST

THE SPORTSMAN WHO FOLLOWS A WELL CONDUCTED FIELD TRIAL WILL BECOME MORE SKILLFUL IN THE HANDLING OF HIS OWN DOGS

By RODNEY RANDOM

SOMETHING like a quarter of a century ago the Tufts family of Boston (father and son) started out to make Pinehurst, N. C., the greatest winter rendezvous for out-of-doors people in the world, and it may be truly recorded that marvelous progress has been made in that direction, for today Pinehurst is the winter mecca of the golfing world. The trap-shooting fraternity have also seized upon the place and made it their home, the winter tournament of the clay bird smashers being the star event of the season, and as a further attraction for the devotees of the shotgun and the bird dog, Field Trials have been introduced and celebrated. Field Trial stars raced there last month under ideal conditions. To the man who shoots over a pointer or setter on the wooded hillsides of New England, the prairies of the west, or in the quail fields of the south, a race between bird dogs is an event of constant interest for there he can observe and study the finer points of bird dog work as brought out and emphasized by competition between highly developed dogs with skillful handlers.

The average dog owner believes that he knows all about a bird dog that is worth while and feels sure he can tell a good one from a bad one. The estimate of a dog that a man forms in the hunting field however, is based largely upon whether he is registered a successful shot at the birds, and the appreciation of a dog is frequently measured by the number of birds which are killed.

In a Field Trial all is different. The mere killing of birds is not taken into consideration and dogs are shot over only to determine whether or not they are steady at the report of the guns, or gun shy, and many trials are run without a bird being killed. The judges, men of long experience, follow the dogs in the most dispassionate manner and keep them under constant surveillance. The speed and energy that a dog throws into his work, the intelligence that he displays in working a country and going from one birdy spot to another, the manner in which he approaches a likely place so as to get full advantage of the wind, the unerring confidence and accuracy with which he locates his birds, are the things that the judges are constantly weighing



H. A. J. Wilken's "Coveycot Jessica"

in making up their decision, and any sportsman who follows a well-conducted Field Trial for a day or two leaves a much wiser man, and in the field thereafter, he will be far more skillful in the handling of his own dogs and will have learned many things that should be in the curriculum of an accomplished and



Frank Butler with Norwood Johnson's Champion "Griffon"

worthy sportsman.

In the trials this year a number of amateurs competed. Crocker's Ben Sport was handled by his owner who had never seen a Field Trial before, but who quickly picked up the finer points of the game and in the final heat, which he ran with Jay Hall, also an amateur, these two men handled their dogs with a keen, decisive precision that would have done credit to any professional.

A Mr. Wilkens, who owns a beautiful little descendant of the old Field

Trial star, Caesar, was a very unpromising handler in the first series, but he followed the trials through the rest of the day, got a line on the game, and came back two days later and placed his beautiful little setter at the top of the list.

PINEHURST has many things to recommend it as a Field Trial center. To begin with there are sufficient birds and unlimited country, and there is a stimulating snap in the atmosphere of this Carolina pineland country that brings out the best in both men and dogs. It is a land of sunshine and sandy soil which readily absorbs the rains that in some countries made the fields impassable, and there are also the other comforts in the way of splendid hotel accommodations, which have deterred so many men from putting up with discomforts to be found at the places where Field Trials are usually held.

Mr. Tufts, the owner of Pinehurst, is an old Field Trial man and always has a hearty welcome for the man who loves a bird dog or a foxhound. He is also fortunate in having as two all-winter residents Dr. Brown, who is well-known in the Field Trial world and a skillful hand in directing these matters and Jay Hall, another well-known Field Trial enthusiast, keenly interested in bird dogs and the success of the Pinehurst trials.

The senior judge of the trials was Harry Hullman of Terre Haute, Indiana. A quarter of a century ago Mr. Hullman owned the greatest kennel of Field Trial stars that was ever brought together and his name is permanently identified with all that is best in Field Trials. He dropped into Pinehurst quite unannounced, but was immediately pressed into service and handled the stake admirably, bracing

(CONTINUED ON PAGE 255)



FIVE HINTS

If your boots get wet inside take several handfuls of dry pebbles, heat them very hot and put them in the boots. This will dry them quickly.

* * *

A good pocket match box can be made by telescoping empty 12 and 10-gauge shot-gun shells.

* * *

Always carry a little roll of stove-pipe wire and some string. It will come in pretty handy around camp.

* * *

An improvised camp spoon can be made by using an oyster shell attached to a split stick.

* * *

Whenever you are in unfamiliar woods make a distinctive or original mark on certain trees so you will recognize them if you ever have occasion to pass that way again. Ordinary blazes are misleading sometimes.

JACK, Iowa.

A GOOD CAMP GRATE

A VERY simple take-down grate for camp use can be made by using three pieces of iron about fourteen inches long by 1 inch wide to 1/4 inch

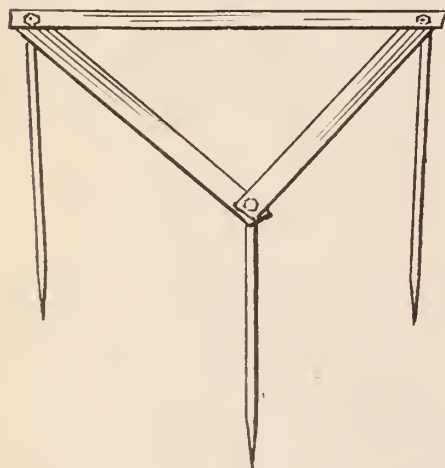


Figure 2

thick and three 1/8-inch iron rods. Bore holes about a quarter of an inch from the ends of the flat pieces of iron. Form them into a triangle and insert the rods, holding them in place with nuts. Figure 1, shows the different parts of the grate before they are assembled and

Figures 2 and 3 the method followed in putting them together. Sharpen the

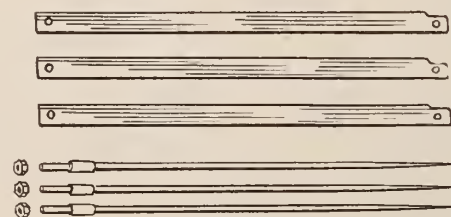


Figure 1

rods so they can be readily pushed into the earth around the fire.

R. R., Maryland.

WE are depending upon the friends and admirers of our old correspondent Nessmuk to make this department worthy of his name. No man knew the woods better than Nessmuk or wrote of them with quainter charm. Many of his practical ideas on camping and "going light" have been adopted by the United States Army; his canoe has been preserved in the Smithsonian Institution; and we hope that all good woodsmen will contribute to this department their Hints and Kinks and trail-tested contrivances.—[EDITORS.]

TO PATCH A BOOT

TO keep a patch on a rubber boot or wader from curling up at the edges is a much easier process than one might imagine. First, carefully clean the surface of the rubber where the patch is required, then attach it as usual and tack the edges down lightly with thin, sharp-pointed tacks. When the patch has set, draw the tacks and fill the holes with rubber adhesive paste or liquid. When this dries cover the entire patch with cement, making sure that you have an unbroken, even coat. Patches attached in this manner usually stick in spite of rough treatment and don't curl up and come off at the first contact with rock or snag, as very often happens with patches that are put on carelessly.

Nessmuk was in the North Woods at all seasons of the year. When the hilarious skeeter thrummed his guitar; when the rapacious black fly thrust his javelin and when the unseen punkie burned his poisoned torch. He didn't risk citronella nor eucalyptus. Tar oil was his "dope" and the writer can testify to its marvelous efficacy. "Three ounces pine tar, two ounces castor oil, one ounce pennyroyal oil, simmer all together over a slow fire and bottle for use."

If every summer camper who may be exposed to one or more of these dreaded pests will read Nessmuk's advice about insect pests he will bless the old man again and again, that is if he will follow the advice which is sound, solid sense.

OSCEOLA.

ONE WAY TO START A FIRE

HERE'S a simple way to start a fire without matches, flint, steel or sticks: Everyone knows how to start paper burning with a magnifying glass, well, that's just the trick, only use a front lense from your field glass. It will make a very strong glass and the brighter the sun the easier it is to start the fire. After your tinder begins to smoke a little, blow on it and it will break into a flame very much sooner. You don't have to keep a big fire going all day in camp so as to have it ready to cook on at suppertime, just keep a smouldering one and you can start it again very easily by fanning a little.

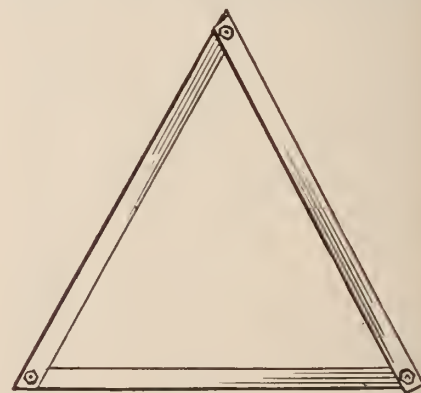


Figure 3

Almost all hunters nowadays carry field glasses and consider them an essential part of their outfit. They are invaluable for searching out and finding game, but it is well to know of another way in which they can be made to serve a useful purpose.

E. C. T.

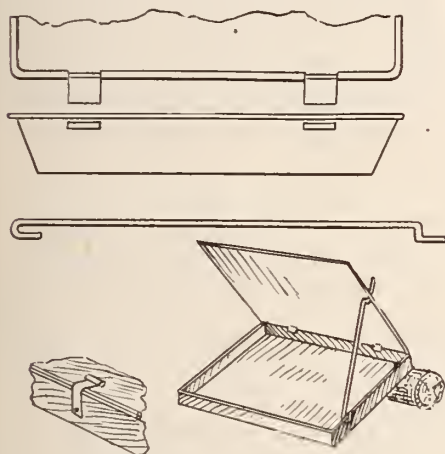
THE BEST FLY DOPE

If your various correspondents want the very best fly dope to really keep the varmints off they have only to refer to the pages of "Woodcraft" to secure it.



A HANDY BAKER

PURCHASE a heavy tin baking pan such as can be obtained in any hardware store. Fashion a cover from a



The steps in construction

piece of sheet tin and fasten it to the pan by means of the simple tongue and slot hinge, as shown in cut. Brace the pan before the fire by means of a log or stake and, adjusting the cover to the proper angle, hold it in place by means of a wire. The pan will come in handy to carry odds and ends of your camping outfit and when fastened shut by a little catch will keep the contents snug and tight.

H. L. R. G., Connecticut.

POCKET MINNOW NET

TAKE a round block of wood, about three inches in diameter and about an inch thick, and bore four holes opposite to each other around the edge. Insert a piece of umbrella rib about twelve inches long in each hole. Make the holes small enough so the ribs will fit tight. Leave the ends of the ribs that have the little eyes in outside. Lay the block and ribs, which will look like the hub of a wheel with four spokes, on a square piece of mosquito netting and sew the four corners of the net to the eyes in the ribs. In the center of the block put a screw-eye and in the center of the net sew a piece of string, leaving the ends of the string about eight inches long. Any straight, stiff stick picked up on the shore will serve for a handle. Make it fast to the net with string through the screw-eye. With a piece of bread as bait tied to the string in the middle of the net it is ready to catch minnows. They will come over the net for the bread and when it is raised up quickly,

the resistance of the water causes it to belly and the minnows cannot get out. When you have finished using it, pull the ribs out of the holes, drop the block in the net and roll it up on the ribs, making it compact to carry.

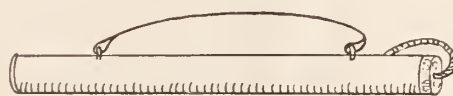
TAKE CARE OF YOUR ROD

EVERY season your fishing rod should be carefully gone over and varnished if you want to keep it in good condition. Clean all the metal parts with rottenstone and sweet oil, but never touch the male ferrules. With a piece of old felt, a little extra fine pumicestone and raw linseed oil rub it down thoroughly, being careful in the wiping not to chafe the silk; wipe off very clean and let it stand for a day or two to get dry. Then take a fine-haired flat brush and give one coat of fine oil finish. Suspend the rod by strings for one or two days and give the second coat, suspending it again for a few days so it will get hard. Now take old felt, raw oil and rottenstone and rub it lightly but thoroughly; wipe off with an old rag and you will have a handsomely finished rod. Water will not affect it. When you stop fishing wipe the rod dry and when you get home or to camp rub it well with raw oil on a rag. Oil the male ferrules with a drop of good gun oil, polish the mountings and put it away in its case.

J. P. H., New Jersey.

A DURABLE ROD CASE

AS the ordinary rod case of leather doesn't always prevent rods from becoming broken while traveling, I devised and made a case for any pet rod by taking a piece of light brass tubing of suitable length about two inches in diameter and soldered a cap of heavy tin for the bottom. A large cork provided a stopper for the other end which I fastened to a little chain and soldered the other end of the chain to the tube so as to prevent it from becoming lost. Bits of brass wire were bent into U shape and soldered at



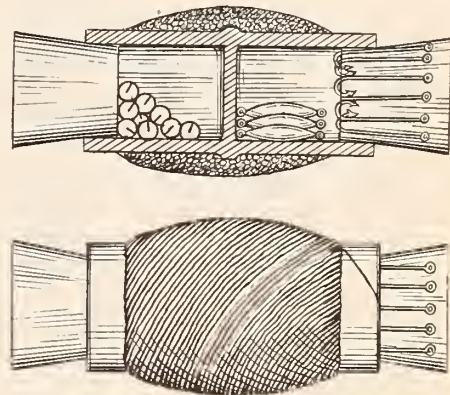
How the rod case looks

proper intervals to the side of the tube so as to form attaching points for the carrying strap. I enameled the tube black and I now have a good looking case and one that is practically unbreakable.

G. G., New Jersey.

A FISHING OUTFIT

TAKE a piece of bamboo about an inch in diameter and cut it so as to form a hollow tube about four inches long.



Sectional view of outfit

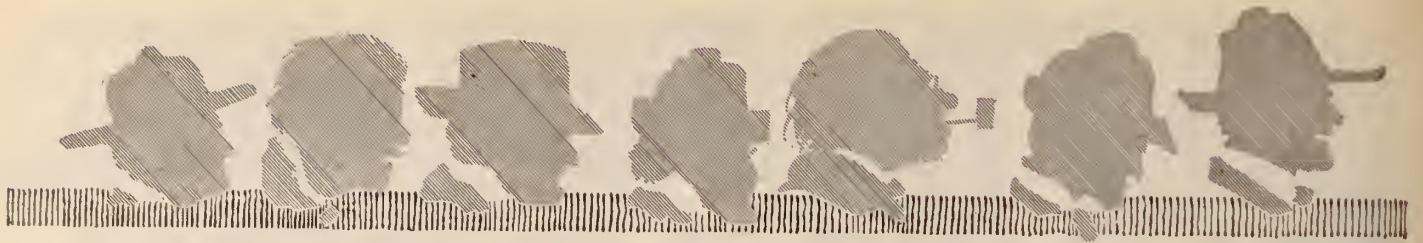
Insert a cork in each end and you will have a receptacle in which you can put shot, sinkers, etc. One of the corks can be used as a float and by empaling hooks on the other orfe, as shown in cut, you will be able to keep them in such a position as to prevent all possibility of their becoming lost or entangled in the lining of your pocket. Wind your fish line around the outside and hold the loose end in place by pushing it in with one of the corks. This will give you a compact fishing outfit and one that you can easily carry in your hunting coat pocket and will come in handy when you happen upon a good fishing place.

W. R. J., Alaska.

TO SKIN AN EEL

PLACE the eel on its back on a board and with thumb and forefinger on each side of its head at gills, press firmly down and cut a very narrow slit across its neck just below the fins with a very sharp knife. Force the knife through backbone, but do not cut through the skin. Raise eel from board and holding head in left hand, place point of knife in slit and cut and rip down the belly through the vent and let the slit stop in the fin. Take out insides and work the knife at severed backbone until the skin is free from flesh for about two inches down from head. Holding the head in left hand, place thumb of right hand back of detached flesh, with blade of knife against the backbone on the belly side and pull the skin off as you would a sock. The skin should not be cut from the head as it provides a handle to hold it by when pulling.

F. A. S.



MORE ABOUT GAME FISH

To the Editor of FOREST AND STREAM:

I'M only a bookshop subscriber to your very fine magazine, and around the 15th of every "inst." eagerly look for it.

In the February issue, numerous interrogations appear, as "What is"—"Definition of"—"Manning of," etc., concerning "game fish."

One says the salmon only, and other equally expert opinions differ.

The word "game," as applied to fish, would require an act of your Congress to decide, and even then the act would err, for the reason I would like to point out.

I am from England, "Merrie England" again, and used to "still fish" in the sea a lot, but, until last year, did not have a rod in my hand for well over forty years. About 25 years ago, I used to "throw out" a hand line in the Red River and could take quite a few of the much maligned cat fish. A few times I have fished in the Assiniboine.

At that time the Red was a fine body of water, with a current of about a mile an hour, the Assiniboine being twice as swift. Sewers emptied into the Red, none into the other. From the Red I could catch "cats" up to 25 lbs., big black backed fellows, but they would "come in" like a log till they got to shallow water. Then a flip of their tails would take them about ten feet, to be hauled back and out. Were they "game?" No, most emphatically No!

Less than a mile across the base of the triangle (the point of river junction being the apex) I would throw in a fairly heavy sinker, and a six pound "cat" would connect. Oh! yes, he'd connect all right, and you'd know it. These fellows were sure of the wildcat persuasion, for they would take that heavy sinker, lift it 15 feet to the top of the water, and fight every foot of the way in. Up here at that time the art of "playing a fish" was unknown, but, as these fish would pull I would give them a few feet of line, and have sometimes been ten to fifteen minutes landing one. I always used a very fine linen line, except for the bottom six feet, which is heavy enough to stand the strain of the swing. To throw out, and to pull in a six pound "game" cat, with a fine line, with bare hands is no joke.

All of which brings me back to the original matter. I claim the Red "cats" are surely not a "game" fish, but the fighting wild "cats" of the Assiniboine are as much a "game" fish as is the lordly salmon or the voracious pike.

Further, the word "game" is one of those abstract words that are absolutely indefinable. Like "sin," "duty," etc., the dictionary can interpret in general terms but for the word "duty," a brakeman has

LETTERS, QUESTIONS AND ANSWERS

one interpretation, a human yellow dog an altogether different one.

Dr. Henshall is right, if a fish is a fighter he is "game." If a quitter—well, he is just a quitter and not "game."

Good luck to FOREST AND STREAM, may they both, with the magazine named after them, outlast our time, and for generations beyond.

J. E. COSTELLO, Manitoba.

WHEN AN EEL IS NOT A SUCKER

To the Editor of FOREST AND STREAM:

I HAVE had considerable fishing experience in the last six years but the most exciting one I can remember happened last spring. The surrounding country where I live does not lack in fishing waters; Napanee River with its various creeks afford much pleasure to the true sportsman. Some people think that fishing with a net is sport. I disagree; give the fish some sort of a chance at least. If anyone wants sport let him take a spear, some sort of a light and wade up Little Creek night hunting black suckers and eels. This creek teems with suckers in the spring; they come in from the bay at night and go out in the daytime.

One night I went down to the creek with a friend of mine to hunt suckers. We each wore hip rubber boots and carried a spear and a good strong carbide lamp. We started wading up the rapids but never saw a fin. "A little early in the night," announced my friend; "come up to the mud bottom, we'll try for eels," and so up to this spot we proceeded. Here's where the fun started. Imagine yourself spearing eels in three feet of water and only one hand to do it with! I can see those eels yet; they were everywhere. I left my trademark on several of them though; they seem to have a disgusting habit of slipping through the tines when they shouldn't!

The water came up higher on our boots all the time and when it was about two inches from the tops the going was pretty slow. I was on one side of the creek and my friend on the other when he yelled "Look out! There's a red fin." As red fin suckers came in this creek once in a while I supposed that he had seen one so I flashed my light toward the center of the stream but saw nothing that indicated the wake of a "big one."

The first thing I knew my friend had something on his spear that looked to me

like a huge black snake. It was not; it was an eel! And talk about eels, that was the biggest one I ever saw or ever expect to see. I can safely say it was five feet long and as big as a man's wrist! But he got away, much to our disappointment; it is a hard job to keep an eel on a spear with only one hand. My friend was so excited he didn't know what to do; whenever I mention that night to him he says, "Holy doodle," and shakes his head. We didn't get an eel or anything else that night except wet feet which is invariably the case. At this particular spot sucker fishing is quite a sport on a good night.

WALTER H. SILLS, Ontario.

To the Editor of FOREST AND STREAM:

THE GREEN HEAD MALLARD

AT a recent meeting of the Stutsman County Sportsman's Club, Jamestown, N. Dak., a discussion came up relative to the Green Head Mallard Duck as to whether or not his head was green at all times during the year. It was maintained by some that the green head was permanent and by others that his head was not green during the moulting period. Will you please inform me relative to this in detail.

J. E. CAMPBELL, N. Dak.

Those who maintain that the green head of the male mallard is permanent through the year are wrong. The green head mallard loses his brilliant plumage for a period in late summer and early fall and more nearly resembles the female. This is not generally understood by gunners. This change of plumage in male ducks during the summer months was first spoken of in the supplement to Montague's Ornithological Dictionary in 1813, the reference being to the pin-tail or sprig-tail (*Dafila acuta*). In the Proceedings of the Philadelphia Academy of Natural Sciences for the last quarter of the year 1899 Mr. Witmer Stone discussed "The Summer Molting Plumage of Certain Ducks" at considerable length.

The matter is treated of with some fullness in Grinnell's American Duck Shooting, pp. 82 to 84, from which we digest some paragraphs.

About 1838 the naturalist Waterton described a summer molt in the male mallard and from time to time other species were found to undergo similar changes. Ridgway, in his Manual of North American Birds, refers to a number of ducks which have a peculiar summer plumage resembling the female. Among these are the mallard, blue-wing and cinnamon teals, the gadwall, widigeon, pintail and scaup. Mr. Stone noted that the change of plumage is chiefly confined to those parts of the bird

which are most highly colored. The change takes place in summer just before the annual molt of the flight feathers, and as soon as the new flight feathers have become strong enough to be used, the dull plumage, as well as the remainder of the old plumage, is lost. In other words, this dull plumage lasts only during the period when the birds are unable to fly through the loss of the quill feathers of their wings. At such a time a dull plumage would render the bird inconspicuous and so protect it from its enemies, and this Mr. Stone believes is the explanation of the curious summer molt.—[EDITORS].

TWO KICKS AND A HOLLER

To the Editor of FOREST AND STREAM: THIS is two kicks and a holler which you won't publish from one who has read and subscribed to the old magazine for twenty years. Kick one—Why is FOREST AND STREAM on sale here five or six days before I who subscribe for it receive my copy?

Kick two—Some time ago I submitted an article on Striped Bass Fishing at Montauk, said article being without any literary merit whatever, but a truthful account of conditions under which we fish there. If you don't want this effusion, and I don't blame you if you don't, please return it. Last year was the greatest ever for striped bass at Montauk, four rods averaging twenty-four fish per day but most of the fish ran under ten pounds. Now I know our friend Hulit is a bait fisherman and wedded to the method as followed on the Jersey coast but he ought to let the readers of our magazine know of the fine fishing near town. This Summer the State begins the construction of a cement road from Bridgehampton to the Point so that any fisherman who owns a "Lizzie" can run right down to the fishing grounds and no railroad fare.

The Holler—Shortly I leave on my fourteenth trip to the West coast of Florida. Two years ago I had the pleasure of attending the King party whom we found lost at the head of Little Shark River near Harney Pool. I have enjoyed reading Larned's descriptions of that country. Except for rattlesnakes there is no danger there for the man who minds his own business and keeps his mouth shut. The stone over the grave of that Audubon Society warden on Cape Sable is a very pretty piece of brown stone. I visited it last year. But what do you expect. He butted in on the local plume hunting industry. If Larned wants a story tell him to get from Geo. Storter of Allens River the story of Watson who lived on Lostman's River and made a business of killing for the pure love of the thing. I visited the stand from which he shot his victims and found the skeleton of the old woman he killed and which one of my friends helped to bury. Watson died facing a bunch of men at Chockoloskee. They buried him on Rabbit Key, waking Storter up in the middle of the night to pronounce him officially dead. This was easy. He had twenty-one bullets in him.

This year we are going to try to catch sailfish outside Knights Key by the kite method as done at Avalon. It seems easy according to the letter and diagrams just received from the secretary of the club but I "hae me doubts." Don't suppose you would care to hear how it works as my articles are merely stories of facts and have no "literary merit."

HENRY H. SHEPARD.

PHILBRICK GILE

To the Editor of FOREST AND STREAM:

NO one could have gone into the Rangeley region of Maine without having known Philbrick Gile either through personal acquaintance or



Philbrick Gile

by reputation. The news of his death, which occurred the latter part of February, will be regretted by all who knew him.

He was one of the pioneers in this section, in fact, his name is properly associated with the old buckboard road from Rangeley to Kennebago via Loon Lake, as he was one of the small group of men who blazed through the original trail, which later became a buckboard road, and up to a few years ago was the only way into Kennebago from Rangeley. During his early life he was engaged in trapping and work incidental to the opening up of this region.

With the development of York's Camp at Loon Lake and Ed. Grant's at Kennebago, his services as a guide were eagerly sought by sportsmen. In addition to being a most practical woodsman, he was a thorough student and lover of nature. One was always sure of entertainment with Philbrick, his many and varied experiences provided a

foundation for many an interesting story.

It was the writer's privilege to have known him, not only as a guide, but as a friend and companion. I saw him last in October, in his comfortable home wrought from the forest by his own effort and thrift.

His death thins the ranks of our sturdy New England type of men, who by their life of labor and resistance give us a heritage of the best American citizenship.

CLINTON V. DEAN, Rhode Island.

WHO WANTS TO HUNT IN MEXICO

To the Editor of FOREST AND STREAM:

I AM planning a hunting and trapping expedition to start from this place about the first of next October to be out some eight or nine months. I am going into the Sierra Madres of northwestern Chihuahua and expect to explore and hunt in a region that is virgin forest and practically unknown to the outside world. All of the game and fur bearing animals belonging to this part of the world are in great abundance, streams are numerous and alive with game fish, in fact it is a hunter's paradise.

My object in writing this to you, is to ask you to help me to find a man to join me. I want a partner who has the ability to write vivid descriptions of what he will see and the game we will kill, that he can get published in some sporting magazine to help make the trip a profitable one. If I can find the right man he will be able to collect an abundance of matter that will be of interest to all readers of such publications or that I think will find sale, published in book form. I spent one winter hunting and trapping in this district without this feature and made a good profit, and I have made numerous short excursions always with success.

I have always used Winchester arms in my hunting expeditions. For deer and bear the 30 Army type is the gun I like best. When I find a grizzly I am not afraid to tackle him with this gun, and it is positive suicide to tackle one of these brutes if you haven't got a safe gun.

When describing any interesting bags of game, we will naturally mention the kind and size of gun used and I think that a hunter's story is incomplete if he doesn't tell what he can do with his favorite gun. The man I am looking for must be healthy and able to bear some hardships and above all be a lover of outdoor life and of the sport of hunting, or his narratives will not be good. I will expect him to bear an equal portion of the expense and share the same in any profit, with myself and probably another person who will go with me. The trip will not be without some element of danger which, however, will make it the more interesting. I will expect this man to bring photographing outfit and be able to take pictures for illustrating purposes. I will answer any questions to any person interested truthfully and frankly, and I can furnish ample proof that I am responsible and will treat fairly with my partner.

LEON A. CARRUTH,
Pearson, Chihuahua, Mexico.

HINTS ON FISHING

To the Editor of FOREST AND STREAM:

I HAVE been a reader of the good old FOREST AND STREAM for a number of years and sure do enjoy reading the fishing notes that appear in it each month. In the January number I read M. S. B.'s article who asked for some of the other fishermen to give their experience in fishing. Fishing is my favorite sport and I spend most of my spare time on the lakes or streams. Trout, black bass and pike are my favorite fish, but the bass are the boys I like to fish for and I most always get my share of them. I am no fish hog as fifteen is the limit of one day's catch and I have never taken over that number in one day, not because I couldn't catch more but fifteen bass is enough for any person in one day's catch. Our lakes in Minnesota have a good supply of fish of most every variety. I am a strong believer in shore fishing and do most of my fishing from the shore. I use every kind of bait I can get hold of. Flies, wabblers and spinners of different makes, live bait such as frogs, minnows, soft shell crabs and crickets, and when bass are not taking live bait or flies, or spinners, I try dandelion blossoms and milk weed blossoms. I have caught a nice string of bass with these two blossoms but these I use in the heat of the day when the fish are jumping, as they are light and hard to cast but put on a couple of split buck shot and try it the next time you go fishing and find the bass are jumping and will not take any other bait you may offer and see for your self. In cleaning my catches I always notice what they have been feeding on and in that way it has helped me a great deal in giving them what they will take. Last season I caught a dozen or more bass that would weigh $4\frac{1}{2}$ lbs. and better the opening of the season. I caught one black bass that weighed $7\frac{3}{4}$ lbs., 24 inches in length and 19 inches in girth at Dean's Lake, Minn., 35 miles northwest of Minneapolis on a No. 2 Shannon Coaxer, which I think is a good surface bait. But when my friend asked me for a mess of fish and I am fish hungry myself I most always use frogs. Will write again if any one would like to read my experience in bass fishing.

W. A. MORTON, Minneapolis, Minn.

FROM GERMAN SOIL

To the Editor of FOREST AND STREAM:

YOUR welcome letter of the 15th of Nov. was received with pleasure. I am glad to hear that my letter with the eleven Francs in was received on Nov. 11th because that was a day that the whole world enjoyed. I have received two copies of the good old FOREST AND STREAM since I received your letter, and I have had great pleasure in reading them and I hope that I will receive my April copy soon. I know of nothing else in the line of news just now, except that we are only about 50 ft. from the Rhine River now, with only a railroad and street separating. The Rhine is about as wide as the Ohio and as deep

as the Mississippi Rivers. I suppose that we will stay here for the duration of our "Nacht am Rhine." There are many wild ducks on the river and many rabbits and deer in the hills and forests around here, which only makes me homesick for we are not allowed to hunt here. As this is all the news I know I will close with a promise to pay you a visit when we get back to the good old U. S. A.

CORP. JOSEPH A. BLETNER,
Army of Occupation, Germany.

A BOOK PLATE

To the Editor of FOREST AND STREAM:

AM taking the liberty of enclosing herewith print of a book plate which I had made, using as the lower panel two cuts from one of your old publications; feeling that you might perhaps be interested in seeing some of your old work reproduced along different lines



An Outdoor Man's Book Plate

and that the book plate may perhaps help you or some of your friends in designing one for yourselves, I remain,
W. P. PATTERSON, Virginia.

A FINE NIGHT SPOILED

To the Editor of FOREST AND STREAM:

ONE night in October, 1917, we were going to try out a pup we had been training all that summer and of which we expected a fine hunting dog; a 'coon dog was what we wanted.

We invited four friends out from Clarksville to go with us and out they came with a "green one" who promised us great fun that night, so we went down to Dry creek, which is the best 'coon ground in the neighborhood and turned our dog loose near the creek. At first "Sport" (the dog) didn't catch on and for the first half hour we did most of the hunting, but finally found 'coon tracks in the mud by the creek where he had been hunting frogs for his supper, so we called the dog and let him get a good

whiff and off he went like a wild dog down by the creek, sometimes in the water and sometimes on the gravel. In his haste he lost the track but picked it up again a little ways down the creek. He did better this time than before, and trailed old Mr. 'Coon down the creek a little farther and then off towards the swamp about a mile away, yelling all the time as if he was killing the 'coon or the 'coon was killing him, but we knew as long as all that noise was kept up our dog was very much alive. Finally he treed him in an old sink hole which was about ten feet deep and very hard to get out of because you had to pull yourself up by small bushes growing along the sides. As we had taken a 'possum from this hole about a week before there was no hesitation on our part about going down, so down we went, and just as we went down the show started. Hardly had we touched the ground when the dog brought out a skunk and a lively tustle followed in which we were all christened night hunters for the simple reason that we couldn't get out fast enough. In the scramble to get out we lost the only lantern we had and no one would go back for it, so we started discarding all the clothes we could spare.

Somehow or other our dog had lost the 'coon track and had taken the skunk's which ended what promised to be a fine night.

A. J. ALLENSWORTH, Mich.

JACK RABBITS FOR HUNTING

To the Editor of
FOREST AND STREAM:

THE question of Jack Rabbits and Belgian hares for country stocking purposes has been called to my attention. The local raisers of Belgian hares advise me that when these rabbits are turned loose in the country they invariably die. Such being the case, it would be useless to waste money stocking these rabbits for hunting purposes. Can you advise me of any species of large rabbits that will propagate when turned out in the country and increase in numbers for sporting purposes?

O. M. LA RUE, Flemington, N. J.

DEFINITION OF SPORTSMAN

To the Editor of FOREST AND STREAM:

IN the March number there was an article defining "sportsman" as applied in this country.

I think any person who is a lover of nature and her children. One who enjoys hunting, fishing etc., for the pleasure of matching his skill against their instincts and natural cunning, and not for the sake of killing. One who insists on fair play, respects our game laws and helps protect our friends of the forests and streams is entitled to the term "sportsman."

If the killing of a swan, stag, eagle, seal and salmon was the qualification in the past in Scotland, anyone could boast the title if he had the price, while many a true sportsman would be left out.

C. S. PAUL, Iowa.

UNCLE SAM FISHING CONTEST

To the Editor of FOREST AND STREAM:

LAST August three disciples of Ike Walton got into a boat on a little pond, situated in Plymouth County, Mass., about fifty miles from Boston.

After catching small perch and roach for bait we anchored in 15 feet of water for still fishing. I can visualize turned up noses, but when flycasting is impossible owing to prevailing conditions and there are too many weeds for bait casting, is it not good to anchor, light your pipe and indulge in a contemplation of the wonders of nature, returning to the days when a twig, a string and a one-cent-a-dozen hook brought pleasure that can never be forgotten?

At one o'clock our sole results were a few perch and many pouts that had been returned to their habitat. Lunch over, at two-thirty, we again put forth. Having live shrimp I thought I would try them instead of perch and then the sport started.

Almost immediately after my first cast I received a strike and was so surprised that Mr. Fish got safely away. Of course I had to endure a nagging from my companions that I afterwards realized was classical. But when I encored the performance on the next cast the personal remarks got under my hide and though I hate to admit, the fish began to steal my shrimp as fast as I could put them on the hook. Having nothing but dead ones left I put on a bunch large enough to make any bass hungry, but when I landed a four pounder I thought I was due to be thrown overboard. I had a feeling then that it was my day and a prize in the FOREST AND STREAM Fishing Contest" seemed to be already in my vest pocket.

Baiting with a live roach and casting I was rewarded by a strike that sent a thrill through every muscle.

Letting him mouth the bait he took a run of twenty five or thirty yards and when he stopped I struck and then the fun began. When he felt the hook, out of the water came the largest and most angry bass I have ever had on a line. With a 4-oz. flyrod and a hundred feet of line out I knew I had a fight on. During this bass's life he had learned every wiley trick famous to the small mouth.

After several attempts to get rid of the hook by leaving the water and playing an acrobat, he decided that home offered a better haven and home he went to sulk, occasionally shaking his head like a bull dog on a tramp's nethermost part which has been made famous by cartoons. After twenty-five minutes hard fight I gave him the butt and persuaded (incidentally a hook in the tender part of one's mouth must be some persuader) him to come up. When he saw the boat within a few feet his waning strength rallied and he made one last futile attempt for freedom, but the odds were against him and the net was slipped under his bronze body and the game warrior lifted into the boat, his courage willing to continue the fight but his strength all gone.

His gameness made me wish to put

him back but I compromised and had him mounted and every time I look at him I feel full of respect for his gameness and look forward to the time when I can make another trip and get a companion to put beside him. He weighed five pounds, six ounces.

J. G. HOUSTON, Mass.

SOMEONE ANSWER THIS

To the Editor of FOREST AND STREAM:

Can I take a boat, drawing about 28 to 30 inches, and go in and through the various heads or channels from Hicks Beach, Far Rockaway to Great South Bay? I have tried to get charts but am told there are none published. If you cannot answer the question, perhaps I can get it from one of the readers of FOREST AND STREAM if you will publish this in the column of questions.

H. L. ALLEN, Prince Bay, N. Y.



Flying Squirrel Leaving Nest

THE FLYING SQUIRREL

To the Editor of FOREST AND STREAM:

I AM enclosing a picture of a flying squirrel caught by the camera in the act of leaving his nest which might be of interest to the readers of your excellent journal.

J. B. PARDOE, New Jersey.

HELP FEED THE QUAIL

To the Editor of FOREST AND STREAM:

I HEARTILY endorse Charles Sherwood regarding a bounty on all kinds of vermin. I know it would be a great help in increasing the birds, but I wish to add a little more. The grouse covers are fast fading away, that is their feeding trees, namely black birch, sweet acorn, spruce and the chestnut. Before the chestnut blight started the grouse were very plentiful. I have run onto a great number of grouse that were down and out from eating the blighted chestnuts, effecting them so that their livers were so diseased you could pull them apart

very easily. Owing to their poor condition they were easy prey for vermin. As for the quail, some 30 years ago most of our fields were enclosed by the old Kentucky rail fences. In plowing these fields the farmer never got any nearer than three feet on either side. This allowed the hazel brush and weeds to grow up. When the winds and snows started, this fence acted as a shield so the snow drifted on the north, leaving the south side with a nice sheltered canopy for a sun parlor and feeding ground for the quail. Today the wire fences have taken the place of those old rail fences and the quail have some hard times. How many of us on arising in the morning and finding the ground covered with snow and a crust of sleet, ever put on the old rig, take the dog, place a bag of feed on our backs and sail forth to feed those little fellows, that we think so much about in the fall when the going is good and we want to show our friends the good work of our dogs? You can pass laws, and then more laws, but you will never save the quail unless you help fill their crops. Come now, lets all be good sports and cast away our selfishness. If they are good enough to hunt, lets go the limit and help them through the winters. Its a poor sport who won't go afield with a bag of grain and forget the gun for a while.

F. W. WACKFORD, Connecticut.

THE COOING FISH

To the Editor of FOREST AND STREAM:

I JUST read an article in the March number of FOREST AND STREAM of what seemed to be a strange experience of W. R. Wood, of Canada about a fish taken at Dickie's Lake in Hastings County, Ontario making a strange moaning sound somewhat like the cooing of a dove. I found the same kind of a fish in a small river in southern Alabama. The fish is known there as the Croaker and ranges in size from 1 to 2 pounds. It is not good for food.

J. W. HEMBREE, Princeton, Ind.

To the Editor of FOREST AND STREAM:

MR. W. R. WOOD'S experience with cooing lake trout encourages me to cast away my prudent silence and tell of a somewhat similar experience. In August, 1917, when up White Brook, near Bethel, Me., I hooked an eight-inch brook trout which came off the hook as soon as I had landed him. He went flopping down a thirty foot rock slide with a pool at the bottom. I was in close pursuit but it looked as if he would get away when he hit a bump and I grabbed him. To my astonishment the trout let out a harsh little squeally squeak. I have not heard anyone speak of vocal trout till I read Mr. Wood's letter in your March number. Maybe no one dared to. If so, I wish they would speak up.

GEORGE S. HASTINGS, Washington, D. C.

We received a letter recently signed A. V. Loving. If that gentleman will kindly send us his address we will be very glad to answer his letter.—[EDITORS.]

LIKE OLD TIMES

HOW good it will seem to get back once more to summer camp and lake and river, so sadly neglected while the boys were away. It will be like old times to glide swiftly and smoothly over the water, with all cares left behind.



A Koban motor frees you from the labor of rowing—and as to speed **THE KOBAN WILL RUN AWAY FROM ANY OTHER ROW-BOAT MOTOR.** Easily attached to any row-boat—in a few minutes.

THE GREAT 2-CYLINDER KOBAN ROWBOAT MOTOR

The 2-cylinder opposed construction absolutely removes the continuous vibration which makes riding unpleasant, opens a new and ruin rowboats. Special tilting device for shallow water and bea.hing.

KOBAN MFG. CO.
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Does Not Shake the Boat

Write for catalog and full information.

Dealers and agents wanted.

We also make an Inboard Engine for small boats and canoes. Circular 80 tells all about it.

AT CRANBERRY LAKE

NEXT TO CATCHING FISH ONESELF COMES THE PLEASURE OF WATCHING A MASTERFUL EXPONENT OF THE ART

By C. P. MORRIS



THE writer is indebted to FOREST AND STREAM for a most enjoyable outing in the Adirondacks, for which opportunity is here taken to make grateful acknowledgment. Perusing its always interesting pages, with the call of the wild beckoning, and vacation days at hand,

my eye fell upon an advertisement, couched in most attractive style, of a quiet, restful inn in the heart of the Adirondacks, in whose neighborhood could be found the greatest trout fishing in American waters.

An ardent patron of this kind of outdoor sports since my early boyhood days, when prime tackle consisted of sapling rod, white cord and bent pin, I determined to let my own lad of eleven years feel the thrill of catching his first trout, as I had many years before, which joyous experience is still ineffably impressed upon my memory; and I must even confess that it was to feel that fascinating thrill once more myself, after a long inactive period, that I determined to visit Cranberry Lake.

It is fair to say that perhaps half the joy of every fishing trip is in the anticipation, for the realization often holds setbacks and disappointments, in which connection my own case, as to anticipation, was no exception to the rule, and I lived in a paradise of genuine joy in the selection of equipment for the trip. The springy rod and click reel, the invisible leaders, the Hackles, Grizzly Kings, Golden Spinners, Silver Doctors, Montreals and all the other lures to tempt the wary denizens of the forest streams and ponds.

All prepared, we arrived at Childwold station on the Adirondack and Montreal Division of the New York Central one misty morning very early.

Thence to Conifer, a lumber station about a mile down the Grasse River Railroad.

We had a very pretty ride along the Grasse River, really a good sized brook, the mere sight of which with its clear, cool, tumbling waters, breaking in restless rifts into quiet, deep, shady pools over rock strewn terraces, heightened my eager desire to get at the sport. One felt like holding up the train long enough to make a cast here and there in "likely holes" for there could be no doubt as to the trout being there. But we had to restrain impetuosity and bide our time until we got our boots on at least, and they were in the bottom of the trunk.

Arriving at Cranberry Lake, a magnificent sight presented itself to view. A great stretch of the northern wing of the lake, reflecting an azure sky,

nestling among the deep chrome green hills, fringed in the distance with blue mountain ridges, lay before us, with here and there a tiny island of perfect symmetry dotting the expanse of water.

And hardly more than a stone's throw from the wharf at the village of Cranberry, the waters of the lake tumble over a dam to form the source of the lower Oswegatchie River, coursing its irregular, turbulent but beautiful way through valley and glen to the St. Lawrence.

A number of beautiful streams, full of small trout, flow into the lake, but fishing therein is prohibited by the Game Conservation Commission. These streams are annually stocked with trout from the State hatcheries, where they remain to grow large enough to take care of themselves, and then pass on to deeper waters. During the month of August the large lake trout, of which there is an abundance, move up into the spring holes where the brooks come into the lake, and readily take the fly at these places. Here the water is cooler and more food, washed down by the streams, is available for them. That arm of the lake known as "Brandy Brook" is a beautiful reach, probably a mile long, gradually tapering from 400 yards at its outermost point to five yards where the brook comes in. Beneath old water soaked logs along the wooded shores, the speckled beauties hide during the day, but may be seen "breaking" here and there, the full length of the reach at feeding time, early in the morning or late in the evening.

I sat in a boat in the center of this reach one fine evening along toward dusk casting alternately right and left, but half facing the right shore, expecting a strike from that quarter. Much to my astonishment, at the very moment of "picking up" to make my right hand cast I heard a splash behind me, and seemingly my line was fast in a snag. Instantly wheeling around I saw my line whizzing up stream like a flash, and a moment later I landed a two pound buck-trout of rare beauty. Seven more, varying from one-half to one and a half pounds taken in quick succession gave me some sport long to be remembered.

Next to catching fish myself, I took real pleasure in watching Rudy Hayes, a native guide, and masterful exponent of the art of casting. As he came up the reach in his canoe, the only sound from the tiny craft was the swishing of the rod, which sounded not unlike the call of the whip-poor-will. So deftly did he cast that his flies would land on the water like thistle down, without the semblance of a splash, beside an old stump here and a sunken log there, at least seventy-five or eighty feet ahead of him, while his line continually formed

(CONTINUED ON PAGE 234)

Comfort (SANITARY) camp pillow

SLEEP ON AIR OVER HERE AND OVER THERE

COMFORT CAMP PILLOWS
are so cool and yielding that the most restful, beneficial sleep is assured. These pillows have removable wash covers and are **SANITARY—VERMIN AND WATERPROOF.** Will last for years, and when deflated can be carried in your pocket. The only practical pillow for all uses. **Three Sizes: 11 x 16—\$2.25, 16 x 21—\$2.75, 17 x 26—\$3.50.** Postpaid anywhere in U. S. A. Satisfaction is guaranteed or money refunded. Catalog Free.

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THE SPORTSMAN BUYER

WHAT HE EXPECTS FROM THE MAN WHO SELLS HIM HIS EQUIPMENT FOR THE WOODS AND STREAMS

By EDWARD RUSSELL WILBUR

A WELL KNOWN Banker in the city of New York is an ardent fisherman; every hour that he can spare from his busy life finds him on some one of his favorite streams, or with heavier tackle in search of the game fishes of the sea.

With him it is not all of fishing, to fish. His evenings he spends arranging and inspecting his splendid collection of trout and salmon flies and in the varnishing and care of his many rods and reels.

A friend, as enthusiastic and a frequent companion on most of his outings, came to him one day in mid-winter, when fishing was but an anticipation, and said, "Ned, I've made a find, I've found a man who can sell fishing tackle and throw in a fishing trip with every rod he sells." So the banker and his friend forswore the matinee and the club room for the fishing tackle department of a well known sporting-goods store, where a salesman sells, entertains and instructs them, and satisfies that longing for the stream and sea during the months of close season.

Did you ever happen to meet such a man? Have you ever visited a store where the very air stirred with a shifting April breeze; where you could believe the singing reel carried a line with a nice trout on the fly?

Did you ever see a salesman lay out a line on the marble floor as if it were a dark pool, where a break and a flash of gold and silver brought back many happy days?

There are such, and yet again there are cold spaces of shelves and shining cases where the flies are feathers and the rods are wood and glue, and the salesman who looks on only an automaton who parades his wares simply as merchandise and his services as condescension.

A darky once convicted of murder was on his way to be executed; as he entered the death chamber, his eyes fell on the gruesome chair and the silent executioner in the dim light. Turning to the attendant preacher he said, "You all sho' am going to teach this nigger a lesson."

Many a sad lesson has been taught the prospective buyer who puts himself in the hands of a salesman who thinks success lies along the lines of a "hold up," so far as possible, when an amateur comes along. "Yes, sir! I know just what you want," he says and then he gives you a rod for this, and a rod for that, and a spare rod if both the others break down, about six dozen flies, they are so pretty in assorted colors, a bait pail, and a creel holding about 20 lbs., and another small one, nice for lunch and a few fish. "Better take along a couple of worm boxes, and a hatchet to kill worms and clear away the brush," and so he rambles on. "How long will you be away? About

three days, that's fine, a rod for each day and can't I sell you a trunk for your reels and fishhooks!" My, but that salesman sure did teach him a lesson.

FOREST AND STREAM believes it to be well within the province of a sportsman's publication to better conditions in every way possible for sportsmen, and this angle of service and salesmanship is one that can be remedied.

A FIRST class sporting-goods store has always stood in a community as a link between the outdoors and the busy man; he expects atmosphere, not the air of the sordid department store and its bargain sales. He feels it desecration to bargain sale his beloved rods and tackle.

He expects the store to stand as a sort of temple to the shrine of Nimrod and Isaac Walton, where the blazed trail of the pioneers crosses the busy boulevard, and where in a professional capacity the sporting goods salesman, acts as a confessor and friend.

With this issue of FOREST AND STREAM comes the opening of the brook trout season. All over the land there will be a going over of tackle and a replenishing or the purchasing of a complete outfit. The man selling fishing tackle will have much to do toward making your initial outing a success.

You will enjoy going over with him the finer points of a new rod, one that, light of weight, will carry out the line and lay the flies deftly under the bank where a nice trout is waiting.

You will take up the question of flies with him, not for an assortment of colors but in relation to the particular merits of the wet and dry flies. Every time that salesman unwinds the line on the reel he shows you, it sings of the blue sky, the pussy-willows and the blood-root blossoms.

FOREST AND STREAM has in course of preparation a booklet for free distribution among sporting goods salesmen, "The A B C of Sporting Goods Salesmanship." America's leading sporting goods retailers and their expert salesmen have written what the buyer has a right to expect, and FOREST AND STREAM believes this little help will go far toward bringing the salesman and the sportsman into closer contact with one another.

THE service the sportsman has a right to expect, must be expert service. He has a right to expect correct answers as to how to make effective leader knots; how to fasten the line; how to splice and in a measure repair a broken rod.

He expects to get an enthusiastic response to his appreciation of the rod he is handling, a cold unsmiling salesman would kill the music in a rippling stream, and make a little 2 oz. rod feel

(CONTINUED ON PAGE 234)



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You haven't forgotten how. Prepare for reconstruction by reconstructing yourself. But be sure of your equipment. We make tents, camp furniture and camp equipment that are right. Send for our catalog 619. It's free.

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TRAPSHOOTING

will soon be in full blast and greater than ever. The soldier knows. He "loves" a gun. The call of the big outdoors, the call of the traps, rings like music in his ears.

Gun clubs in almost every city of this country will be the headquarters for this war's veterans.

Better improve your own skill now. Be ready to compete at the traps with the man who has worn the khaki.

Just-out-of-the-service-men and men in every walk of life keep up your shooting. If there is no gun club in your town, start one. We'll tell you how: Write

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makes all this possible. Built the same as the finest refrigerator, it keeps food cool 36 hours on one filling of ice.

The Hawkeye Picnic Refrigerator is very durable and finely constructed and will give perfect satisfaction.

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SHOT GUN ACCURACY

DOUBLE BARRELS DO NOT SHOOT TRUE
TO THE LINE OF AIM ALONG THE RIB

By L. MITCHELL-HENRY

THE importance of correct gun fitting is now thoroughly established and most sportsmen, especially in England have their gunstocks fitted or altered to the measurements determined on by the expert of a shooting school.

I have personally paid many visits to many of these schools of instruction in England and have always come away with the feeling that I would never "miss" again, which feeling was cruelly crushed when put to the real test. I had often noticed I was better at birds flying to the right than to the left with one gun and often the reverse with another gun of exactly the same dimensions of stock, weight of gun, amount of choke, etc. I then proceeded to try to find a reason for this and have satisfied myself as to the cause, which briefly is, that the barrels of shot guns do not shoot true with the line of aim along the rib, but the charge crosses the line of aim, the right barrel shooting to the left and the left to the right owing to the "tubes" as they are called in the trade, being laid together wider at the breech than at the muzzle, in other words, they converge. For the purpose of these experiments I used a pigeon gun of extreme choke.

I have been assured by the first barrel borer in London that shot gun barrels are always straight. The breeches and muzzles are then laid together, a slight flat being filed on the inside of each muzzle, the barrels are then laid to converge, and are packed between and soldered together. It stands, therefore, to reason that the shot charges must cross at some distance from the muzzle, and that taking a line down the rib through the foresight to the object, there can only be one spot at which the centre of both charges will meet, after which the line of aim.

Using a French invention of a tube about 9 inches long which fits the barrels of a 12-bore very exactly and shoots the .22 rifle cartridge, I found the bullets "centred" at about 3 yards from the muzzles, and at 15 yards, the right barrel shot 4 inches to the left of the centre of the bull's eye, and the left shot the same distance to the right.

Carefully trying the left with 1 1/4-ounces of No. 6 shot at 40 yards, I found the centre of the charge hit over 2 feet to the right of the mark aligned upon, this being so, it is easy to understand how an object going straight away is missed at 40 yards or over. I had the barrels of this gun taken apart, and wedges of different sizes put between them. At first I got the centres at the breech and muzzles the same distance apart with the result that the .22 bullets shot 1 1/2 inches at 25 yards to the sides of the bull's eye, but each barrel kept to its own side, namely, the right shot 1 1/2 inches to the right and the left 1 1/2

inches to the left of the bull's eye. I gradually reduced the wedges till I got both barrels to the centre at 40 yards, this being accomplished by separating the barrels about 1/4 of an inch at the muzzles. The barrels of the gun in question have been so much forced apart and pulled about that I cannot be sure that the tubes are any longer straight, but as they are at present, they "centre" at 40 yards.

I am, of course, aware that the tubes can be made to steer the shot in any direction. By pinching them together a few inches from the chambers, they can be made to throw the charge outward to counteract the crossing. By wedging them apart in the middle, the charges of shot would cross more than ever. In either of those cases, the barrels would not be straight, but I am going on the assurance that the tubes always are straight, and are laid to converge.

If, on the other hand, the barrels were laid with the centres of the bores at the muzzles the same distance apart as the centres at the breech, in other words, if the barrels were laid parallel, then the line of aim along the rib would only cause an error of the distance from the foresight to the centre of the bore. This, however, would be constant, and the centre of the charge at all distances would only be say 3/4 of an inch to the right or left of the object aimed at, according to which barrel was fired. This would mean that the object would be practically in the centre of the charge, whereas with this particular gun of mine, it was quite impossible, before alteration, to hit an object going straight away, with the left barrel, if the gun was held straight on it at 40 yards or over. I have tried several guns with the same result, and in one case I convinced a very well-known maker who makes a specialty of Pigeon guns that a gun of his shot straight with the left at 30 yards—i. e., that the left barrel was laid parallel with the rib, but the right shot considerably to the left.

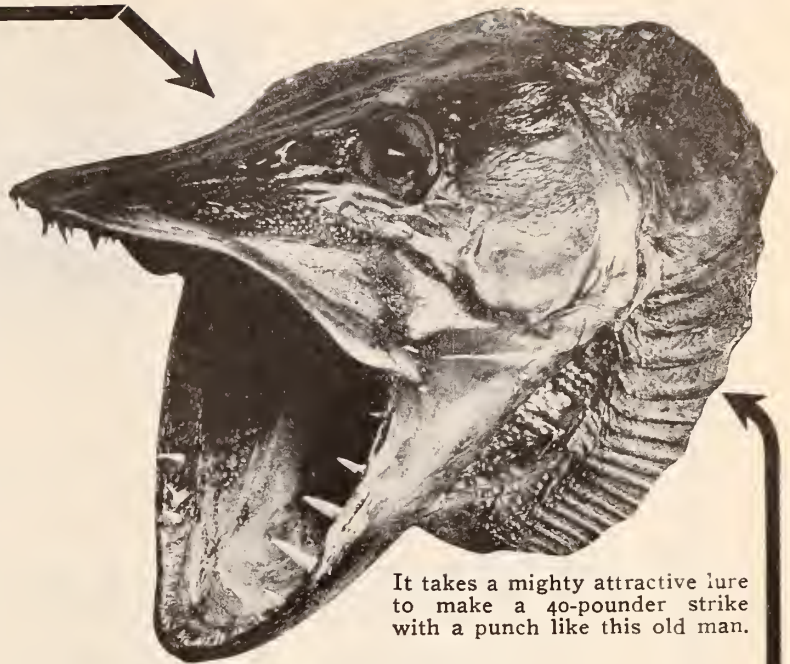
With the gun just referred to, the stock would have been "cast off" until the charge was centered on the object aimed at, in other words, the error of the alignment of the barrel would have been corrected by alteration to the stock, and once that was right, the left barrel would have been considered as equally perfect, but the shooter would shoot to the right with this barrel.

I think this also accounts for the fact, above referred to—viz., that often when a stock is copied exactly from another gun, the gun is found not to be a success in the field.

These experiments incline me to see the advantage in the "Under and Over" system, as the under barrel could be made to shoot high for the second shot.

Doubtless there is nothing new in all this, but I would be glad to know of the experience of others.

40-Pound Musky Busts His Teeth on a PFLUEGER "LOWE-STAR" Spoon —



It takes a mighty attractive lure to make a 40-pounder strike with a punch like this old man.

Many fishing authorities say the musky loses his teeth each year. Dixie Carroll, the well known angling author, says: "From many seasons' study of the musky of Wisconsin and Minnesota waters, I find that, as a rule, the musky loses every other tooth of the front row of dagger pointed teeth during the hot days of August." This husky forty-pounder never waited until August—he could not resist the flashing, twirling invitation of the Pflueger "Lowe-Star" Spoon—he struck it with the driving, dashing strike that makes the heart of the fisherman beat like blazes. And he sure wanted that spoon, hitting with force enough to break his teeth and bend the Lowe-Star No. 1-0 nearly double. Some lure, fellow, to make a musky hit it a crack like that.

"Lowe-Star" Spoons Make 'Em Fightin' Mad

There is a Pflueger Lowe-Star Spoon for every kind of fighting game fish—there never was another spoon that fairly makes 'em crazy to strike. The peculiar twirl and flash of the silver, gold and red of the Lowe-Star is a fighting challenge all game fish accept in any waters under any weather conditions—it is just like waving a red flag in front of a bull. If you wish to enjoy the real thrills of playing the scrappers of the game fish family—having them strike because they are fighting mad and not just filling the stomach—don't go fishing without a selection of Pflueger "Lowe-Star" Spoons. Equally as attractive for casting or trolling—great for bass, pike, pickerel and musky—they coax the worth-while fight out of the old "he-fish" of the tribe. It's the something different movement and flash that wakes them up.

Every time you say, "Give me Pflueger's Bull-dog Brand Tackle" to your dealer you take no chances

You get the best that skill and experience can put into tackle. Every piece of fishing tackle made by Pfluegers is of the highest quality materials, perfect in workmanship and passes a rigid test before leaving the factory. It must be "just right" before the Pflueger Guarantee "without time limit" is placed upon it for your tackle protection.

IF YOUR DEALER happens to be out of stock on Pflueger "Lowe-Star" Spoons or any Pflueger "Bull-Dog" Brand tackle that you want, send direct to us. There is nothing "just as good" that can take the place of any Pflueger tackle. For your fishin's sake get the best—that means Pflueger tackle, made by the largest tackle manufacturers in the country. Tackle that has stood the test of time—fifty-five years making tackle that is guaranteed.

Learn Something New About Fishing for Bass, Pike, Musky, Trout and the Walleye

There is a copy of Pflueger's *Tips on Tackle* waiting for you and it is chuck full of articles by the leading angling authorities on game fishing, habits and peculiarities of the fish, and how to land them with bait and fly. *Tips on Tackle* makes a dandy addition to your angling library. It will make your fishin' better, costs you nothing but the request. Write for it today.



ENTERPRISE MFG. COMPANY
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See How He Bent It

This is the Spoon

"I like you, Jim, but your Cream is no good,"

said a traveling salesman friend of mine the other day—and he meant it. Claimed he had been giving Mennen's Shaving Cream a fair trial for a week, and it fell short of my claims about 103%.

"Try it once more," I said. "And I'll buy you a dinner if you haven't changed your mind."

I watched him carefully. He squeezed out enough cream for three shaves and brushed it for 39 seconds by the watch, using a scant brushful of water.

"Wash it off!" I said. "You are making paste—not lather. Start all over."

Then I took charge.

He started with about one-half inch of cream and all the water his brush would hold. As soon as a lather was whipped up, he kept adding water until he had built a lather as light as beaten whites of eggs. He worked this lather in *with the brush* for three full minutes.

Say! I wish you could have seen the expression of dawning appreciation that showed in his eyes as the old scythe began to sing through the stubble.

"Gosh! Jim," he said, after the first over, "I haven't had such a shave since that old darky head barber at the *Planters' Hotel* retired, fifteen years ago."

I'm telling this story because it would be too bad for anyone to lose a life-time of pleasant Mennen shaves by getting prejudiced at the start because of a wrong method of using it.

Candidly, our files contain a few letters complaining about Mennen's, but our shipping receipts show that every morning considerably more than a million men use Mennen's—*right*—and like it.

Jim Henry
(Mennen Salesman)




Send
12c.
for my
Demon-
strator
Tube.
J. H.

JIM HENRY,
House of Mennen,
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Dear Jim:

I promise to follow instructions—plenty of water—no rubbing with fingers. Send me a demonstrator tube. I enclose 12 cents.

Name.....
Address.....



THE SOUTH BEND ANTI-BACK-LASH REEL **BASS-ORENO-75c**

THE WINNING COMBINATION

The combination which can always be depended upon to get more fish than others—and in less time. With this ideal set, you can be sure that every cast is perfect; never a back-lash. When your bait hits the water—it is sure to irresistibly attract every fish that is near.

THE BASS-ORENO BAIT

is the most alluring, vivacious, tantalizing plug imaginable. It's peculiarly erratic dart, it's sharp dash and swift dives compel the big gamey fellows to fight! One dozen different colors have been originated to meet all conditions. Live dealers can show you all the dozen colors. One of the best investments you have ever made—75c each—with single detachable snap-eye or regular treble hooks.

Never a backlash, no snarles, no tangles, positively no thumbing—and with the

SOUTH BEND ANTI-BACK-LASH REEL

you get a written unlimited time guarantee. These are the outstanding features of this wonderful reel. Forty thousand anglers find that it adds immeasurably to their sport—and to their results. Makes every cast perfect—day or night. Easy for the beginner and easier for the expert. Anti-Back-Lash feature does not retard line the least bit until bait actually hits the water. Spool stops immediately—just start reeling in. Ask your dealer to see this wonderful jeweled reel.

FREE—THE DAYS OF REAL SPORT


A delightful story of boyhood fishing days with "Pa", illustrated by Briggs, also shows complete line of South Bend Quality Tackle. Send dealers name for it.

SOUTH BEND BAIT CO.
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Send me copy of the Days of Real Sport

Name _____

Address _____



Hunting and Fishing Preserve

5,000 acres of finest game and fishing country, within 100 miles of Toronto. Well wooded with Beach, Maple, Oak, Ash, Pine and Spruce. Has one lake mile long by half mile wide alive with Bass. Four smaller lakes with Brook Trout. Brook Trout stream runs for four miles through property. Excellent fishing. Game, Rabbits, Partridge, Musk-rats, Mink, Otter, Beaver and plenty of Deer. Ideal camp site on smaller lake. Taxes merely nominal. One of the most ideal fishing and game properties in Ontario. Now offered at \$6.00 an acre en bloc.

N. H. WILSON 69 Bay St., Toronto

Rest in one of my comfortable cabins, in the wilds of Pike Co., Rockbound Camp, Glen Eyre, Pa., A. W. LeRoy.

AT CRANBERRY LAKE

(CONTINUED FROM PAGE 228)

an elongated letter "S" over his head. A three pound trout struck from beneath an old log, and he missed. With wonderful dexterity and precision he placed the fly in exactly the same spot. The trout struck five times on five successive casts, leaping clear of the water each time with a vicious lunge at the fly. About this time Mr. Trout decided that the pretty looking Montreal for which he was jumping was nothing he cared for and ceased his labors. But I saw Rudy land a dozen nice ones soon thereafter, and I had witnessed a show you don't see every day, and cheap at any price.

Rudy could not make out why I preferred to fish a stream and catch seven inch trout rather than to sit in a canoe and catch two-pounders casting, but they are distinct branches of the sport, both alluring.

I cannot conceive of anything approaching nearer the ideal, than to follow a beautiful mountain stream, however difficult its passage. There is something fascinating about the rippling, gurgling stream, with its rifts, pools and falls, coursing through the wilderness of Nature's Domain—the moss covered rocks and logs and overhanging trees, surmounted with the tense interest of watching your line straighten out with a sharp tug as a hungry trout darts out and back. Even the wading of the stream holds a subtle charm, completely lost in pond or open water fishing, not by any means to disparage this end of the sport, and needless to say I availed myself of the chance to fish a number of beautiful streams nearby, with splendid success, during my stay. And while back in the harness for another year's work I cherish the memory of trout fishing days at Cranberry Lake.

THE SPORTSMAN BUYER

(CONTINUED FROM PAGE 230)

almost as clumsy as a railroad tie.

The buying sportsman has a right to expect something more from a salesman than what would come to him from a butcher selling pork chops. He anticipates much of the pleasure of the woods and streams in his getting together of the tackle and the duffle for his long looked for play-day. He wants personality, magnetism, sympathy, enthusiasm, of course he wants courtesy but that always goes among gentlemen.

One fine New York store appreciates this sentiment to such a degree that before you are aware, the salesman has you in a real log cabin far above the busy streets, where he puts the little rod together and invites you out on the roof to lay the line across a pool of real water, while the gulls from the harbor wheel screaming overhead.

The sportsman expects to be advised in an intelligent manner as to the correct outfit he needs.

Get the Big Ones

When you're going after the big ones, the first requisite for success is dependable tackle. Dependability of tackle and attractiveness of baits are the Wilson qualities that have won the favor of experienced fishermen.

Black bass—*five pounders, full of fight*—and the biggest muskies and pike—stand a slim chance of getting away when you fish with

Wilson Tackle

—*Absolutely Dependable*

The Wilson line is complete, including Rods, Reels, Silk and Linen Lines, Imported Hooks, Trout and Bass Flies, Baits, Landing Nets, Tackle Boxes, Minnow Buckets, etc.

Leading Hardware and Sporting Goods Dealers sell and guarantee Wilson Fishing Tackle.

Wilson Catalog of Fishing Tackle and Camp Equipment—FREE

Write for this valuable book today. Address Thos. E. Wilson & Co., 700-710 N. Sangamon St., Chicago.

CHICAGO **THOS. E. WILSON & Co.** NEW YORK





Spend Your Vacation

in

Kamp-it

Put an outfit of Kampit clothes in your vacation luggage this year. Enjoy the freedom of movement they afford, their comfort and protection. Put 'em on and you'll forget the thought of clothes.

And yet there's a style to Kampit for lovers of camping, fishing, tramping, riding—a sort of style that they themselves have put into them. For Kampit clothes were designed *by* sportsmen *for* sportsmen.

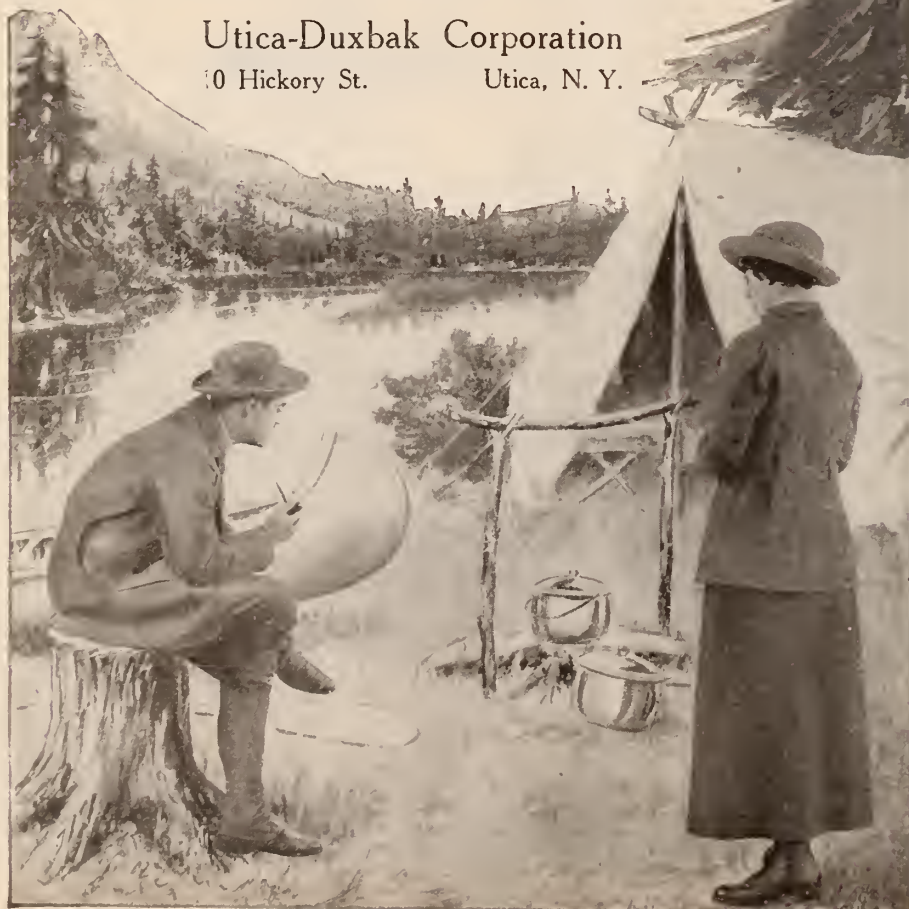
A closely woven khaki cloth made into a variety of garments—hats, coats, middies, skirts, trousers, leggings. Many styles to choose from. At your sporting goods dealer.

Free 1919 Style Book.

Here *Kampit*, *Utica* and *Duxbak* clothes are fully illustrated and described and you'll find many a suggestion for your vacation clothes needs.

Utica-Duxbak Corporation

10 Hickory St. Utica, N. Y.



Mr. L. Dana Chapman of the Wm. Read Co., Boston, Mass., in his article written expressly for *FOREST AND STREAM'S* "A B C of Sporting Goods Salesmanship," says:

"In considering the question of angler's equipment I divide the different methods of fresh-water angling, according to the fish and recommend for:

Bait Fishing for Trout.

A fairly stiff rod and if for stream work one not over 9½ or 10 ft. in length, reel to hold 25 yds. of a dark soft line not enamelled. Short leader, Sprout (generally) hook, size 6 or 8 if worms are used, and No. 1 or 2 if a minnow is the bait. A short handle net hooked to the belt or pocket, creel on shoulder, wading boots, and the outfit is complete.

Fly Fishing for Trout.

Fly rod 8½ to 9½ ft. and of 4 to 5½ oz. weight. Single action reel, 35 yds. of enamelled line of a weight to fit the rod, Leader single gut with loops for three flies (one is better) and for flies the sizes 6 down to 12, according to the character of the water to be fished. A landing net is indispensable with a light rod as the fish must never be lifted above the level of the water by the rod.

For Dry Fly fishing a stiffer rod should be used, heavy line with taper and fine leaders with one fly only.

Trolling.

The rod recommended should be about 8 ft. long with extra grasp above handle, and about 8 oz. in weight, stiff enough to hold 75 to 100 ft. of line behind the boat without straining, but not so stiff but that it will render good action when the fish is hooked, 100 yds. line, water proofed, but not of necessity enamelled; 4½ ft. leader with swivel, sinker if deep trolling is practiced. For baits their name is legion, but a single hook 2/0 to 4/0 S.S. Aberdeen is the best with a minnow attached."

IN the heart of the greatest city in the world, on its busiest avenue a florest shop, in the summer days, had at its open door some flowering shrubs. The shop was walled in on all sides by the skyscrapers of cement and stone, only a patch of blue sky and a shaft of sunlight reaching the passer-by, and yet bees were busily working in the blossoms, winging their way to and fro beyond the city walls, making honey for the winter's store.

An old, white haired gentleman, wistfully watched them come and go. "That carries me back to my boyhood days, to the old bee tree in the orchard. I wonder if these bees go back to the farm. I can see the clover lot in blossom now," and he looked away toward the patch of blue sky.

And so my reader, you can be made to look out of the big windows of the sporting goods store beyond the crowded street, beyond the rod and reel the salesman shows, to the green meadow brook, and the willow fringed pool. You can hear the chattering kingfishes dispute with you his right to the pool.

"Why yes! I'll take that rod, I had no idea it was so late, good night, I'm going home."

Pork Rind Converts!

I would rather take one fish on an Al Foss Pork Rind Minnow, than six on a plug. I fish for fun.
HARRY EBY, NAPPANEE, IND.

On a trip to the Rideau Lakes my guide loaned me one of your Oriental Wigglers. It saved me five dollars' worth of live minnows and gave me ten times that amount of genuine sport.

H. V. Owens, Rochester, N. Y.

Your lures are the best I have ever used.

W. C. Johnson, New York, N. Y.

Last Fall while casting the Oriental Wiggler at Brackets Lake, I landed more pickerel than twelve other anglers combined.

Bob Palmer, Afton, N. Y.

I would recommend the Little Egypt Wiggler as the best pickerel bait obtainable.

E. P. Buzzard, Bangor, Pa.

It is my first choice among 1/2 gross of baits I have collected.

A. C. Haight, Luzerne, Pa.

Your Pork Rind Minnows are all you claim for them, and last year I practically discarded all other lures.

H. L. Williams, Columbus, Ga.

The best artificial bait I have run across.

J. W. Cole, Elgin, Ill.

On a fishing excursion one night this week, I caught nine lake bass in the Cuyahoga River at Troy. It is my understanding that this species of bass rarely, if ever, strike an artificial bait.

C. H. Riegel, Warren, O.

Enclosed please find check for \$5.00 for which kindly send me five No. 4 Red & White Oriental Wigglers. Have thrown all the rest of my baits away.

F. E. Hewitt, Grimsby, Can.

You have the best lure on the market. Have just returned from Florida and the results surprised me. I have been converted and will throw the other junk away.

H. W. Quinn, Washington, Ga.

My Little Egypt Wiggler has done steady work, much better than any plugs I used against it, and greatly prefer it to any plug I have ever used.

B. L. Bowen, Columbus, O.

If I had to give up your little Oriental Wiggler I would not go fishing again.

H. M. Harris, Alachua, Fla.

Tried one of your wigglers Sunday and had better success than a dozen other fishermen put together.

Elmer E. Baddenhague, Neilsville, Wis.

They All Swear by Al Foss Pork Rind Minnows

Continue to have good luck with your lures and look forward to a busy time with them this season.

Edw. Ball, Burlington, Wis.

Am very well pleased with your baits. I often-times fill my creel where bass and red eyes refuse to take minnows or crawfish.

Alfred Clay, Paris, Ky.

Have discarded all my wooden plugs and am using only your bait and Skimmer spoon hook.

H. M. Johnson, Eau Claire, Wis.

Had splendid luck with your Pork Rind Minnows last year so am going out without any other artificial bait at all this year.

H. T. Hutchinson, Humboldt, Ia.

I have been having repeated success with your Pork Rind Minnows on the Wabash River—small mouth bass.

Chas. Huss, Bluffton, Ind.

I feel that I am wasting time when I use other baits.

A. L. Saunders, Winona Lake, Ind.

Your baits run so far ahead of others that there can be no comparison.

Geo. F. Seibert, Auburn, N. Y.

Your bait is a dandy. I caught more fish in two weeks with it than all the others of the party combined, and there were five of them using different kinds of plugs.

S. L. Eldred, No. Pownal, Vt.

I caught around 600 bass down here (Florida) last winter, all on your lures, run short of them and had to go to Tampa for more as the local dealer did not have them.

Fred B. Cooney, Barberton, Ohio.

I used your contrivance and pork rind strips last Fall and they were the greatest black bass killers I have run across.

Alvin Foster, Washington, D. C.

Have had splendid success with your bait, and think it about the best made.

W. S. Duenweg, Terre Haute, Ind.

I think it a great bait.

Dr. D. W. Singer, Goshen, Ind.

I have one of your Little Egypt Wigglers. I would not go fishing without it. It beats the world for blackfish and trout.

R. A. Miller, Jr., Chadstown, N. C.

Your Skidder has got them all topped.

Ray H. Carson, Warrensville, S. C.

I get more strikes and land more large mouth bass with the Little Egypt Wiggler than any other lure.

Joseph C. Ellington, Raleigh, S. C.

Last season I found your Skidder the best bait I ever used for bass, pike and pickerel. Caught ten bass on Lake Cadillac weighing 35 lbs. in three hours—some catch for this lake.

Peter Smith, Cadillac, Mich.

They sure get the bass and pickerel.

Dr. E. W. Boerner, W. Duluth, Minn.

Used your Oriental Wiggler all last season and am pleased to say that it is the best bait that I have ever used.

S. J. Leverenz, Elgin, Ill.

"These Are the Boys That Bring Home the Bacon"



ORIENTAL WIGGLER, 1/2 or 2 3 oz.
\$1.00. All Red, All White or Red and White.



35c. Bass Musky and Fly Spinner sizes

Your lures can't be beat. In 1917 from April 12th to 20th I took 63 bass, 54 on your lures, 5 on Keelings Minnow, 3 on Tango and one on Surprise Minnow.

Walter Montgomery, Mantonville, Minn.



LITTLE EGYPT WIGGLER, weight, 1/2 oz., 75c.

Had the misfortune to lose my "Wiggler" and it was the only bait I was getting fish on. Ho, they bit it!

Edward Ellis, Amherst, O.

Your lures are winners for pike and bass. Have never used a better trolling lure.

Dr. A. G. Wiley, Bar Mills, Me.

It is sure a clean lure—gets your fish without having from five to fifteen hooks to unwind from the net.

C. L. Crenzt, Chicago, Ill.



SKIDDER, weight, 1/2 cz., 75c.

AL FOSS, 1726-1736 Columbus Road, CLEVELAND, O.

Divine RODS

If you would get the most sport out of your fishing, get a lively Divine rod that registers every quiver of the elusive game.

For half a century Divine Rods have stood for the best in the art of rod making—and there are Divine Rods for every kind of fishing.

"FAIRY FLY" ROD
7½ ft. — 2½ oz.

Here is a wonderfully lively rod, skillfully proportioned. Only the highest type of skilled workmanship, and long experience could produce a practicable, serviceable rod of this length and weight.

Rods Made To Your Special Order for particular styles of fishing under special conditions.

1919 Catalog On Request

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Forests, Lakes and Streams afford some of the best hunting and fishing to be had in North America. The moose hunting is hardly excelled anywhere. Send address to the Chief Game Commissioner, Halifax, N. S., for a copy of Hunting and Fishing in Nova Scotia.



Catch Fish, Eels, Mink, Muskrats and other fur-bearing animals, in large numbers, with the New, Folding, Galvanized **Steel Wire Trap**. It catches them like a fly-trap catches flies. Made in all sizes. Write for descriptive price list, and our free booklet on best bait known for attracting fish.
J. F. Gregory, 3306 Oregon Ave., St. Louis, Mo

THOMAS

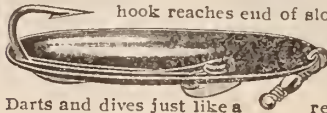
The Thomas hand made split bamboo fishing rod has been perfected to meet both the all around and the various special requirements of the modern angling sport. Made of the finest bamboo, light, resilient, perfectly jointed and balanced. In the Thomas rod the acme of perfection has been obtained. Send for our interesting booklet.

THOMAS ROD COMPANY,
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Land 'em 2 at a Time
Diaz Carroll Sport
For General Fishing, still fishing & general tidal fishing either surface or bottom as well as surf casting it is a handy working little piece of tackle.
25¢ POSTPAID
WORTH TRYING
Direct Pull Spreader ON THE MARKET
INSURE YOUR LUCK BY SENDING 2 BITS TODAY
Schilling's Wivel Spreader
HENRY T. SCHILLING 1722 NARMAN ST BROOKLYN, N.Y.

The Spoon That Hooks'em Every Time!

The position of the HOOK is the reason. Hook releases when fish strikes and sudden stop when hook reaches end of slot sets the hook firmly into jaw.



Darts and dives just like a real fish. Catches more than any other spoon or wooden minnow. Great for all game fish such as Black Bass, Trout, Musky, Pike, Salmon, Cod, Tarpon, etc. Made in six sizes. Ask your dealer for

KNOWLES AUTOMATIC STRIKER or we will send it postpaid.

Fully Guaranteed. Catalog free.

Finishes: SILVER—SILVER AND COPPER—BRASS

Length: 1½" 2¼" 2¾" 3¼" 4½" 5½"

Price each 35c 35c 55c 75c 90c \$1.25

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JOE WELSH LEADERS

CAST PERFECTLY



JOE WELSH
DASAVENA CALIFORNIA
EXCLUSIVE AGENT
- U.S. & CANADA -

"Say Boy!!"

You certainly know how to make Leaders. Send me some more — I gave the last ones you sent to my fishing friends" — wrote Clay D. Manville, Pittsburgh, Pa.

After a Long Wait — Here It Is —

Joe Welsh's

Blue Devil

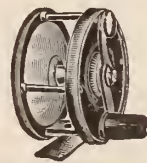
Darning Needle

— GET ONE QUICK —

Send 75c for a "Blue Devil" and a 3 ft. Leader. Better get two — one size for Trout, one for Bass

FISHING TACKLE

Deal Direct With the Manufacturer



Security in buying tackle comes from the honor of the house that builds it. We serve a multitude of anglers who insist upon "value received" for the money they spend and we have no comebacks. Our name on a rod or reel symbolizes the highest achievement of this highly developed art. Since 1867 we have made and sold Tackle. This is surely a recommendation in itself.

Catalog No. 106 sent on request

Edward vom Hofe & Company
112 Fulton Street New York City

During the WAR

our Hatchery received little attention and most Sportsmen were thinking of other things than fishing; but now we are anticipating a demand for stocking and can offer some splendid fry for spring delivery, as well as a limited number of larger brook and rainbow trout. Eyed eggs of both during the season. Correspondence invited.

PLYMOUTH ROCK TROUT CO.,
Colburn C. Wood, Supt. Plymouth, Mass.



Instructions for Net Making

All kinds of fish nets, may be easily and quickly made, with my illustrated instructions before you. 21 photographs show you how. Once learned never forgotten. Also gives more information about the use of nets.

Send to-day. Price 25c postpaid.
W. E. CLAYTON, Altona, Kansas.

THE MEN OF TEMAGAMI

(CONTINUED FROM PAGE 215)

making the trip single handed. In the evening by the time I had cooked and laid out his supper, made the camp and cut his brush for him, it was long after dark. I still had my own tent to make and I was mighty tired. 'I want you to fix my bawth,' he says. 'Heat the water, you know, and all that.' He had one of those rubber baths with him. I stared at him for a moment. Then I said flat, 'You go plump to the devil;' left him and made my bed. Yes, sir, I was mad!"

"And what do you know about this?" added Tiny. "The next morning he was fine as silk to me—the rough treatment seemed to do him good.

"Only once again I balked. This same gent sprained his ankle on a portage. It wasn't swollen much and he got along alright on a clean trail but I guess it hurt some going over the boulders. We came to another lift-over, short and good going. 'I want you to carry me over here,' he said. 'Alright,' I answered. 'I'll take the stuff and the canoe over first. You wait for me here.' I carried dunnage and canoe across and then decided to sit down and wait for him. I was blamed tired. He came after a time — when he got tired waiting. Say, he was mad! 'Why didn't you carry me?' he asked. 'You told me to wait for you over there.' I didn't answer but started down to the canoe. 'I say,' he called after me. 'You told me to wait for you.' 'Alright, why didn't you wait?' I yelled back and went on with the loading. But he wasn't so bad after all, though I don't want any of his friends on my hands. He said I had treated him real well and gave me fifteen dollars extra."

MOST of the guides of Temagami are, of course, of Objibway stock and come from the Bear Island reserve. The services of these are always to be had by tourists, sportsmen, or others, on application to the forest rangers or to Stevens, the genial proprietor of the Temagami station dining-room. French-Canadians—descendants of the old coureurs-de-bois—north country trappers and American woodsmen, are on the roll-call. My guide, himself, came of New York German stock. "Ten years ago I ventured into this country," he said. "The States was always a pretty good home to me and I've no kick coming down that way. But, once a fellow falls into this life, makes a hit and takes a liking to it, he hates to go back where the rivers are slow and the bush only grows in patches. Often I think I'll take a run down south 'cross the line but when I get down to serious figuring I find I'm here for keeps. Look at it from all directions—it's a life that is hard to beat."

Seek far and wide, ask of the wise men of the East and of the West, or go deep into the wilderness yourself and talk with other men of the open places, and you'll find no finer band of men than Ontario's guides of the North. Brown or white, Objibway or Canuck, they are diamonds in the rough, but Nature's gentlemen—every one.

NEW BOOKS

The Desert of Wheat

By Zane Grey

"There is a bigness to the novels of Zane Grey that makes them impressive. He is prophet as well as poet of the West."—*Philadelphia Press*.

"Zane Grey has the secret of writing a rattling good story. He has always had a keen, appreciative sense of literary standards, and, besides, has lived up to them sincerely in every one of the many volumes of Western stories he has written."—*New York Sun*.

Illustrated. \$1.50

Dwellers in Arcady

By Albert Bigelow Paine

In this sympathetic and poetic story two city-tired people go to the country in search of the ideal home where they can bring up the family far from the madding strife. In Connecticut they discover their hearts' desire . . . an old deserted house, several acres of neglected land, a brook and some tumbling stone walls . . . in fact, an abandoned farm. The whole tale is told in Mr. Paine's unique way.

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Keeping Fit All The Way

By Walter Camp

Mr. Camp here preaches the gospel of health to middle-aged men. He points out the danger to health in a man's allowing himself to get out of good physical condition, and he tells him how he may recover his impaired vitality.

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By Edward Owen Dean

This book tells in the simplest, most straightforward way, what farming is, why it is fundamental in the life of the world, and what a man has to be and do to make a success at it. The sort of book for the returned soldier.

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The contents of this volume are based upon the most elaborate, unique, and extensive series of food investigations ever made, and by the use of new methods results have been obtained which have absolutely upset many of the cherished theories of layman and physician.

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have created such a sensation that several imitations are being made. The original "CALLMAC" floating bugs are put up on cards stamped **Mc CARTHY PATENT**. None other are genuine.

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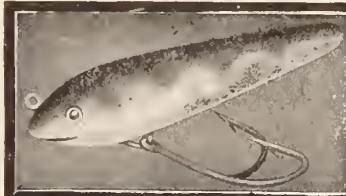
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SEE THEM AT YOUR DEALERS



THE FLY ROD WIGGLER is positively the greatest fish getter ever used on a fly rod. Handles easily on any ordinary fly rod. Has the slow wriggling zig zag movement of a cuppled minnow. Great for large and small mouth bass, large trout, pike and pickerel. Exquisitely finished in Silver Shiner, Red Side Minnow, Yellow Perch, Red Head, etc. Two sizes, 1 1/2 and 2 1/2 in. Can be used on bait casting rods by adding small s.n.ker.

Price each 50c. Four in compartment Box \$2.00. Send stamp for catalog of Baits, Flies, Lines, Hooks, etc. W. J. Jamison Co., Dept. S, 736 S. California Ave., Chicago, Ill

YOU DON'T WANT Back Lash Snarls



There is a new device that automatically spools the line onto the reel with a kite wind.

Experienced fishermen as well as others like them.

Gem Reel Winders \$1.50 Each at Your Dealer or **GEM REEL WINDER CO.** 400-132 Second St. Milwaukee, Wis. YOU DON'T NEED TO HAVE.

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are so designed in taper that they are quicker in action and more powerful for their weight than other rods. Granger Rods are built of the finest bamboo, cut to an accuracy of 1/1000 of an inch, and thoroughly seasoned in Denver's dry climate. This produces a flawless rod, resilient in action, light, yet possessing the necessary power to cast a long line true and steady under all conditions. Rods for trout or bass at prices ranging from \$4 to \$27. Send for our catalog today if your dealer does not have Granger Rods.



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OF 20 PER CENT

These changes are based on post bellum conditions and conform to our long established policy of giving

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MR. WALTER GUZZARDI, an experienced restaurateur, is in charge of the cuisine.

FOR EXAMPLE

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Cape Cods45	.35
Strained Chicken		
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Cream de Luxe25	.20
Petit liner sur le plat.....	\$1.25	

Supper Dances from 9 P. M. to Closing.

Alluring Dance Orchestra.

In addition to the reduction in food prices, all assembly rooms, including the Grand Ballroom, may be secured on any date available (Saturdays excepted) at a reduced price. This offer holds good until September 1, 1919.

We cannot make corresponding reductions in room accommodations, as these prices have not been proportionately advanced during the war period, and our rooms are continuously in demand.

CROW WAR DECLARED

(CONTINUED FROM PAGE 213)

three should alight in the tree at the same time.

A telescope adds much to the pleasure of this kind of shooting by giving a feeling of absolute confidence and seeing the cross-hairs shining on the black coat of the target. One feels he is a dead crow even before pressing the trigger, and he generally is. Personally I enjoy the sniping game more than the shotgun game. For one thing it is "fine tackle" work. A shotgun is such a blunt, coarse instrument. But that is merely a matter of taste. Certainly there is no need for sportsman's ethics in shooting crows.

With a good .22 and telescope, I know of no keener sport than stalking crows in summer. Hunting the phlegmatic woodchuck is tame beside it. And besides, one knows he is doing a good turn to the mother robins and larks. In spring and early summer when all shooting of game is taboo I can have as much fun as at any time in the open season. Besides the consciousness of doing good service, the crow is a smart bird as a rule, and isn't exactly easy to kill by stalking. One can carry a call while stalking if one wishes, and call up many a shot one would not otherwise get. Still the tendency of a crow, when called, is to keep moving. Shots at 100 yards or a little less are easily obtained, with or without a call. A good .22 and telescope makes a deadly combination at ranges of 100 yards and less.

I generally wear tennis shoes for all kinds of pussyfoot hunting, having acquired the habit in the Coast Range, hunting deer. I know of no kind of small game hunting more delightful than gliding swiftly, like a shadow, under the heavy-leaved maples and gnarled oaks of the bottoms, sneaking toward a crow "caw-cuss," or stalking a lone sentinel on some high, dead tree. The practical assurance of a kill if one can get within 75 yards, and get a shot, gives an added thrill to the stalk. One cannot always get a shot, even when within range, in the leafy summer woods. A field glass is very valuable in this connection in spotting the game among the leaves. Even a small opera glass is a vast improvement over naked eyes. One can do without it better in hunting crows than he can in hunting squirrels.

THE boy in his teens is really the foundation of any campaign against crows that is to be successful. A sufficient bounty to make him take an interest will do more to keep the crow population within bounds than any campaign based on the hunting of grown men, however desirable and laudable that kind of a campaign is. The boy likes to hunt, and in closed season is in hot water. Often he violates the game laws cheerfully. With crows to shoot he would not only be pitting his wits against a worthy adversary, one that would make him work for all he got, and develop the powers that go to make him a hunter, but he would acquire an instinct for backing the law instead of breaking it.

By killing crows and getting a nominal bounty he would be doing a service to the state, making a little money for himself, and having the time of his young life, all at the same time.

In the spring, when crows are nesting, is the time when the small boy who has not yet acquired much proficiency, or who has not a good rifle, can get in his best work. How well I remember the wild onion days in the Kaskaskia bottom when I was a youngster. It may seem peculiar, but I always associate wild onions with nesting crows. Perhaps it is because when sent to gather a mess of nature's onions I often went climbing trees for crow's nests and forgot to come back until dark. Anyhow, wild onions and crow's nests were inseparable in the formative years of my childhood and youth.

Just to be in the woods in those days in early spring when the warm wind comes steadily out of the South, when the red-bud traces a Japanese pattern of flowery embroidery through the almost leafless woods, and the yellow dandelions star the upland pastures, and big, luscious mushrooms push up through the mold on the hillsides, that is to truly live. It is early fishing time, but the woods have a call—even away from the waters. Fishing is comparatively simple and easy. Crow shooting is difficult by comparison. It appeals to the sporting instinct of the boy. He likes to try something hard.

He locates a crow's nest. If he has a rifle he takes his pocket knife and cuts boughs and makes a blind that will command the nest. Even then it is not easy. He waits long hours for her to come to the nest. Perhaps she sees him and will not come on. Along in the late dusk of evening when it is almost too dark to shoot she comes and lights on the nest, and after turning around a few times and adjusting her eggs with her feet to suit her she sits down. Then the small boy shoots at her through the nest. Perhaps he gets her; perhaps he does not. In the latter case he will have to try again another time. Perhaps he climbs the tree and puts a steel trap in the nest. If he does she abandons it. She will even abandon her young to starve under such conditions. The young have a habit of throwing the trap and getting themselves caught by the necks. Also the small boy discovers that the young crows will eat clods of dirt and sticks as readily as they will worms. Their one obsession is food. They cry for it as vociferously to the boy as to mother crow.

BUT the small boy cannot find all the crow's nests there are in the woods, so some young crows are "brought off," to use the term of our grandmother with reference to a brood of her chickens. If he should not find the nest until all the young crows have left it and are able to fly perfectly well, and have all the outside appearances of an old crow, with the exception of that possible look of greenness that distinguishes a college boy from his dad; if the small boy finds this he will have the finest shooting it is within his scope to master. With the gun a youngster of the more tender years generally has, he cannot kill old crows



LUNCH in a JIFFY

GOOD hot coffee and a tasty lunch ready in less time than it takes to gather wood for an ordinary camp fire. No delay, no fuss or trouble when you use an

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Size folded
14 1/2 x 8 x 3 1/2
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Weights only
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CENTRAL HOUSE BELGRADE LAKES, MAINE OPEN MAY 1st FOR EARLY TROUT FISHING

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Gamey square tail trout 3 to 8 pounds await your skill in these famous lakes.
Fly fishing for black bass in early June.
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except on rare occasions. But these young crows which have not yet acquired worldly wisdom are meat for him.

I had a .22 Flobert with a 20-inch barrel and coarse iron sights. A four-inch group at about 20 yards was as good as I could do with it. A woodpecker in the top of a high tree was out of range. Old crows laughed at me. (Except when I caught them on nests.) But these full-grown young ones that had flown the nest were my particular hunting joy. Many a time I have come upon one walking about on the ground, or two or three of them sitting about in a tree, and potted them all with the little "babbit-metal" gun.

My grandfather had an old Kentucky rifle, calibre 36, with a 44-inch barrel, weight 13 pounds—the most of it on the end. On a broad leather strap about three inches wide (worn over the shoulder like a bandolier), hung the powder-horn, and, suspended by a buckskin string, a common sewing thimble for a charger. A leather bullet pouch completed the rig, also attached to the strap.

With a dime's worth of black powder and a five-cent box of caps, bought from the local store, and bullets made from the sinkers of rotting fish nets in the old fireplace, I was equipped to do more effective work on crows than with the little gun. There was no bounty stimulus, but the campaign was continuous and unrelenting, for I had been taught the mischievous nature of crows from early childhood and had plenty of opportunity to see it. Besides they were hard to kill, and that appealed to me. Many days, when the wild violets were blooming and the trees were coming out in pea-green new leaves, I lugged the old Kentucky rifle to the woods in quest of crows. A continuous guerilla warfare was waged on them, both old and young. Crows began to fall to the old Kentucky rifle at ranges of 75 yards and more, and then I was supremely happy. I had gotten so I could kill old crows. But I never became skilled enough to kill hawks until I was a man.

My theory is that small boys are more or less chips off of one block, and that other boys could have as many glorious days in the woods as I had, and do a service to the state as well; if a slight financial inducement were given them to get them started. Hunting crows is not easy enough to become a bore, and the boy can take a pride in the fact that he is bagging one of the smartest birds of the fields and woods. He will learn stalking to a certainty. And it is good sport for grown-up boys, too.

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THE COLORS OF FISHES

(CONTINUED FROM PAGE 220)

nocturnal red fishes have red deep-water relatives, and an explanation of their color should rather be considered a problem corrolary to that of the red deep-water fish. Possibly it is a mere inheritance from deep-water ancestors. Then there are many fishes whose habitat and colors are intermediate between the different groups, or we find on the reefs bottom species (a variety of small blennies comes to mind), adapted to the reef in habits and colors just as they and their relatives are to other types of bottom.

SO far any mention of the great variation of color found within many species of fishes has been avoided. The males of many species assume high colors in the breeding season or when stimulated by breeding activities. My observations of such males are sufficient for me to conclude that in some species they have a higher visibility than when in normal, more neutral color, and I assume that this is ordinarily the case. It is safe to assume also that an explanation of the high colors of such males should be homologous with that of the more permanent high colors found in the plumage of many male birds. The Darwinian hypothesis of sexual selection is so far the most satisfactory explanation of the phenomenon, though from some aspects an unsatisfactory explanation, at least in its unmodified form.

Extensive, rapid, color and pattern changes in individual flounders have been experimentally proved to be an adaptation for concealment, rendering the fish equally inconspicuous on various bottoms.

Fishes from the white bottoms near Key West I have found, as a rule, to harmonize in general color with the tone of the bottom, individuals from here being often very much whiter than those of the same species taken elsewhere on darker bottoms. From these considerations I would expect many color changes undergone by individual bottom and weed fishes to be correlated with concealment. Observations, particularly in aquaria, prove that there are color changes correlated with the fish's mental or physiological condition and apparently with no other bearing.

Many fishes undergo considerable color change with age. For instance, the young of the dolphin which hides about weed and other drift has a dull mottled color quite unlike that of the free-swimming adult, young and old belonging to quite different groups, according to my classification, and with colors correspondingly different.

In many, not all, of the boldly colored reef fishes, individuals undergo considerable and rapid changes of color. Prof. Longley finds that the Red Parrotfish, *Sparihoma abildgaardi*,² (which I believe to be a typical reef fish, usually conspicuous, though my experience with the species in life is limited) has gray and brown probably concealing phases, and

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² Longley, *Journal Exp. Zool.*, 23, 1917: 547.



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AN OLD FRIEND

By HENRY BANNON

IN a little book shop I discovered in an alcove marked Sport and Adventure a quaintly illustrated old book which, though new to me, seems like an old friend. The title page bore the inscription "The History of One Day out of Seventeen Thousand" by Judge Nutting (Oswego, N. Y., 1889) and a glance showed it to be a reminiscence, evidently written by a man about fifty years of age, of his first day in the field, hunting with his father. The book contains but fifty-three pages and a cursory looking over gave evidence that it was written by one of unusual attainments who had a message to tell. The charm of the simple story and its message created the desire to know something of the old time sportsman who wrote it.

An investigation developed that the author was Judge Newton W. Nutting, a prominent citizen of northern New York who lived from 1840 to 1889, during this brief time serving his state with distinction as District Attorney, County Judge and as a Representative in Congress. During the days of his last illness, which were many, Judge Nutting wrote this little record of his first hunting adventures, probably to obtain relief for a weary mind or because of the old adage that the ruling passion is strong in death, for it is evident that his love of nature amounted to a passion. The book contains many incidents of the day when he first carried a gun and delightful memories of his mother and father. It well illustrates the great influence for good that a father obtains over his boy when he makes him his hunting companion for no other sports give such opportunities for something in common between man and boy as hunting and fishing.

Judge Nutting thus describes in some detail the old pill-lock shot gun in common use when he was a boy:

"The old 'Pill-lock' was the most striking and curious thing about this gun. The cylinder that went into the barrel at the breach, was like that of any muzzle loading gun, except, perhaps, it was a trifle larger.

In the place of the nipple, which, in a cap lock, receives the percussion cap, there was a hole in the top of the cylinder.

The lock and hammer were like those in an ordinary gun, except that the hammer was pointed at the end, and the point fitted into the hole in the cylinder.

The fire percussion was in the shape of a pill, about the size of the small, round sugar pills, used by doctors to cure sick people, and these pills were black, and were kept and carried in a goose quill. When the gun was loaded, we were careful to see that the powder, which had been put in the gun, came in sight in the hole in the cylinder, and then we took one of the little black pills from the goose quill, and put it in the hole so that it would rest on the bottom, where the point of the hammer would strike it, and create the fire that reached the powder in the gun, and explode the charge."

THE description of how towards evening he killed his first partridge, when his father sent him off by himself to a little grove of hemlocks where some birds had taken refuge, is interesting.

"Then it was that I started on my first real hunt alone. I went along quickly, but carefully, towards the hemlocks. There were five of these trees in a group and from the side I was approaching the branches were so thick (and I was looking toward the dark thick woods, too) that I could not see the parts of the trees where the bird would be likely to light. I went way round the bunch of hemlock until I could look into them from the woods side and toward the light of the west. The light was growing a little dim for the sun was sinking down close to the horizon, but my eyes were good then.

"I carefully examined every branch on the tree next to me, and then the next, and found no partridge. I began to feel the chances were slim of finding the bird as the best trees for him to light in I had already searched. But I commenced to examine the third tree. I began first to scan the lower limbs and my eyes passed along up the tree and searched each limb carefully. When my eyes had reached two-thirds to the top of the tree and about thirty feet from the ground, all at once I saw the old partridge sitting close to the body of the tree, with his breast toward me. He looked as big as a goose sure. After a second, just a second, my wits came to me and I raised the old 'Pill-lock' to my face. Somehow I had cocked it but I never could recollect how or when.

"I looked straight at the light colored feathers of the breast and pulled the trigger. The gun made an awful noise and turned me half 'round. It gave out a long stream of fire and lots of smoke. I remember hearing the noise of the discharge as it went off through the big maples and beeches. I never will forget that shot. It took me about a good, long second to bring myself together. I looked to the foot of the tree and there lay the bird dead as a stone. I ran where he was and picked him up.

"That was one of the proudest moments I have ever known in my life. I turned my face toward the sky, and gave a halloo of joy and victory. Just then the dog came to me in a bound—to see what all the noise was about, I suppose. I held the bird down to the spaniel, and he looked up in my face and whined, and moved his tail, as much as to say, 'Well, that is good enough'.

"I went along out to where father was. I had the old "Pill-lock" in one hand, still smoking, and the partridge in the other. There were logs and bushes in my road, but I say to you, here and now, that I did not remember stepping over either logs or brush.

"I held up to father's gaze the partridge, and he said, 'Well, well you have done it sure. That is a fine bird, and it was a lucky venture when you went after him. You are all right now, and shall go hunting again with me'."

The story depicts a phase in American

(CONTINUED ON PAGE 247)

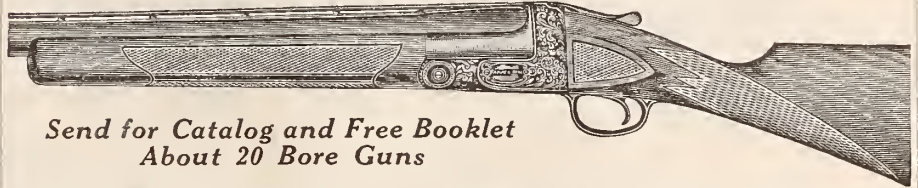
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A CONSTRUCTIVE CRITICISM

(CONTINUED FROM PAGE 217)

short time but have killed a 4¼ lb. trout with it on a XXX gut point.

During last season I caught nothing over 2½ lbs., but I caught a number between 1½ and 2½ lbs., the great majority on XXX and a few on XX gut points. I think that goes to prove that my present "best" rod is not too powerful for fine leaders.

In describing the type of rod to select for dry-fly fishing I had this rod in view, because I believe it is one of the best ever turned out by the makers.

Last spring Mr. Emerson Hough had a very interesting article on fly rods in the *Saturday Evening Post*.

The gist of his article was that American rod makers of late years had been more intent on producing a tournament type of fly rod, than in turning out a good rod to fish with. In fishing it is not necessary to be armed with a weapon that can throw a line a record breaking distance, because it would be useless to cast such distances (unless fishing a wet-fly down stream) because if we did place a fly 100 feet away and a fish took it, there would be 99 chances to one against landing that fish. Therefore the long range rod is out of place at the water side. What we do want, however, for dry-fly fishing is a rod with enough power in it to enable us to handle a moderately heavy line in a strong wind, and also to maintain that line in the air when drying the fly.

THE older generation of English dry fly men were wedded to their heavy lines and incidentally heavy (from our point of view) rods, because where the best of their dry-fly fishing was, they had to contend with strong winds; but the newer generation, and even some of the older men, are using much lighter rods than the Halford type of rod and whenever there is a demand there will also be a supply. Therefore the English rod makers are supplying light weight dry-fly rods which are very hard to beat.

Just about the time that Mr. Emerson Hough's article appeared last spring, I received a letter from him in which he told me he had, after inspection, decided on a Hardy rod. I do not advise any one to buy a Halford type rod unless the special conditions under which he fishes demand a very powerful rod.

If one's fishing takes one where the trout are extremely sophisticated and the use of fine leaders is required, get a rod as I have tried to describe. It will be noticed that the butt joint of my rod weighs 4 oz. nearly half of this weight is made up of the cork handle, reel fittings, etc. Oftentimes a "light rod" is made with a very skimpy handle and the very lightest of reel fittings. I imagine that it would be possible to skin a little weight off the rod in question but then in order to get a perfect balance it would be necessary to add a little counter weight to the reel.

I have two reels that I use with this rod, one is a "St. George" 6½ oz. and



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the other a "Uniqua" 6 oz. The lighter reel has enough soft lead wire wound round the bottom of the spool to bring its weight up to that of the heavier; because with the heavier end the rod is in perfect balance.

Fishing with an unbalanced rod is not a very great pleasure and it is wonderful what a difference it makes when using the same rod correctly balanced.

I HAVE found that the effort required to pick up a line (when well rubbed down with deer fat) off the water is much less than that required to retrieve an equal length of line that is not floating on the surface of the water. Some of the selling points in connection with rods in English catalogs was written possibly 30 years ago, and I suppose they keep on printing it from force of habit. We must remember however, that not everybody likes the same things. Some of us prefer rare meat; others want it cooked until it is black in the face. Someone who possibly had a great local reputation years ago, used a rod with an "extra heavy tip with maximum lifting power." Those who were not quite so fortunate or skillful, attributed the success to the top heavy rod, and in all probability ordered similar monstrosities for themselves, hoping thereby to change their luck. Consequently the maker of such a rod had a demand for it, and one can't blame the poor man if he continued to list it in his catalog.

THE illustration showing the taper of my rod is only approximately correct. However it does illustrate very clearly the difference between an even taper from butt to tip and a variable taper.

If a drawing was made full size, the difference between an even taper and a variable taper, such as is shown would be hardly noticeable to the naked eye, nevertheless when we get down to business and use a micrometer to measure the diameters we find that the rod is not an even taper, and in order to show this plainly it is necessary to multiply the diameters by at least 5 and divide the longitudinal distances by about 10.

I venture to say that there are no good dry-fly rods that are a uniform and even taper from tip to butt. Measured in a casual manner they may appear to be so, but if we go after the figures accurately I think we shall find that the taper is a variable one and I believe that one of the secrets of successful rod construction is knowing just how to taper the rod to get the required results.

AN OLD FRIEND

(CONTINUED FROM PAGE 245)

life that FOREST AND STREAM is endeavoring to preserve to the American boy. The father who is a hunter and makes a companion of his boy in the fields, the mountains or at the streams does much to build up a manly man. And such an association in the after years is a heritage of rich recollections.

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GAME TRAILS OF CHEVELIER BAY

(CONTINUED FROM PAGE 208)

by time and bare of any substance. "It beats me how they can get things to grow out of this shell!" John exclaimed, "but yonder is a garden—actually. And it looks in bully shape. I can see radishes, beans, green stuffs and—and there is an orange grove!"

"Its the same old story of Florida rumor," explained his father, "the Seminole must have been looking for pearls. This would account for the innumerable shell mounds. Yet this one, at least six hundred years old, has not lost its original identity. You have just located an almost perfect conk."

THERE were two stores on the island, with Smallwood's neat concrete house the most assuming. Its shelves were laden with curious stock . . . grains in bags, hides, coffee, fire-arms and what-not. One marvelled that such stuff could ever find its way up to far Chokoloskee. Smallwood himself greeted them. He was alone at the time. Much to Mr. King's amazement he came slowly forward stretching out a big, hard-gripping hand.

"Howdy," he said, "Mister King's party, aint it?"

It was on the tip of the other's tongue to ask how Smallwood knew. As quickly he checked the impulse. "Ask No Question," was what he had been told on entering Chokoloskee.

"Right," he retorted.

"Goin' to survey a little up Turners?"

"That's what brings us here, Yes Sir. We'll need some supplies in the morning and some advice about game and fishing. We'd like to try a little of both before we go back."

"Plenty of it," Smallwood answered.

He was an impressive man, standing six feet tall, and possessing a certain odd dignity of poise and manner. For Smallwood was a pioneer . . . a quiet, good-natured tradesman, who was known as a sure marksman and—quick on the trigger in a rumput.

Mr. King bought some coffee and grits and a can of kerosene. He took a check book from his pocket and paid the small amount in this way. Here is another rule of the Chok' district. Never, NEVER flash real money. Nor did Smallwood hesitate a moment in accepting this check. He gave it a swift glance and, folding it, placed it ceremoniously in his ledger.

"Goin' to stay ashore to-night?" he inquired, "I can put ye up."

"No, we'll sleep in our boat," Mr. King responded, "thanks just the same." Smallwood began to grin.

"It'll be a wonder if ye sleep," said he.

"Why?"

"Special church night," was the answer, "wait until midnight and open yer ears."

This came as a true prediction. Shortly before twelve, long after the weary party had rolled up in their covers, there issued from the little gray church such a series of howls and



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COOPER'S CAMPS, Eagle Lake, Maine

groans and lamentations as surely never came from human throat before. In the darkness it was absolutely uncanny.

"I'd like to go down and see who is dying," whispered John, "what is a Holy Roller, please tell me."

Hendry was sitting, smoking, in the bow and looking out upon the star-lit bay. He turned sharply—eagerly.

"Come—you go with me," he said, "I show. Can he go, Mister Big John?"

"Anywhere with you, Hendry," was the sleepy response. But Mr. King's thoughts were elsewhere at the moment. He was trying to work out in his own mind how Smallwood knew they were coming up to Chokoloskee.

(TO BE CONTINUED)

THE COLORS OF FISHES

(CONTINUED FROM PAGE 243)

it is not unlikely that other ordinarily conspicuous reef fishes may have the same, which they assume especially when venturing away from the reef.

RECENTLY a great deal has been written about the coloration of animals by persons differing as widely in temperament and training as the poles. So much of it is contradictory, that it must be confusing to a student of the subject who has not a good many correlated observations of his own by which to gauge it. To such a one, however, it is almost all of interest; he never can tell where he will find an idea or an observed fact that will modify or clarify his own views. The storm center of discussion of late seems to have been as to the universality of concealing coloration. The Thayers,³ with their artist's training in color values, have shown how concealing coloration may be and probably is more widely extant than it at first thought appears. Roosevelt⁴ has called attention to how exaggerated some of their claims are—and so it goes. It is not the writer's purpose here to enter the discussion beyond sketching the facts with which he is familiar and indicating the manner in which he interprets them.

The most reasonable hypothesis seems to be that on a "background" of inheritance modified by physiological considerations, an animal's colors are generally useful to it in one or more of many ways. In a limited number of cases every other color tendency is subordinate to concealment, in a vastly greater number of cases its colors give it a low visibility, set limits to its conspicuousness. Often conspicuous colors, for warning, recognition, or some other benefit may be present, interfering sometimes little, sometimes greatly, with the tendency to inconspicuousness. There is little to be gained by dragging the theory of natural selection into the discussion in its present stage. There is no doubt that it will explain concealing, warning, directive, etc., coloration satisfactorily; the question is not can they be explained, but to what extent do they exist.

³ See Thayer G. H. & A. H.), Concealing Coloration in the Animal Kingdom, 1909.

⁴ See Roosevelt, Bull. Am. Mus. Nat. Hist., 30, 1911: 119-231. Am. Mus. Journal, March, 1918; 211-218.

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No. 4—Solid cork grip and forward grip, nickeled reel seat with trigger and Locking Reel Band, full agate guides, German silver ferrule. 4 1/2 and 5 ft. Price, \$10.00. 5 1/2 ft. Price, \$8.00.

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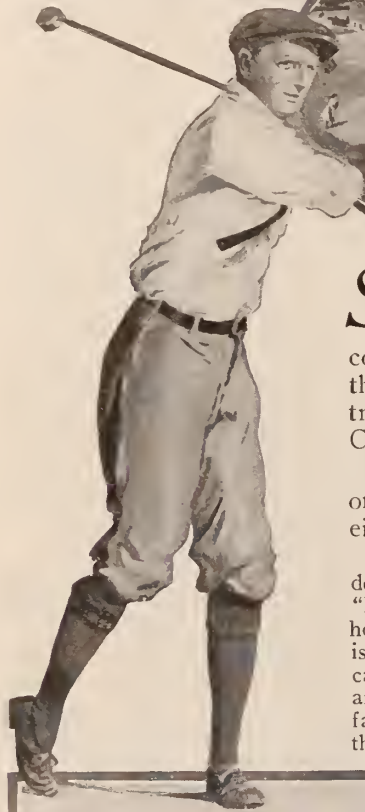
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JAMES ALEXANDER HENSHALL

(CONTINUED FROM PAGE 211)

line, a side track, and an old box car used as a shelter for the section hands, one of whom, on this occasion, happened to be sitting on a bench in front smoking his pipe, and idly watching the two boys concerned in this adventure. He saw me take the plunge, and later witnessed my vain efforts to swim; and then remembering how very cold the water was at that season, he laid down his pipe and rushed to my assistance shouting to Johnnie:

"That boy is drowning!"

"Oh, no," said Johnnie, "he can swim like a duck!"

But paying no heed to this he threw off his jumper, drew off his boots, and waded into the pool, which was not over his head, reached the spot where he had seen me sink, and soon located me lying on the bottom. Reaching down he got a firm hold on an arm and dragged me ashore more dead than alive. He then held me up with my head down, the water running from throat and lungs. Sitting down on a log he placed me across his knees, worked my arms to and fro, as Johnnie said, "like pump handles," and then pressed my chest against his knees repeatedly, and slapped me smartly on the breast and back, until I began to breathe faintly, whereupon he sang out, as Johnnie said, "Bully boy! Keep it up!" Then when somewhat revived, he carried me up to the box car, Johnnie following with my clothes.

He made a fire in his stove, heated some coffee, which he gave to me quite hot. He rubbed the cramps from my limbs, replaced my clothes, and finally standing me on my feet near the stove said:

"It was a mighty close shave; a few minutes more and you would have croaked, sure enough."

JOHNNIE and I were very profuse in our thanks for his timely assistance, and asked what we could do to reward him. He replied:

"I have a boy about the same age as you are, and he might need a friend some day when in a tight place, for one good turn deserves another."

"What's his name?" inquired Johnnie. "Same name as mine, Jerry," he answered.

"Next Saturday we will be here again," said Johnnie, "and please have Jerry here too so we can meet him."

"Very good," said he, "Jerry will be very glad to come and meet you."

I then took my Barlow knife from my pocket, which special brand of knife men as old as I am will remember well, and handed it to Mr. Jerry, saying:

"Please give this knife to your boy as a keepsake from us."

"Thank you kindly," he replied, "Jerry ought to be very proud to own such a fine knife."

By that time I had begun to feel strong enough to walk home. He took my jacket and warmed it at the stove, put it on me and said:

"Good-bye laddies, don't hurry; rest

by the way; but get home as soon as you can."

When about halfway to town I happened to place my hand in my pocket and found my knife, much to my surprise, and said:

"Oh, Johnnie; Mr. Jerry put the knife back in my jacket pocket when he warmed it at the stove!"

"Yes," said he, "you know a knife cuts friendship; that's why."

At the appointed time Johnnie and I went to visit our friend at the box car, to meet young Jerry. We took with us a small package containing a selection of our best crystals, agates, chaneys and white alleys, and a lignum-vitæ top with a sharp steel plug capable of splitting any ordinary top when "plugging in the ring." To these were added my copy of "The Boy's Own Book," a fishing line fitted with hook, sinker and a red and green float. These treasures we intended for young Jerry. But bitter disappointment awaited us, for on arriving at the old box car we found, not Jerry, but another man, his successor, who informed us that our friend had been promoted and transferred to a station farther up the line, but he did not know just where. We never saw Jerry again, as we failed to locate him after diligent inquiry. We never told our parents of the affair at the old stone quarry for fear that they would have lost confidence in our oft-repeated assertion that we could "swim like ducks."

As previously stated, when I lost consciousness and sank for the last time, Johnnie appeared to me like a huge white bird about to take flight. He explained this by saying that he was then removing his white shirt, which was pulled up over his head with his arms stretched out. This illusion to my distorted vision perhaps had some connection with his anticipated flight of the month before.

(TO BE CONTINUED)

THE BOY AND THE TROUT

(CONTINUED FROM PAGE 214)

all, and the fight was on again.

During the next few moments the Boy experienced many thrills, both of elation and of despair, as the big trout came almost within his grasp and then as suddenly eluded him. It seemed to the Boy as though the fate of empires hung in the balance. What if he should make some clumsy move at the very end and the prize that was almost his should be denied him?

To make a very long story a little shorter, the Boy was finally fortunate enough to get his thumb into those gills, and after what seemed like two hours of the greatest fight he ever had with a fish (but which was probably half an hour), he laid that beautiful old warrior on the grass and danced for joy.

One of the most triumphal entries in history took place a little later as the Boy approached the group still sitting around the fire at home, and carelessly displayed a 16-inch brook trout to the admiring gaze of the scoffers.



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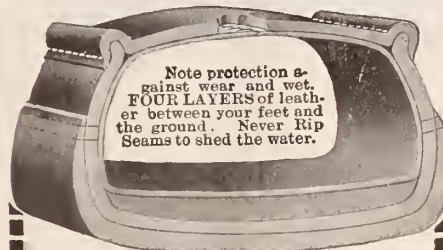
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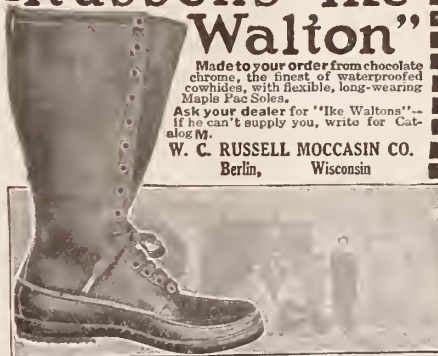
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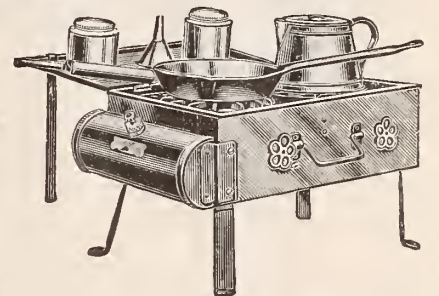
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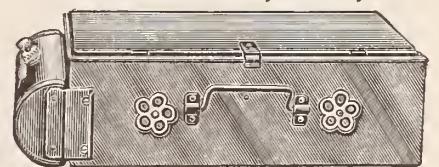
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SHEEP HUNTING IN MEXICO

(CONTINUED FROM PAGE 205)

hit usually runs down, so I ran around the point to try for another shot. In looking for my game, I heard a racket among the rocks above me and espied my ram kicking his last. By the time I had him dragged to the bottom, my guide was there and told me he had killed his. The one I got was a beautiful specimen, while not a record set of horns, still it is one of the best in Texas and now adorns a wall in my home.

While the guide went after the team to haul in our game, I continued on around the mountain and soon discovered another lone sheep bounding from rock to rock. I opened fire and the second shot hit him hard and started him down the mountain. I continued firing until I emptied my rifle but for some cause or other was unable to hit him again. I hastily climbed up where the sheep was and found that he was bleeding profusely. I expected to have that sheep in a very short time, so pulled off my coat, left my canteen and camera and started along the bloody trail. After about two hours of the hardest climbing I ever did in my life, I decided to let him go, as he crossed saddle after saddle in the mountain and started for the higher points. I knew from this, that the wound was not serious. Then the weary trudge back to where I had left my coat and canteen. It was late when I returned to camp and after partaking of supper consisting of broiled sheep, fried potatoes, coffee and flap-jacks, I soon turned in for the night.

ABOUT 10 o'clock the next morning while returning to camp we noticed dust rising in the distance; my guide hastily climbed upon a rock, and immediately climbed down again, and without excitement announced: "Bandits—on our trail!"

We made a run for the rocks and hid, hoping they would pass, but they had discovered us climbing through the rocks and five of them advanced toward us. We did not want to kill them, neither did we want them to kill us, so my guide decided to send a ball in front of them as a warning. When the 30-30 kicked up the dust in front of them they stopped short and after a few minutes hesitation they wheeled their horses and rode off in the direction from whence they came. We got real busy getting our trophies in the wagon and did not stop until we were safely on American soil.

In conclusion I wish to say for the benefit of any sportsman wanting to hunt sheep, that I believe that this section of the country cannot be excelled. It is a delightful place for an outing in the winter, being free from rain or snow, climatic conditions all that can be desired and with a guide who knows the country, one cannot fail to kill at least two or three sheep, and I was informed by my guide that a little further in the interior sheep were extremely plentiful. Charges for guide are very reasonable.



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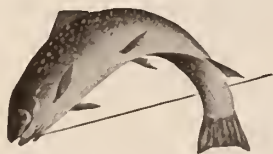
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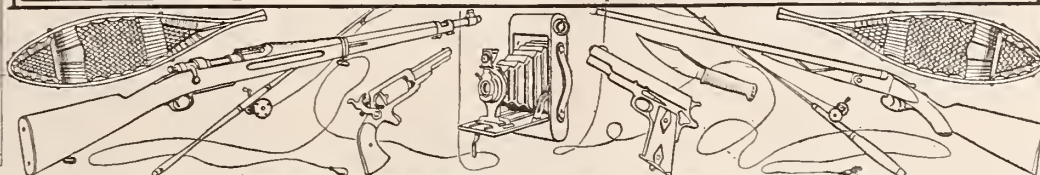
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A REJUVENATION

(CONTINUED FROM PAGE 217)

trimmed it down for him, and succeeded in getting a vigorous strike from a pickarel but did not hook it. "Hook's too small, that's why," said the boy, "like mine 'tother day.

"When you go after them birds you want a big hook, they got a mouth just like a goose on'y bigger, an' when you hook one you best hoss him in fast as ever or off he goes. It's one thin' I don't like about this hole, you can't never tell just what will take holt an' what you ain't fixed for is what most like will come. What I most like is to know what you're after and then fix for 'em.

"Say," he exclaimed, "there was a feller stoppin' over at Doane's house last season and he fished all over here. He had a pole bout like a straw an' long as ever. One day he took two good trout down by the gravel bed below. He had 'em when I got to him. Gosh I don't know how he done it—he used feathers, flies he called 'em, an' no worm on 'em.

He didn't take no more after I got there. He was a dude, all togged up, an' he took a callin' me 'buckskin,' what for I don't know but it made me mad and to get square, when he put his basket down, I watched my chance and slipped two 'catties' in an' took out his trout an' lit out for home lickity split. Gosh but I bet he was mad. I never seen him but once more and he was on one side of the creek an' I was on the other an' I took care to stay there. He said he had some hooks I could have if I would wade across but I told him I was delicate and afraid I'd take cold, he, he." So the boy rambled on, the man taking many cues from the way in which he managed his rig and how he adjusted bait, and when time for quitting came the boy had the best string. "On'y cause I had the better hook," he said, "an' know better where to fish. You can do jes' as well next time, cause you'll know, an' say, if you'll tell me when you will come again I'll bring you one of my hooks and you will have better luck."

THE sun had gone down behind the hills as the man went back to his abode. He was learning a lesson. Never had he spent so gladsome an afternoon since his boyhood days. In the boy he saw a reflection of himself at that period in life but the boy had a touch about him which he felt he never possessed. The real soulfulness of the game seemed to him to be that no matter what the specimen taken the boy was gloating over it and, as he afterward told him, "Why shouldn't I love 'em, we've growed up together in the neighborhood, an' I bet no fancy fish you know of will beat some of the common kind, as you call 'em, an' I'll show you some day." And so the man went home that night with happy thoughts and, as he had not done for many weary months, wrapped the drapery of his couch about him and

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FIELD TRIALS AT PINEHURST

(CONTINUED FROM PAGE 221)

his dogs so as to compare their peculiar merits accurately and arrived at conclusions apparent to all. The trial started its open stake with Wastica owned and handled by Jay V. Hall, and Peggy Montrose, owned and handled by R. K. Armstrong, as the first brace. Wastica slowed up a good deal towards the end of the heat. She pointed in a swamp and found nothing, and did the same up on the hill later. She, however, did not hold either point long. She was fairly wide and fast, but did not have much class, nor apparently, much endurance. Peggy went wide enough for this wooded country and seemed to be hunting all the time, was quite fast and had a good deal more class than Wastica. Neither dog, however, found birds.

The next brace was Stylish Palmetto, owned and handled by R. K. Armstrong, and Dolly Patch, owned and handled by C. Blow. Palmetto was a good going dog; but not so wide as Mr. Armstrong's other dogs. He had good speed and a nice way of going. It was raining pretty hard when these dogs were down, but Dolly got out wider than Palmetto and kept out in good shape, but wasn't so fast. Once or twice she messed around on a trail for some time. Neither of the dogs found birds.

The third brace was Dolly Peach Blossom, owned and handled by Mr. Hall, and John Brinkin's Jack owned by A. P. Peu and handled by Mr. Armstrong. Dolly is a nice going bitch, with good speed. She found no birds, Jack found a covey which had been flushed. Jack is a very classy dog; had plenty of speed and range; made a good find at the head of a branch and when the birds were flushed he snapped up two singles. He ran a perfect heat, considering the country he was handled over.

The fourth brace was Sunkist, owned by Jay Hall, handled by Armstrong and Gyp, owned and handled by Ed Fry. These dogs had the best country run over up to this time. The first part of the heat was through the woods, but the last part was a nice open country on the Pine Knot farm. Considering this, neither dog went as wide as it should. Sunkist had a nice way of going; plenty of speed. Gyp had no speed nor range.

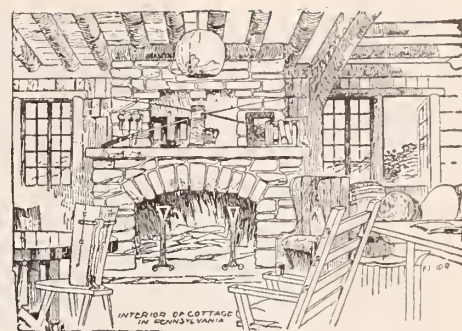
The last brace was put down on the Pine Knot farm, a great big country, and was Crocker's Ben Sport, owned and handled by Mr. Crocker, and Cute B, owned by Doctor Brown and handled by Tom Nailes. Both dogs showed splendid speed and range, and it was a great pleasure to watch them. Cute snapped up a point on the hill half a mile from the handlers and judges. The judges did not get to her in time to see whether she flushed the birds or made a false point. Ben Sport ran a good going race. Cute, after making the find on the hill pointed a couple of times more, but no birds were developed. At this point John Brinkin's Jack, Cute B and Ben Sport were the three outstanding dogs in the order named. Peggy Montrose, Sunkist and Dolly Patch were the next in order. The judges announced that they would not need the next day Wastica,

Stylish Palmetto, Dolly Peach Blossom or Gyp.

ON Saturday morning the first brace to go down was Blow's Rose, owned and handled by Mr. Blow, and Frank B., owned by Doctor Brown and handled by Tom Nailes. Neither dog showed well, and it was quite evident that Frank B. was out of condition.

The second brace was Silver Lining, owned by J. P. Dunn and handled by Armstrong, and Coveycot Jessica, owned and handled by Mr. H. A. J. Wilkens. Silver Lining is a wonderful dog; lots of style, speed and range, but Jessica was not his equal. She was handicapped, to be sure, by the fact that Mr. Wilkens handled on foot which made it necessary to hold up Silver Lining once or twice. The control of Mr. Armstrong's dogs makes this more possible, however, than with most handlers. Neither of the dogs found birds. The second series brought out Cute and Sunkist. Cute had something the best of this and seemed to be picking out the likely places for birds, although they both did well. The next brace in the second series was Dolly Patch and Peggy Montrose. Neither of these dogs showed up well enough to be carried any further. Crocker's Ben Sport and Silver Lining came next, and both of these dogs ran a splendid race. In coming through the woods they were found on point in a swale. It was hard to tell which had the birds, although they were a little nearer Silver Lining. Ben Sport made a point, but nothing was found, in a swale where the singles dropped. He afterwards held a point for a few minutes on a side hill some distance off, but no birds were found. The judges announced then that John Brinkin's Jack would be awarded first, and that Cute B and Ben Sport would be run to see which would run against Silver Lining. The party then had lunch and moved in near town. Cute and Ben Sport were put down and Ben Sport had rather the better of it. Cute ran a race through a bare orchard all by herself, but Ben Sport kept hunting. Cute made one point; nothing was raised. Ben Sport made a covey find. The first two prizes of the membership stake were then run, and just before dark Ben Sport and Silver Lining were put down. They both ran a splendid heat. Ben Sport kept up his speed and range in good shape, especially considering how hard he had been run. Silver Lining found birds and handled them in good shape. His bird work was snappy and his control excellent. The judges then announced that first went to John Brinkin's Jack, second to Silver Lining, third to Crocker's Ben Sport, and fourth to Cute B.

For a number of years Field Trials were dominated by the professional element, always inclined to the wide ranging, rather reckless going dog, at the present time things have largely changed and the dogs that won at the Pinehurst trials this year were those that displayed an intelligence in searching the likely spots which is commonly referred to as bird sense.



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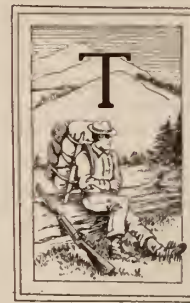
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TWO species of water-loving hares are found in the southern United States, *Lepus palustris* and *L. aquaticus*. The former is about the size of the common gray rabbit (*Lepus sylvaticus*); the latter, which appears to be somewhat more western in its distribution, about as large as the

varying hare, *L. americanus*. The first named, the marsh hare, has been observed on the Atlantic coast as far north as South Carolina, but will very likely be found to range northward as far as southeastern Virginia. It seems to occur along the whole southern coast, at least as far as Vera Cruz, Mexico, and the opinion is expressed that it may exist along the Mexican coast from Texas to Yucatan. It has also been found inland, in swamps and along streams as far north as southern Illinois. The habitat of *L. aquaticus* is from Alabama west, through Mississippi, Louisiana, Arkansas and Texas. It has also been taken in southeastern Mexico and Yucatan. The range of this species also extends inland, and it is abundant in southern Illinois, near Mount Carmel and Cairo.

The marsh hare is slightly smaller than the gray rabbit; it has shorter ears; its eyes are one-third smaller than those of *L. sylvaticus*. The body is proportionately heavier, and the legs shorter than in that species. The feet are sparsely clothed with hair. These are the most obvious physical differences between the two species. The home of the marsh hare is in swamps and low wet ground along the coast, or on the borders of streams. It is abundant near the rice swamps of Georgia and in the low, muddy meadows of islands along the coast. It is rarely or never found on the high, dry land far from water.

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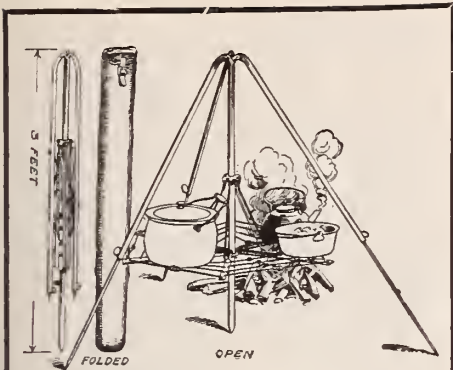
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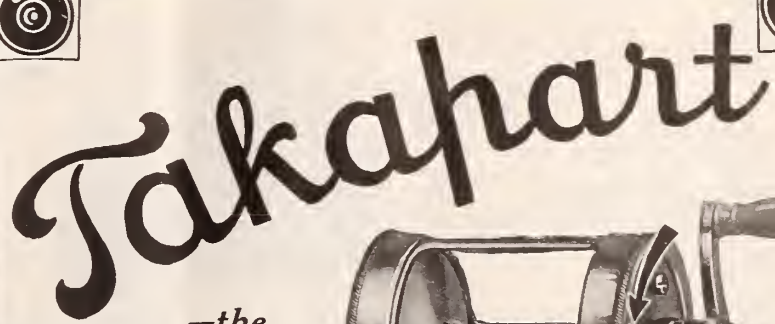
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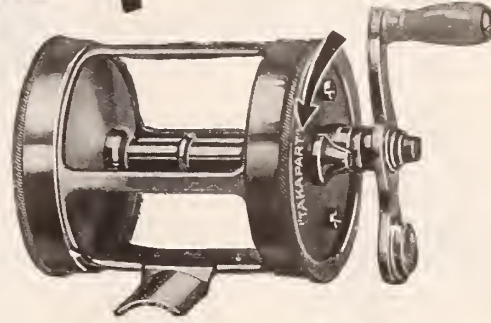
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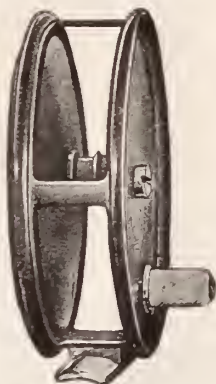
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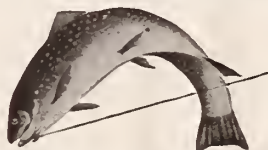
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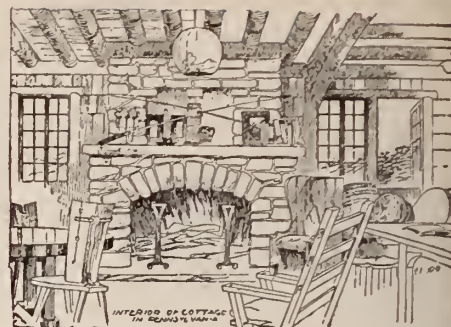
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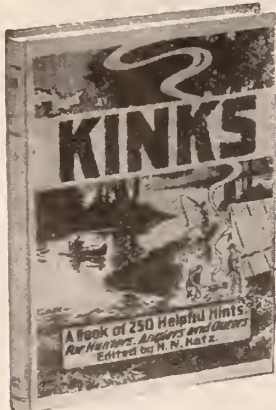
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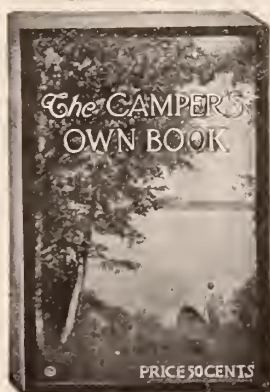
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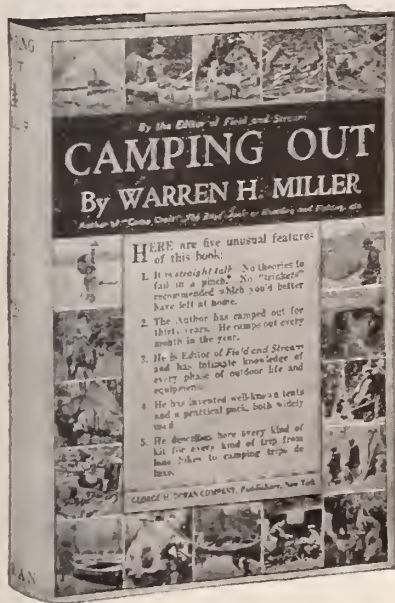
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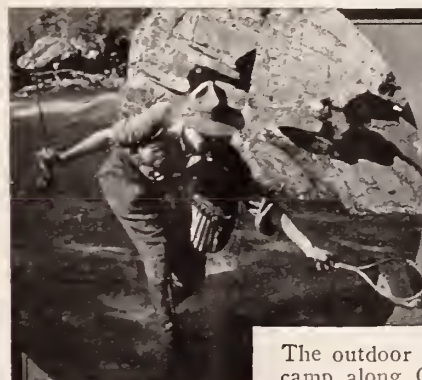
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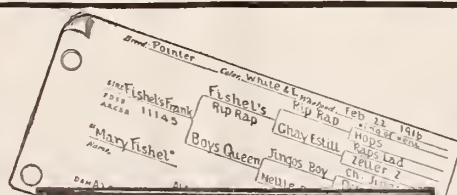
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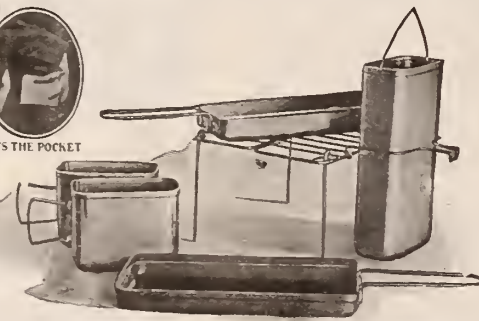
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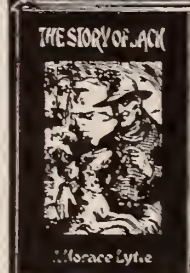
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Of all the hooks on Africa, this is the most delightful. It sweeps aside the staple African story which concerns itself only with rhinos, lions, and native guides, and discovers a new Africa, simply by finding the real one. Home-life which one does not associate with Africa, is told of interestingly.

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In a canoe he paddled away into the wilderness from the Hudson Bay post. He had his orders to bring back a renegade Indian to justice. Painfully, slowly, on and on he pushed his way along the Trail, with its grim terrors of the North and giant vistas of snow country.

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STATEMENT OF THE OWNERSHIP, MANAGEMENT, CIRCULATION, ETC., REQUIRED BY THE ACT OF CONGRESS OF AUGUST 24, 1912,

of Forest and Stream, published monthly at New York, N. Y., for April 1, 1919.
 State of New York,
 County of New York,

ss.:
 Before me, a Notary Public, in and for the State and county aforesaid, personally appeared J. T. Wood, who, having been duly sworn according to law, deposes and says that he is the Business Manager of the *Forest and Stream* and that the following is, to the best of his knowledge and belief, a true statement of the ownership, management (and if a daily paper, the circulation), etc., of the aforesaid publication for the date shown in the above caption, required by the Act of August 24, 1912, embodied in section 443, Postal Laws and Regulations, printed on the reverse of this form, to wit:

1. That the names and addresses of the publisher, editor, managing editor, and business managers are:

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Editor, William Bruette, 9 East 40th St., N. Y. City.

Managing Editor, William Bruette, 9 East 40th St., N. Y. City.

Business Managers, J. T. Wood, 9 East 40th St., N. Y. City.

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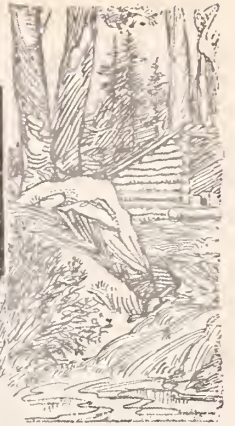




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FOREST AND STREAM

ROD AND GUN



HUNTING ON THE UPPER KLUTLAN

INTO THE ROCK FASTNESS ALONG THE ALASKA-YUKON BOUNDARY WHERE SHEEP RANGE AMONG THE GLACIERS AND CARIBOU BROWSE IN A LAND OF PRIMITIVE GRANDEUR

By LEE MIGHELL

FAR up near the source of the Klutlan on the Alaska-Yukon boundary, in a little one-roomed log cabin lived Erickson, the prospector, and his wife. Erickson was a lean, awkward, hard-working man, simple, honest and inaccurate. His allegations of facts lacked as much of verification as did his dreams of great mineral wealth fail of realization. Yet, knowing Erickson, no one could question his veracity. His wife, an auburn-haired, portly young woman, wore a masculine garb several sizes too small for her. Erickson did not quarrel with his neighbors, nor did Mrs. Erickson, although red-headed, hurl brickbats and Irish epithets over the back yard fence. They did not perform any of those neighborly acts which we of the city can hear rehearsed each morning in the police court, for a visit to their nearest neighbor would have caused Mr. and Mrs. Erickson a little journey of one hundred and fifty miles.

But in Central Alaska one hundred and fifty miles is not far and it was on just such a journey that Erickson had already started when on a frosty September morning, while acting as the advance scout for our hunting expedition, I met him, his old sorrel horse, and four malamutes coming down the river bar some three or four miles from his cabin.

He did not express joy at seeing

another human being, but his actions betrayed true hospitality for he immediately abandoned his plans, turned his horse about and expressed a desire to spend a day in company with me, his stranger friend and I was much gratified.

As we travelled back toward his cabin he inquired as to the location of our camp, the members of our party, what game we had, and our plans for the future. At this time I had killed none of the five rams which my Alaska-Yukon license permitted and which I later secured and when I explained to him that I had not yet had a shot at a ram his sympathy was at once aroused and pointing to a flock of six or eight sheep which we could see on a mountain side across the river bar from his cabin he said,

"Those are rams. In three hours you will have the best head in the bunch. I have been after sheep many times and never came back empty-handed." One of the sheep had taken its station above and apart from the others and I was convinced that it at least was a ram and was acting as a sentinel for the others. The distance however, was too great to distinguish the horns even with the aid of my powerful glasses. Erickson was very insistent that the entire band were rams and his positive assertions gave me much enthusiasm to begin the stalk.

On reaching the cabin Mrs. Erickson, whose hospitality was hardly surpassed by that of her husband, hastily prepared a light lunch and a cup of tea. All the dogs, which included the four I met on

the bar and four more left as protection for Mrs. Erickson, were securely tied to staves about the cabin, but the old red horse was released to forage for himself and no sooner had we seated ourselves about the little table in the center of the room when our sorrel friend bolted through the open door. In answer to his whinnying request his humane and affectionate owner immediately arose from the table, stepped to the carcass of a caribou hanging on the side wall, cut off a pound or two of raw meat and passed it up to the old pack horse. It



Lee Mighell and the Lord of the caribou herd which he shot on the Klutlan

was eaten in less time than it took him to turn around and go out of the door.

COMMENTING the next day on this carnivorous horse Capt. Hubrick, our guide, told of a party of prospectors who found themselves late in the fall of 1914 at a new mining camp on the west coast of Cook's Inlet possessed of fifteen good horses and no horse feed. In the spring their horses would be worth four hundred dollars each. At many of the stampedes horse rental was three dollars per hour. The snow fall at Cook's Inlet is heavy. Feed was impossible to secure. There was nothing to do but to pull the shoes from the horse's feet and see if they could rustle a living along with the moose. Snow was soon too deep for the horses to paw for moss and the branches of the young willows did not contain sufficient nourishment to prevent a rapid loss of weight and strength. The kind-hearted miners seeing their dumb friends gradually starving to death would occasionally pass out

rear of the mountain intending to get above them before they were disturbed. Ten days of constant travel had somewhat hardened my muscles and I had a very good opinion of my walking ability, but that little jaunt of five or six miles around the base of the mountain to a gorge that we proposed to climb was executed by the miner in such double quick time that I was badly fatigued before the real work began. Sheep hunting is usually enjoyed among the perpetual snows and glacier ices of the lofty mountain tops, but nevertheless the hunter does not wear a fur overcoat on such a hunt.

On this occasion I suggested a five minute rest as we were about to begin the climb and immediately took advantage of the opportunity to shed all extra clothing. Taking off my hunting undershirt I put it and my cap in the coat tail pocket of my coat and then cached them all on a rock near by. With nothing but undersuit, pants and shoes for wearing apparel, and nothing to carry but gun and camera I was ready to start for the

sand feet to a bed of jagged rocks.

It seemed but a second to cross it and Erickson with his rubber packs went swiftly across. I started to follow, but either my hobs were dull or my footing not so well chosen for I had not advanced more than five yards when my feet shot out from under me and I started like a bullet for the bottom. Sixty seconds of continued progress would have dashed me in pieces on the rocks below, but Erickson had a good footing on the rocks of the other side and the life line held and gradually swung me to the edge of the rock moraine. In two minutes I had climbed to his side, badly frightened, an unjured, but more cautious man.

WHILE I stood there in thankful attitude at having escaped an undesirable and untimely end my attention was suddenly directed to the mountain side across the deep valley that lay behind us. On a small flat space near its top and almost at our own elevation, perhaps a mile away, we could see white objects moving about. I reached for my glasses in Erickson's hand and beheld one of the most fascinating scenes that the wilderness has ever disclosed to me. Two powerful rams were engaged in mortal combat, while a single ewe stood by, apparently disinterested as to which should be her Lord and Master. The comparatively flat space on which they fought did not appear to us much larger than a good sized room. They would each back off as far as the cliff would permit and then go forward to the collision with a run and jump. As their bodies rebounded from the blow it did not appear that each was able to acquire a sufficient momentum to give him a decisive victory. Slowly they would withdraw, rest for three or four minutes, and then at exactly the same second rush forward once more.

We watched for twenty minutes, taking turns at the use of the single pair of glasses and a boxing match between champions could not have been more absorbing. At last one of the contestants manoeuvred into such a position that his next blow pushed his antagonist over the cliff. He rolled, then tumbled and did not gain his footing for fifty feet or more. It looked as if the fight was settled, but to our surprise the apparently vanquished ram arose, shook himself and then slowly and deliberately began climbing back to his former position on the field of battle.

The other ram having no intention of losing the advantage gained came at him with a rush before he was fairly on the ledge and then occurred one of the most clever movements that I have ever heard of wild animals exercising. Instead of meeting his on-rushing opponent in the same give and take manner he had always heretofore done he suddenly sidestepped the collision at the same time dropping his head closely to the ground. The result was that the charging ram went precipitously over the brink. More than one complete summer-sault he turned and often seemed to fall for ten to twenty feet at a time.

When he came to a stop he had fallen a hundred feet or more. That he was badly bruised was evident from the fact



Crossing a rock moraine on the way to Erickson's cabin

a crust of bread or a little table refuse so that the poor horses soon learned to stand around and wait for a shack door to open when they would all make a grand rush to see which could get the "hand out" that might be forthcoming.

It happened that fall that the hunting parties had greatly overstocked the camp with winter meat so it occurred to the miners to divide the supply with the horses outside. Each day a large kettle full was boiled at an open fire in the camp and the horses soon learned when, where and what their daily ration would be and each day they would crowd around the fire unwilling to wait for the cooking process to be completed. The result was that when feed was secured in the spring eight of the horses had survived and were soon brought back to normal weight and strength again.

AFTER our lunch was over Erickson and I started after the rams. They were no longer in sight, but we were sure they could not have gone far in a half hour's time. Knowing that it would be useless to approach them from directly below we swung around to the

top. Erickson carried his coat in the form of a pack, a life line of one hundred feet of heavy sash cord, together with my glasses and an old rifle.

We adopted the plan of climbing five minutes and then resting two but it soon took me seven minutes to make the distance that Erickson made in five so he was the only one who got much advantage from our system. We proceeded steadily for two hours using both hands and feet as we climbed from rock to rock. When well toward the top I conceived the idea of putting the life line in operation and thereby keeping my companion within reach. We had proceeded but a short distance, each tied to an end of the rope, when the wisdom of its use was suddenly demonstrated. Near the top of the mountain and directly in our path as we were circling for a place to ascend appeared a narrow but precipitous glacier. Unless one looked down it did not appear dangerous for it was not more than fifty feet wide and was bordered on both sides with substantial rock moraines, but its surface was of hard, smooth ice and it led down at a frightful angle for a distance of at least two thou-

that after slowing regaining a standing position he made no effort to climb the mountain. When last we saw them his opponent was making off with the Lady Love and he was still unmoved. Brains had won the battle, although I have often questioned if a sheep had brains.

IN five minutes we were at the mountain top which from below appeared as a point, but which when reached was not smaller than a good sized farm. While I rested to regain my breath and steady my nerves for shooting, Erickson stealthily advanced to reconnoitre. He returned presently with the information that no sheep were in sight below. We then circled first to the right and then to the left ever keeping a sharp look out below, but there was nothing doing. As we could observe for miles the mountains to our rear we could not believe that the rams had got past us, but we were unable to account for their disappearance.

Thinking that they might be sleeping in the sun, below one of the numerous shoulders of the mountain, I stepped forward to the edge and fired three shots from my young mountain cannon. The echoes sounded and resounded so that it seemed as if no living thing for miles could have failed to have taken notice. We waited twenty minutes, but all was still as death, except for the call of raven or two which at the sound of the hunter's gun is always soon present to participate at the feast. The wind was blowing across the ice and snow and to my body scarcely covered with sweaty clothes it did not seem like the gentle breezes of summer.

Discouraged and non-plussed we started by a shorter cut for the bottom of the gorge where my extra clothes were left and had gone about half way down when suddenly I looked to one side across a small ravine and there huddled in a frightened manner under a cliff of rock scarcely one hundred yards away was a flock of eight or ten ewes and lambs. Not a ram in the lot! Again I had spent a half day stalking game I did not want. Erickson was for taking a little mutton back with us, but when I told him that our camp needed no meat and that I would not be a party to a killing he let them go in peace. Our caravan arrived before dark and my evening report, though interesting, was to me unsatisfactory. In fact, I was almost discouraged and not until the second day thereafter when I killed the Monarch of



Mike, Fritz and Kate

Sheep Lick Mountain did my courage and confidence fully came back to me.

OUR party spent the next two days on a side trip to Sheep Lick in demonstrating the incorrectness of some of Erickson's well-intentioned advice as to the location of moose, but immediately upon our return we left our friend and his cabin for the game fields of Western Yukon. The prospector led us up on the hills that lay in the rear of his little mountain home and with an indefinite wave of the hand said, "The trail leads off there. After you have gone fifteen miles you will strike the ford in the Generc." It was raining slowly as we started, but by the time we had made three or four miles the sky was clear, but not so the trail for in the shifting sand of that rolling elevated plateau the least signs of former travel could not be found.

It was often difficult for our two wranglers to keep sixteen pack horses constantly moving in single file for one was compelled to lead and the other follow the rear of the line. It, therefore, often fell to the lot of the hunters as well as to our guide and cook to travel in the train. In the far North the customary way of keeping the train moving is to twist the tail of the nearest horse, hurl rocks at the next one or two and profanity at the others. Our wranglers knew their business and were possessed of a strong and extensive vocabulary. As we started that morning I fell in between Cyclone

and Dynamite to expedite a little the progress of our outfit. My position was not so perilous as the names of the horses would indicate.

We had not proceeded far when a call of "Caribou! caribou!" came down the line. Looking to my right I beheld my first band of caribou. There were only four or five in the company, which was lead by a young bull whose horns were hardly larger than those of the cows with whom he was associating. The sight sent a thrill through my whole system for they were traveling along the top of a range of ground swells which silhouetted their bodies against the sky line in a most picturesque manner. The fact that most impressed me was the rapidity with which they travelled by their easy rangey trot.

A few minutes later my bunk partner, Hon. Joseph Browder, of Fulton, Kentucky, came riding back on little Billikens and said, "Lee, we are in a good game country. Jump on this horse and ride in advance, you are liable to get a shot." Such is the generous courtesy which, with whiskey, fast horses and beautiful women, has made Kentucky famous among her sister states. I cantered a half mile ahead where I found my Nashville friends, William T. Young and Arthur J. Dyer. The former comes to the call of "Bull Moose Bill" and the latter to that of "Grizzly Jim."

IT was but a few minutes after I joined the advance guard that we observed a half mile to our right another band of caribou. It was a fair-sized herd, but after looking it over carefully through our glasses we were about to decide that there were no bulls in it with horns that would justify a killing, when I observed following along in their rear, but quite apart from the rest, an enormous bull with horns that far surpassed the others. My companions, who had come three thousand miles in search of game and one of whom had never killed a caribou, then turned to me and said, "Lee, it is your turn, you do the stalking and we from this ridge here will take the moving picture." "Bill" finally decided to accompany me to render any assistance that might prove to be necessary, so while the entire caravan of six men, sixteen horses and three dogs drew up on the ridge to act as our gallery "Bill" and I began the interesting stalk.

Between us and the big bull lay two sand ridges or ground swells three to

(CONTINUED ON PAGE 318)



A herd of caribou was just topping the range, silhouetted against the skyline, with an enormous bull following in the rear

THE GREAT STORM AT ORTLEY'S

A TALE OF OLD DAYS ON BARNEGAT BAY WHEN AUTUMN STORMS BROUGHT HIGH TIDES OVER THE MARSHES AND HIGH HOPES IN THE HEARTS OF TRUE SPORTSMEN

By WIDGEON

MY little grandson and namesake, five years old, had been our guest of honor at dinner, on Grandma's invitation. Seated between us at the table, he had proved himself a valiant "Trencherman," and as smiling Victoria brought on the various courses, had conducted himself like a gentleman, from "soup to nuts."

After dinner, as I sat in my easy chair, the handsome little fellow, of whom I am exceedingly proud, climbed up in my lap, and snuggling up to me said: "Grandad! tell me a story. . . What about? Why duck shooting." So putting my arm around him I drew him closer, as I had often held his father and uncle in years gone by. That dearly loved uncle and chum, who had joined the colors to fight the "Hun" at his country's first call to arms, and in whose honor the little fellow had insisted on having an officer's uniform made, "Just like Uncle Cecil's," which he wore with pride and soldierly bearing on all state occasions.

So breathing a silent prayer for my brave boy so far away, I cuddled my little namesake still closer, and told him the story of the "Great Storm" that occurred so many years ago.

IT was in the year 1885. It had been a very mild autumn, and was nearing Thanksgiving Day, and as yet there had been no cold weather, nor heavy storms. The Clan had held many consultations, and were awaiting a break in the weather, before making their annual trip to Ortley's.

A dry northeaster had been blowing for days, the moon was full, and for several nights had been encircled by a halo of remarkable size and brilliancy, which the weather wise ones claimed portended a storm of great severity. A council of the Clan was held on Sunday afternoon, and Andy, the Squire and I voted to start on Monday morning very early.

Jake insisted there would be no storm; that it was simply an easterly blow, and would amount to nothing, but the three of us decided to go. We telegraphed to Dave in the city, to join us, and made our preparations. On Monday morning the wind was blowing hard from the same old quarter, and it looked very stormy.



A valiant "Trencherman," fit grandson of a worthy sportsman

This was the Squire's first duck shooting trip, and he was on hand early, in great good spirits, and eager to be off.

On reaching Hazlet we found Andy there, but Jake did not put in an appearance, and when the mail train from the city stopped at the station, Dave failed to appear also, so we boarded the train, and away, feeling rather blue over the desertion of our friends. As the day advanced the wind increased in strength, and when we reached Point Pleasant, was blowing a gale. Here we changed cars, and were presently off down towards Squan Beach.

Soon after leaving Bay Head the train slowed down and we found that the previous high tide had washed the road bed badly in places, so we were forced to go very slowly and arrived at Ortley's much behind time. As we descended

from the train the wind was blowing a hurricane, and the ocean was an awe inspiring, and astounding spectacle.

The tide was coming in again, and the waves ran mountain high, while the dark storm clouds hung low and menacing. The giant combers would come rushing in, and as they curled to break with thundering crash upon the beach, the furious gusts of wind would snatch their crests, and blow them far inland, to fall like showers. Great columns of water would shoot up in the air fifty feet or more like geysers; the roar of the surf was deafening, and still no rain had fallen. Peter Johnson met us at the station, with the old team of mules (that he averred were in the Ark with Noah).

Soon our luggage was loaded in the wagon, and in a short time we were at the old Ortley house, and had paid our respects to Mrs. Johnson. In short order we changed to shooting togs, then accompanied by Peter, made our way to the boat house, to get out our boats. On the way we questioned him as to the shooting prospects. He said there were not many large ducks, but that he had never seen so many dippers (Buffle Heads) in all his life, the bay was full of them.

With Peter's help the boats were soon in the water, the decoy racks on, then the decoys were quickly looked over, placed in the racks and we were ready.

As usually happens at the beginning of a northeaster, the tide was low but rising, and on Peter's advice, we decided to try the Crab Pond for the evening shooting, so we started in that direction, and just then a large flock of dippers, fully a hundred of them, came across the meadow from Muskrat Creek, and dropped in the cove, just out from the little landing; here they sat for a few moments, then they were away, up the creek for the Crab Pond, and we followed after.

WE were rowing almost directly to windward, and in that gale it was hard pulling even for Andy and me, but the Squire, after a long struggle, gave up in despair and drifted back to the landing, where Peter took pity on him and offered aid.

Taking the oars, from the Squire who then seated himself in the stern of the "Box," by



Ortley's as it stands today, the scene of many a gathering of the Clan

exerting his giant strength, he came up the creek like a motor-boat, and in spite of our heroic efforts, passed Andy and me as if we were standing still, and was at our destination, before we were half way across the pond.

The Squire derisively shouted as he passed us, "Now see me row." Here on the north shore, we put out our decoys, and pulled up our boats, which we quickly covered with duck grass and reeds, then Peter left us, going across the meadow, and wading the creek at the landing.

As I have stated, this was the Squire's first experience in duck shooting, and he had never been in a sneak box before, so he asked for advice as to what he should do, etc. I told him to lie down in his boat, and keep down, and I would tell him when to shoot if any ducks came.

Pretty soon a pair of dippers came into the pond from the south, and working up slowly against the heavy wind, saw our decoys and came in. Just as they were over the outside decoys, I said, "Now!" and Andy and I rose and killed them. At the report of the guns the Squire popped up out of his box and asked, "What you shooting at?" and when he saw the dead ducks he said, "So that's how you do it." Hereafter the Squire sat up and took notice, and he would not lie down again.

After a short wait a single black duck came in. He was shy and after coming almost close enough, paid off a little with the wind, and we up and poured it into him, and sagging off he fell dead near the center of the pond. I sprang from the boat, and started to wade out after him, while the Squire frantically called for me to come back. He was afraid I would get in deep water and be drowned, but the Crab Pond was one of my favorite shooting spots, and I knew every foot of its bottom, having waded it scores of times.

When I brought the duck in, I explained it all to the Squire, and in a few seasons he became fully acquainted with all of the "tricks of the trade." As we sat talking, a flock of sheldrakes came over the meadow from behind us, flying before the wind like bullets, and seeing our decoys, circled and came back to us, giving us a fine shot, and we killed four of them, one of which fell to the Squire, putting him in very good humor. Just as we were about to take up the decoys, a pair of black ducks came in, and heading up to the wind, were about to drop into the decoys, giving us a beautiful shot, and we bagged the pair.

Then with the gale at our backs, we quickly crossed the pond, and were at the landing again, where we fastened our boats securely, put on the hatches and made all "snug" for the tide was rising fast, and the wind blowing harder than ever.

WHEN we reached the house with our nine ducks, we found a new arrival, Mr. John S. Pittenger who had reached the house in our absence, and we made him welcome to our party, as became all true duck hunters.

After a hearty supper we repaired to the sitting room, and pulled our chairs in a half circle before the great fire place, where a splendid fire was burning, which was greatly appreciated after our exposure to the strong wind.

As we sat talking, there came a lull in the gale; for the space of a few seconds, all was still. Then the heavens were rent asunder, and the delayed tempest burst upon us with all its fury, the rain descended in torrents and dashed furiously against the windows. Great limbs were torn from the writhing willow trees and blown away like autumn leaves. Loose bricks from the chimney stack came tumbling down into the fire place, and with a rending crash, the great silver maple at the southwest corner of the house was blown prostrate. The furious wind whirled in the chimney, and blew the smoke and cinders in our faces, the roaring of the hurricane was appalling, and the solid old house shook as with a palsy.

Awed, we listened to the gigantic

triously manipulating singing the while at the top of his voice:

"Rocked in the cradle of the deep,
In peace I lay me down to sleep."

Said Andy through the open door, "Squire stop that racket." Still the old accordion "hehewed." Bang! went one of Andy's boots, but the Squire dodged, and poor innocent Mr. Pittenger, curled up at the back of the bed, got the boot with full force. Bang! went the other boot, to be also stopped by Mr. Pittenger. Then Andy and I arose in our wrath, and dragging the Squire from his bed, belabored him soundly, until he begged for mercy. He said in excuse, that he was sure the tide was rising, and would wash the house away, and he did not want us to be drowned in our sleep like rats in a hole.

Slowly the long night passed, and at last morning came, the wind was still blowing a gale, but the rain had ceased. True to Peter's prediction a great tide had come in, and was still rising, the meadows were all under water, and our



Jim Robbins and his Barnegat Bay ducking punt in action off Sandy Island

warring of the elements and then Peter reverently said, "God help the sailors of any ship that comes on shore tonight." For over an hour those furious gusts of wind raved around the house, shaking it to its very foundations, and the "Banshee" plaintively wailed in the broad chimney, while we sat in subdued silence. Then it settled into a steady gale, and furious driving rain. I have been at Ortle's during many a hard storm, but never one like that.

As we prepared for bed, Peter said, "This will bring in a 'cracking' big tide, and do lots of damage." Andy and I slept together, while the Squire bunked with Mr. Pittenger. The roaring of the storm had lulled me to sleep, and I was dreaming of great flocks of ducks passing over, when I was suddenly awakened by a great clamor. As I sat up in bed, the air was filled with the din.

It was the Squire, being unable to get to sleep, under the strange conditions, and surroundings, his roving eyes had discovered an old accordion on a shelf beside the bed, this he was indus-

trously manipulating singing the while at the top of his voice. As it grew lighter, we took stock of our surroundings.

The house with the exception of a few bricks from the chimney tops, and a few panes of glass blown in, was intact, but the great willow trees, a land mark for many years, were badly damaged; their great limbs were strewn to the landing and beyond, and they never recovered from the ravages of that storm.

AFTER breakfast, Peter took the Squire back to the Crab Pond, and fixed him in a tall reed bunch, near the northern outlet, while Andy and I started out for the best spot we could find above water. We finally decided on Gabes Point. This point was slightly higher than the others, and had a thicket of marsh elders at the shore edge, so we decided to place our sneak boxes in these marsh elders, which would break the seas. Putting out a few decoys, we were ready and soon a number of ducks began to fly.

(CONTINUED ON PAGE 312)

A SEMINOLE
SQUAW.A SEMINOLE
HEADMAN.

In the Realm of the Palm Hammocks

EGRET and
HER NEST.

By W. LIVINGSTON LARNED

Additional Adventures at Chokoloskee, including an Introduction to Several Undesirable Citizens. Hendry has a talk with a Native and the Egret Mystery is Again Uncovered. The Scent Leads to Alligator Bay. Wherein the Reader is Permitted to Fraternize with Charlie Tigertail. A Dinner That Was Tied to a Stake. Fishing and Hunting Plans up Turner's River.

THAT was a never-to-be-forgotten experience for John, Jr.—the visit to the Holy Roller Church on Chokoloskee. So deeply engrossed were the prayer-makers that they did not notice the two figures in the shadow of the little doorway. Once a muck-colored native passed them and gave the intruders a sharp, quick glance of suspicion, but Hendry, in his rough togs and with his weathered face, might well have been of the clan. And the boy snuggled behind him, still deeper in the shadows.

The bare room, with its rough wooden benches, seethed with primitive fanaticism. Men and women, in the mad passion of their creed, beat their breasts, crawled upon the floor, ran hither and thither between the seats, or, standing strangely erect, with heads held back, groaned, howled, supplicated and shouted, as the mood took possession of them.

A tiny oil lamp flickered fitfully over all, swinging from the rafters. There seemed no system—no set rule of worship. Individually they worshipped and collectively they made a burlesque of divine salutation. It was at once a hideous and a repulsive sight to John, whose

BLACK BASS
TAKING THE BAIT.

memory of God went back to the peace and quiet of his homeland chapels. The night fairly rocked and eddied with the uproar. Men with strange set faces and glaring eyes rolled almost to the door in paroxysms of pain. What they did—hurt them! Dust spurted up from the board floor and hung in a hazy cloud, like stratas of thick mist. It was quite the most incoherent affair that mortal ever gazed upon.

"We go—they soon come out. No like strangers" whispered Hendry, who was experienced enough to be discreet, "West Indies nigger also Holy Roller."

John was quite willing to go. He had seen enough. And when they had tiptoed away, to walk back to the boat, along the shell-covered beach, the stars—a fantastic mosaic of them over the calm bay—were more friendly than before.

And Hendry went on to explain, that, on the morrow, these same men would be their normal selves again—hunting and fishing. The women and girls would once more be lost in the tractless wilds of the Chokoloskee region, until the old bell in the tower called them from their seclusion at an appointed hour.

"Mighty good fishermen—no good religion," was Hendry's sole comment. Mr. King was asleep upon their return and they did not disturb him, but covered up in their blankets and tried to forget all they had witnessed.

Once during the night the guide gave John a punch in the ribs, partially awakening him. "You have bad dream," said he, "make talk in sleep—kick off blankets—you think you Holy Roller!"

ON the morning of the thirty-first Mr. King made it known that a little trip up Turner's River was necessary as he was scheduled to make certain examinations of the country, draw maps and look to the interests of the Tamiami proposition. Following that, and upon securing a guide, they would go up Chevelier Bay on a kindred expedition.

We have erroneously confused the mind of the reader as to Chokoloskee Bay and Chevelier Bay, referring, in a previous chapter, to Chokoloskee island as being actually situated in the latter body

of water. At this time, we wish to make it clear that there are chains of these bays near the Thousand Island group, and that Chevelier is to the southward. There is a common bond between the various unique elements of the country, however—the same endless procession of little keys, with their mangrove borders and the further reaches of cypress and swamp area.

They were stirring at dawn, as Mr. King wished to make an early start.

"We have had a great deal of play lately," explained Mr. King to his son, "and now there must be some practical work." He pointed to the folded chart book in his side pocket.

"I think I'd rather stay here, around Chokoloskee and fish," pleaded John, "Hendry says that they have been catching lots of bass. And there's some sport hooking the right kind of a bass."

Mr. King immediately discouraged this. He did not like the looks of things on the island and Hendry had one experience that only increased this natural and well-founded suspicion.

While bringing supplies down to the boat, a man accosted the guide. He was the very scum of the neighborhood; unshaven, polyglot and bad of eye. From all Hendry could judge the fellow had not bathed in years. In his belt, which sagged heavily about his thin waist, there was thrust a hunting knife of almost piratical appearance.

Hendry went on to explain that this tough customer insisted the guide buy, for spot cash, a squatter's claim on Pavilion Key, going into exaggerated detail as to its beauty, value, and future worth. And when Hendry refused to even consider the offer, there was "bad blood." The Chokoloskee outcast wanted to know why he turned down such a flattering bargain. Would he consider fifty dollars for the claim? No. Then, how about thirty? Finally, according to the guide, this insistent stranger asked Hendry to "show him what he had."

It seemed to be a piece of rough strategy to discover just what Hendry or his associates carried along with them in the way of hard cash. That it failed was fruitful of no infinite amount of satisfaction on the part of our three adven-

turers, for a feeling of antagonism had been aroused in one direction, at least.

Several indians had arrived at Smallwood's trading post as they went up for a few things to use during the Turner's River jaunt, and considerable interest was attached to watching them at their dicker. Smallwood, of course, knew the Seminoles as he knew the bay. He could match them at their best, and soon enough, the skins of coon, otter and alligator had been absorbed by the great pile at the rear of the store, and lazy indians were carrying meal, ammunition and some canned goods down to a reedy part of the shore.

Smallwood was more interested in his horse than in trade, however. It was known to be the only animal of its kind in all the Chokoloskee district. The storekeeper had brought it up to the island in some crude way, and it was used further up the bay as a means of transporting fruit from the interior, a primitive track having been cut through the jungle. Smallwood was an enigma. Big, brutal heavy-handed with the humans around him, he loved the horse. With one hand he would cuff a shiftless native and with the other stroke the head of that weary old horse, tenderly, lovingly.

In a dusty, dirty glass counter case, Mr. King found several new trolling spoons adapted to the locality and he purchased two of these for John. They were also in need of new lines. More than once, as the three stood in the store,



The Logger-head turtle which provides highly desirable chow

curious, questioning faces peered in at the door—faces that held no suggestion of friendship.

"Which way you fellows going now?" Smallwood inquired.

"Up Turner's," answered Mr. King, promptly.

"Going to fish?"

"Well, our main reason for taking the trip is to survey. You know that Tamiami property terminates not far distant. In any event, I want to study the soil, vegetation and surrounding country."

"I see you are buyin' some spoons." Smallwood insisted, after some reflection.

"We may drop a line overboard going up or coming back. But we needed them, anyway—and you keep a fine stock."

That appeared to please the angular man behind the counter and he volunteered some information.

"I'd advise you to take Chan Youman with you," he said, "it's ugly going up in that territory and of course you folks don't know it. Once you strike the palm hammocks, one passage looks like another. He's here now and you can get him at a fair price for the day. You can give me the check and I'll make it all O. K. with Chan."

Long afterwards, in thinking the episode over, Mr. King was inclined to the belief that Smallwood's idea was not without selfish reasons, peculiarly his own. If a trusted guide went along, their every move would be watched. An eye would be kept on them. And Youman could report to headquarters on his return. It is our desire, in chronicling these minor points of our story, to stress this one vital fact—strangers are not wanted at Chokoloskee. Therefore, it is all the more remarkable that Mr. King and his little party saw it through without far more serious consequences. If you fish or hunt there, go armed with a reason better than sport.

SMALLWOOD had a rough map of the surrounding area and he allowed Hendry to take this, on the promise that it would be returned promptly and



A very beautiful view on Turner's River, in the Chokoloskee Bay district. These picturesque waters abound in fish. Trails, made by padded feet, are to be found ashore. Probably one of the first photographs ever made of this far away place

in good order. As for Captain Youman, he was less offensive than the sixty other inhabitants of the island and its bay shacks. A small, slender, white-haired fellow, fisherman by trade, he behaved himself well and answered the purpose in a highly efficient manner.

It was Youman who quite accidentally fell into one of Hendry's sly traps. In some way the conversation between them turned to egrets, and once again that quiet rumor was circulated concerning Alligator Bay, out from Chevelier—one party had cleaned up three thousand dollars in a single rookery!

"He say to me that how come motor boats so fine," observed Hendry to Mr. King, when they had a moment alone "five, six boats we see last evening at Holy Roller Church dock, they worth lots of money. Maybe egret pay for them with plumes. Cap'n Youman—he wink and grin—like this," and Hendry made a crude attempt to imitate what he had seen.

Thus it may be seen that the travelers were in a constant atmosphere of plume piracy. While at no time were there outward, tangible indications of the practice, nevertheless they knew that it existed—that it was going on in season—that these far places of Chokoloskee and Chevelier were safe haven for men who double-dared the law. No Avery Island game warden edict could touch them. They were safe from interference. No one would dare molest them.

The small boat was put in readiness, with food and tarpaulin, guns and lines, and the glade skiff tied behind. For Mr. King's purpose, Turner's River was the choice, since it was the largest and the most direct. At its mouth, north of Chokoloskee, it was about one-half mile across, and some six feet deep, and lined with the busy, writhing mangroves around the roots of which oy-



A handsome bag of snipe shot on the lower keys

sters grew in great abundance. There were innumerable bars and shoals and oyster reefs, through which Youman guided them with a sure head and hand.

A little over a half mile from the entrance of Turner's, where the river makes a sharp elbow turn, there were two peculiar, glistening, grey shell mountains, bobbing their bald heads above the surrounding green. Mangrove swamps darkened the stream for two and a half miles and then they glided out into a totally different country-prairie ground, somewhat higher than previously seen, although boggy; and vast acreages of palm hammocks. It was bleak, monotonous and strangely still there. John and Hendry both trolled. They caught nothing, however. Later on, when a temporary halt was made, John brought in seven lusty mangrove snappers that he

hooked with dark line and craw-fish bait. Hendry had supplied the special cat-gut leaders, which, when immersed, become well nigh transparent. It was only because the sun had gone behind a mass of clouds and the day was dark, that the boy managed to deceive these shrewd fellows that lurked near the mangrove roots along shore. They ran from six to ten pounds and were beautiful specimens.

Some distance further, after anchoring the larger boat, the glade skiff was brought into play, although the load was rather heavy for it. Youman attended to the poling. They entered a wide, deep slough and after three turns, came almost suddenly upon pine land and the sharply defined characteristics of a pine island.

Smoke was lazily rising from a fire upon the shore and they saw the silhouette of an Indian camp.

"Wonder where they came from and what they're doing?" Youman exclaimed, seemingly surprised "of course, I ain't been up Turner's for a month, but I didn't know Charley Tigertail was headed for Chokoloskee."

Landing was made, for it was at this point that Mr. King wished to cross through to the muck country. There was nothing to it, but to walk directly up to that picturesque group on the shore of the pine island. The reception they received was, at first, sullen and disconcerting.

Charlie Tigertail, a very noted Florida indian, was camped with his family and a meal was being prepared at this unseasonable hour. His young and rather pretty squaw, in wonderful Seminole raiment, stood near one of the limbs that held the square of soiled cloth. But, however, incongruous and uncouth the surroundings and the camp equipment, the mistress of the family was as tidy as a row of pins. The white of her quaint frock was snowy and the elaborately conceived and colored native costume burned brightly in the shadows—vermillion, blue, grey, yellow.

Four good-sized logs were drawn together at their chopped ends, Seminole style and over this steady blaze a big pot simmered. Such remnants of bird, beast and fish as had been killed from time to time were swimming in this pot in a sort of hideous jaundiced gravy that exuded strange odors and impressive greasy bubbles.

The Buck sat, cross-legged, looking neither to the right nor to the left, and near enough to the broth to reach over and dip out liberal portions with his wooden spoon. On either side squatted his children—ugly, wild-eyed little creatures, half animal, who glanced up apprehensively at the party of intruders. The Squaw, unmindful of the presence of others, went about her solemn task of waiting on her lord and master and his brood. For this is Indian table etiquette. The Squaw eats last.

And close to hand, squawking or squealing, as the case might be, was Tigertail's next meal, should necessity force him to devour his traveling pantry. Seminoles, on long hikes or changes of camp, take certain live stock with them

(CONTINUED ON PAGE 302)



Ah, the luxury of a shave in camp when, after many days of cruising, time is had for this gentle sport

IN THE FOOTSTEPS OF NESSMUK

HINTS AND PRACTICAL ADVICE ON THE SUBJECT OF LIGHT CAMPING BY A CAREFUL STUDENT OF THE AUTHOR OF "WOODCRAFT"

By LIEUT. WARREN H. MILLER

BACK about the year 1889, when I was a kid of thirteen and spent most of my time in hunting and fishing, that classic of the outdoors, Nessmuk's "Woodcraft" came out. A copy of it was in my Christmas stocking of '89, and with our tribe of six boys it immediately took rank second to no book but the Bible. The world, and we boys in particular, were waiting for that book, waiting for the man who could preach the lost Indian art of travelling light in the wilderness; of getting away from heavy army tents, cast-iron fry-pans, lumber-sized axes, and farm lanterns; all those unnecessary burdens which did their share to kill the love which is in every man for the life in the open. But, above all, the world was waiting for the man who could write the poetry of life in the woods and at the same time translate it into practical ways and means to live it, close to Nature, in Nature's own way. That man was George W. Sears, "Nessmuk," as the Indians called him.

When Mr. James Lawrence Kearney, one of the enthusiastic readers and contributors of the old FOREST AND STREAM, made the writer the present of that copy of "Woodcraft," in the winter of '89, he opened up for us boys a whole new world of delight in forest dwelling. We had tried the Indian's way, with a teepee and the white man's way, with a heavy wall tent, and had found both cumbersome and unsatisfactory. We hopped on "Woodcraft" with a howl of delight. It was just what we wanted. We built Nessmuk's backlog fire, his shanty tent, his cook range; used his tackle methods; built canvas covered canoes that were nearly as light as his famous "Sairy Gamp." adopted him in fact, as our tutelary divinity. All our camping and cruising for the next three years was done on his system and we all read him with avidity for the literary charm of Nessmuk's work was as much a source of delight as were his practical teachings. Then came a blank of ten years, when all my personal preferences for a life in the open and the companionship of letters were submerged—all but obliterated—in the strenuous work of acquiring an en-



The author ready for a fortnight's trip. Total load thirty-two pounds

gineering education and obtaining a living from it in pioneer engineering work. The Spanish War also intervened, involving a year's service as Ensign in the Navy. But, through it all, I still managed to camp out at least four or five times a year, to keep up my studies in natural history and forestry, and to keep on reading the classics.

At fourteen I was well versed in Latin and Greek and at seventeen I had read the best French and German authors.

IN 1906, the boy of literary tastes who had adopted Nessmuk as a foster-parent, began to write for himself, and to publish his work. As FOREST AND STREAM was the great outdoor paper, a sort of demi-god to us boys, my first outdoor work, was sent to them where it met the fate of many another first manuscript. And so it is not until this late date, that I am at last telling the readers of FOREST AND STREAM the story of how, following in the footsteps of Nessmuk, I developed the system of camping out which resulted later in the book "Camprcraft," which I have always hoped would be the legitimate successor of "Woodcraft." It was developed directly from his teachings, simply bringing them up to date, to agree with modern practice and equipment, as improvements were constantly made by manufacturers of outdoor goods. My own original contributions were, the "Forester" tent, the packsack sleeping bag, a tent stove weighing 2½ lbs. and a new type of cook kit, all of which have become well known and widely adopted.

Nessmuk blazed the trail. Every outdoorsman should read him, today, to get inspiration, the right point of view, the fundamental principles of going light, and in my own books, "Camprcraft" and "Camping Out" I have attempted to bring these principles down to date, following Nessmuk's original lines. They do as he would have done if he were alive today. In this brief article, then, there will be but space to tell of how I developed improvements, strictly my own, leaving description of the balance of progress made by the outdoor world since Nessmuk's time to the books above-mentioned.



Nessmuk shanty tent built by the author when a boy of thirteen

TO begin with the shanty tent. The illustration shows my own, made when a boy of thirteen. The negative from which the print was made is still in my possession, and is now thirty years old. We found it a good tent, but heavy and not sufficiently waterproof, in American drilling, though it will do in eight-ounce duck. Making it over again, I would choose the latter and give it two feet more slope to the roof. However, from it I developed the Forester tent.

The fire-reflecting principle of the shanty tent was good, but only the roof reflected the fire's heat-rays. Why not the sides also? Besides, the shanty tent took too long to set up. Three poles ought to be enough. So I devised a tent with a ridge pole inside, a gambrel roof, and sloping sides that would present a fire-reflecting surface to the camp fire. In eight-ounce duck it weighs six pounds, taking twelve yards of canvas to make. As one needs but little room in the back of the tent and plenty in the front, the floor area is a truncated cone, 8 feet across the base, 7 feet 8 inches on the sides, and two feet across the head. To set up, one cuts a twelve-foot sapling for a ridge pole, and two ten-foot ones for the front shears. Slipping the ridge pole down inside the tent, projecting out behind through a small hole in the rear peak, the two shears are lashed together and the ridge pole rested on them and tied fast, at the front of the tent. To get the gambrel roof, the front edges of the tent are tied to the shear poles at points three feet from the peak, and then the front corners are pegged down, when the tent takes its well-known form of a gambrel roof with sloping sides. This makes it much more roomy for headroom than with flat sides, and is quite as warm.

I used it this way for two years, and then added a hood in front. This hood required considerable practical study. I wanted something that would let in the camp fire heat rays, yet keep out driving rain. I found that the shape shown would do the trick, leaving about three feet of opening from the ground to the bottom of the hood. The peak of the tent should come about five feet six inches high, when properly set up. This tent has been out with me for the last ten years, and is still the favorite, for a camping party of one or two. I have it on the authority of Colonel Whelen and numerous hound-dogs that it is the



Lacing knapsack to mattress to make a sleeping bag

warmest outdoor house in the woods, for, if there is still a hot ember left in the camp fire, its heat is caught and reflected down on the sleepers inside. For mosquito protection I hang a curtain of scrim from the lower edge of the hood to the ground. In Army shelter clothing this tent weighs 4¾ lbs. with hood and everything complete.

ANOTHER development that I have made from the shanty tent of Nessmuk is to retain its original roof and back and make the three sides of scrim netting. This makes a breezy summer tent, weighing 3½ lbs. and is a favorite for beach camping, where poles are hard to find. Two stakes two feet high, are driven into the ground where the rear of the tent is to go, and to them are tied the back-wall, corner grommets of the tent. At the front, two poles 4½ feet high are driven in, and

the front upper corners tied to them and guyed out to pegs in the ground. The sides and front of mosquito netting are then pegged down and the tent stands set up. It has a floor space five feet wide by six feet three inches long, and will sleep two men and a boy easily. I use it extensively, for beach camping and for summer outings in the woods, bass fishing.

For a camp fire in cold weather, Nessmuk's back-log fire cannot be beaten. It takes one hour of chopping to cut the wood for it, with an ordinary camp axe weighing 3 lbs. Five, five-inch logs, three feet long, two stakes of pitch pine or hornbeam for back stakes (because they do not burn through easily) two five-inch logs two feet long for and-irons; and a forestick of a three-inch log, suffice to build the fire. Twenty logs, running from three to five inches, three feet long, will last all night, in three replenishments of six logs each. It is worth while, for the heat and cheer that it gives, and, in a permanent cold-weather camp of a week's duration, I often use it, although for a hunting camp the tent stove is better, as one is too tired to do much chopping after the day's hunt, and the stove uses far less wood.

Nessmuk's log range has been replaced by light wire grates, and is now almost obsolete, except for permanent camps, where its strong, steady heat is a great comfort to the cook. I would use it today if I had a party of six or eight to cook for, but, as a rule, we have developed a system of each camper cooking his own grub and eating when he chooses. As I eat but twice a day in the woods, following the Indian rule, it works out better, particularly when we have tenderfeet along who must have their three square meals—or think they must!

IT is in sleeping equipment that I have had to diverge and break my own trail the most from Nessmuk's original ideas. He usually danned up when cold weather came on, whereas I regard the winter months as the best for camping out. It was therefore natural that he should experiment no farther than with the blanket, which is totally inadequate in cold weather, unless you have so many of them that moving about with all that load is impossible. It was Admiral Peary, who eliminated the blanket and the sleeping bag together on his Arctic trips, who led the way for me. A sleeping bag is cold because you cannot wrap it closely around you, and is so wide at the feet that there are always cold pockets down there. The Alaska mail men use a bag of Arctic fox fur, tapered toward the feet and fitting snug at the shoulders, inside of which they can snuggle down, head and all. I used the same idea, in baby caribou skin, which is soft and thick and the warmest fur known, but I determined to have my sleeping bag a packsack by day to save weight, so I made the top half of the bag of a single caribou skin, and the bottom a sort of mattress of wool batting an inch thick. The whole weighs 7½ lbs. The caribou skin was



The Forester tent set up facing the fire so as to catch the direct heat rays



The outfit spread out, showing all that is needed for camping

sewed to a length of brown waterproof duck, 7 feet long and twenty-two inches wide, provided with grommets every 3½ inches along the sides, and also with a pair of webbed carrying straps, so that it could be laced up into a bag and carried by the shoulder straps. The mattress had a similar row of grommets around the sides and foot. Before going to bed, I open up the pack, lace the caribou fur top to the mattress, and so have a sleeping bag which fits snugly and is warm down to 22 below zero. Your top side is always the cold one; a few leaves under the mattress serve to make it comfortable and warm while the caribou skin covers the top of me, backed by its waterproof canvas. The skin itself is thirty-four inches wide, so it has considerable margin on both sides which serve as a seal inside the lacing and can be tucked in around one. To solve the problem of the cold dead-air spaces around my feet, I not only wear warm wool night socks but pull all my clothes inside the bag, shirt, sweater, etc.—the best possible place for them, because it keeps them warm and dry through the night, besides keeping my feet and legs warm. My coat or Mackinaw I throw over my head outside the bag, for one cannot breathe the cold night air without getting chilled down by way of one's lungs.

This rig I have used for cold weather camping for the last seven years, and have as yet seen no improvement on it for lightness and warmth. For summer camping it is too warm, and I have come to prefer a wool quilt bag weighing 3½ lbs. This is home-made, of wool batting and brown sateen, 7 ft. long by 30 inches wide. To make it, I get nine yards of sateen and cut them to make two quilts 7 feet long. Inside each pair of pieces are shingled six bats of Australian wool, costing 20 cts. a bat, and then the whole is quilted on the sewing machine, in diagonals about a foot wide,

and hemmed around the edges. The two quilts are then sewed together around one side, the bottom, and all the other side but two feet from the top. This makes a bag, with an open top, and two flaps down part of the side, which permit it being tucked around one snugly. For camping from May to October it does very well, and is wrapped inside the shanty tent with mosquito net sides, so that my tentage and sleeping bag together weigh but seven pounds.

NESSMUK'S double-bitted axe is now manufactured by one of our big outfitting firms. I never used it, preferring the plain Damascus steel camp axe of about 2 lbs. weight. The double bitt is rather dangerous around camp, as it cuts both ways and you are liable

to lop someone on the back-stroke. The ice axe, with pick point and cutting edge, is a fine one for summer camping. The pick point serves to dig holes in rocky soil for tent pegs, and its cutting edge is ample for small tent saplings and light fire wood. Needless to say, its long handle is cut to about 14 inches.

In Nessmuk's time we had no aluminum cook kits and no folding-handle steel fry pan, nor canvas camp bucket. All these have come since, so we have discarded his square tin pans (though I used them when a boy) principally because tin scorches so easily. As aluminum has three times the conductivity of steel, it keeps the fire heat from localizing and forming a scorch spot. It is no lighter than tin, but much easier to cook with. Of all the welter of cook kits offered, I now carry only a nine-inch steel fry pan with folding handle, an aluminum bake pan 7x9x1½ inches with cover, an enamel ware cup, a tin "growler," kidney-shaped, holding 3 quarts, and a couple of light tin mixing pans, 7x3 inches. They weigh all told 2½ lbs. and are ample for one or two men, indeed I have often cooked for three with them for a week or more. The growler is for spuds, rice and stews, and goes in a canvas water pail shaped to fit it, and is filled with the smaller eats, coffee, tea, salt, bacon, baking powder, erbswurst, etc. In the baker I make my corn bread, biscuits, and squaw bread generally carrying a flat bag of corn meal in it. The mixing tins are for cereals, making batter and dough, and for coffee and tea. One of them generally has the batter, while the other is simmering on the edge of the fire, with a couple of cups of tea or coffee or a dish of cereal in it.

As to Nessmuk's "other little muslin bags, we now have paraffined muslins and friction-top tins, neither of which were in existence in his day. In a small friction-top tin, you can carry half a

(CONTINUED ON PAGE 298)



Paraffined muslin bags and friction-top tins containing essentials for a camping trip

JAMES ALEXANDER HENSHALL

THE AUTOBIOGRAPHY OF THE APOSTLE OF THE BLACK BASS.
FATHER OF THE GREYLING AND DEAN OF AMERICAN ANGLERS

SECOND PAPER

IT is perhaps just as well to go back a few years to say that my first experience in school was when I was five years old. I went with an older sister as a visitor to a private seminary for girls and boys. The teacher was a lady, who probably seeing in me a prospective pupil, very graciously and sweetly gave me a seat on the platform beside her.

The experience was a novel one to me and I became quite interested in the proceedings, being of a studious nature. But my experience was destined to be a brief one, for one of the small boys committed some breach of discipline and was called up to the rostrum. Then the sweet-tempered lady placed the boy prone across her knees, pulled out the busk from the front of her corset, like a sword from its sheath, and proceeded to inflict on the thin nankeen pants of the culprit a sound spanking, despite his vigorous protesting kicks and audible whining. Thinking that this procedure was one of the regular and necessary features of the curriculum, and that it would be my turn next, I fled incontinently and ignominiously from the room and ran home as fast as my short legs could carry me, thoroughly disgusted with the method of imparting, or rather, administering education to the young. It was some years thereafter before I could be induced to enter a school room again.

My father's brother John, whom I never saw, lived in Louisiana. He was an artist whose specialty was painting miniature portraits in oil on ivory. He was also an accomplished musician, and as I always understood, was a fine performer on the flute. After his death his effects were shipped to my father in a large black oak chest, some four feet square and about three feet high, with a deep recessed lid. It was bound at the corners with iron, and had a strong spring lock. It was used at that day in lieu of the modern iron safe. The double-wards of the key had been broken off in the lock, so that when it became accidentally locked it had to be pried open, and for this purpose a hand-axe was kept conveniently near. The chest was kept in the attic, and was utilized by my mother for storing bed blankets during the summer months. She repeatedly cautioned us children not to meddle with the "big chest" as we called it, and to give force and emphasis to her warnings had several times read Thomas Haines Bayly's tragic poem, "The Mistletoe Bough."

It happened one day that a little sister about four or five years of age and I were playing hide and seek in the attic. After we had exhausted all the good hiding places I thought of the big chest, and swinging back the lid against the wall, I crawled on top of the blankets, with which it was filled to the rim, attempted to let the lid down carefully, so as not to lock it, but sad to relate it slipped from my hands and closed with an ominous

click. I was forced face downward on the pile of blankets. I could neither move nor speak, and after a few seconds I ceased to breathe. My little sister then came from her hiding place and rapping on the chest said: "I foun' 'oo" and ran down stairs and out in the yard.

My mother, apprehensive of something wrong because I did not come down called to the little girl and asked where her brother was. She replied; "he in 'e big chest!" My mother, now thoroughly alarmed, lost no time in reaching the attic, and her worst fears were realized when she discovered the chest closed and locked! She seized the hand-axe and after repeated efforts, and with a strength enhanced by fearful forebod-



Dr. Henshall at 40 years of age

ings, she at last succeeded in forcing open the heavy lid, and discovered me limp and lifeless, pulseless and breathless. She dragged me to an open window, and after a long time of hopeless endeavor, using every means at her command for the relief of suspended animation, she at last had the joyful satisfaction of hearing a faint sigh, and then another, and redoubling her efforts, until at last I became once more a breathing soul.

That evening my mother again read to the assembled children the "Mistletoe Bough," and dwelt with unusual solemnity and impressiveness on the concluding lines:

"At length an old chest that had long lain hid,
Was found in the castle—they raised the lid,
And a skeleton form lay mouldering there.
In the bridal wreath of the lady, fair!
O, sad was her fate!—in sportive jest
She hid from her lord in the old oak chest,
It closed with a spring!—and dreadful doom,
The bride lay clasped in her living tomb!"

MY chum Johnnie attended a grammar school in our neighborhood and he was constantly extolling its advantages, praising the teachers and the boys of his class, and was untiring in his efforts to persuade me to become a pupil. So, at last I concluded to accede to his wishes, and with the cheerful acquiescence of my parents I was duly enrolled. I was then nine years old, but since the age of five years I had been tutored by my mother, so that I was somewhat in advance of Johnnie in the three R's, "readin', ritin' and 'rithmetic." At our solicitation, however, we were placed in the same class, and I was assigned to a seat at the same desk with Johnnie. Being naturally fond of study I soon rose in the estimation of my teachers, as I was never reprimanded for lack of attention to my books or for violating the rules of decorum. I was usually selected to work out problems on the blackboard, and with a cane rod to point out on the wall maps the seas, bays, rivers, capes and cities of the world, while the class gave the audible responses in unison. I suppose that I became somewhat puffed up in my own estimation in consequence of my distinction in the class, and some of the less fortunate boys became envious and jealous owing to the favoritism awarded me. I was never quarrelsome, but this unfriendly feeling was the cause of my becoming engaged in a number of battles on the vacant lot back of the school building after the last session of the day.

The famous prize fight between Tom Hyer and Yankee Sullivan was pulled off about this time on Poole's Island in Chesapeake Bay, and the boys being somewhat familiar with the details of that event our battles were conducted according to the rules of the ring. I was small for my age but often vanquished boys much larger in size but not so proficient in fisticuffs, for I soon learned that if I got in the first hit, and a good one, that the battle was half won. Johnnie was my second in these affairs and always insisted on a fair field and no favors, and no hitting below the belt, which was a handkerchief tied about the waist. I was always fond of animals and while I was said to be mischievous I was never cruel, but I had many scraps with older boys for imposing on smaller ones, or for torturing dogs or cats. Tying a tin can to a dog's tail was a declaration of war to Johnnie and me, and the perpetrators of so cruel and mean an act were soundly pummelled if we caught them red-handed.

I possessed a boy's book of sports with numerous illustrations which was published in England. The pictures representing boys riding ponies, fishing, flying kites, playing marbles or engaged in any other sport, invariably depicted them wearing the high silk hat usually worn by men. This feature seemed very ab-

surd and ridiculous to Johnnie and me, as we deemed a cap to be more suitable in every way; and we imagined the fun we would have had in such company by knocking off the "plugs." But, alas, the opportunity came much sooner than I expected, and if this is to be an impartial history, I am compelled to record an event not at all to my credit. About this time it was the vogue for very small boys to wear a small edition of the high silk hat to Sunday school or church, but if a boy wearing such a hat was caught alone, without the body-guard of his parents, it is more than likely that the hat would have been used as a foot-ball by older and ungracious boys.

One day the boy who sat at the desk immediately in front of Johnnie and myself appeared wearing one of these odious "high hats" shown in our English book of sports. We considered that while it might be tolerated in Sunday school it was entirely out of place in a day school, and we vowed to smash it at the first favorable chance. The wearer, however, was the swiftest sprinter in our class, and we could never catch him after the school was dismissed. It was the custom at the close of school hours for the boys to remain in their seats with folded arms and with their hats on until class after class was dismissed. Whenever the boy in front placed that hat on his head I was seized with an insane and irresistible desire to smash it over his ears, and was only restrained from doing so by Johnnie.

It was winter time and a stove was within reach of me with a box of split wood beside it. One unlucky day I could resist the desire and temptation no longer, and seizing a stick of wood from the box and with all my strength I gave the offending hat a resounding whack that sent it flying over the heads of the astonished boys until it struck the opposite wall with a dull thud. As it sailed through the air I could see that the crown was loose and flapping like the wing of a wounded bird. Then the reaction came and I sank limp and guiltily in my seat. For an instant all was hushed and silent until a small boy laughed outright which was the signal for suppressed giggling from all the boys, until silence was again restored by the principal rapping on his desk with his rattan. He then dismissed the school after commanding me to remain in my seat. After all were gone he called me up to the platform. I saw that he was trying to smother a laugh and that there was a merry twinkle in his eye, so I felt safe. He then said:

"Henshall, I am very sorry and very much hurt that you could so far forget yourself as to commit such an outrageous act. What possessed you?" "I think it must have been the Devil," I said, "for

I could not help it." "What do you mean by saying that you could not help it?" he said severely.

I then explained by saying that day after day it had become an obsession and a consuming passion with me to smash the hat, and I think I convinced him that it was done thoughtlessly and the impulse of a moment. He said the only punishment commensurate with the offense was expulsion from school, but that under the circumstances that would hardly be justifiable; but I must apologise to the whole school the next morning, and give Richardson my Sunday cap, all of which was done. But Richardson would not accept the cap, and said he was glad that I had "busted" his hat, for he only wore it to school under protest to please his mother who thought it was stylish, and so ended the disgraceful affair.

ONE Saturday, soon after the disreputable affair of the hat, Johnnie and I were wending our way to Spring Garden, a branch of the Patapsco river, to fish for white perch, yellow perch and spots, or Lafayettes, which were very abundant in that estuary. Plodding along, our steps were arrested



"Pound for pound and inch for inch the gamest fish that swims"

by a very novel sight. Some workmen were planting the poles and stringing the wires for a telegraph line extending from New York to Washington, the first in the United States if not in the world. It was a strange and unique proceeding to us, as the only poles we had ever seen erected were the hickory poles of the Democrats or the ash poles of the Whigs during political campaigns.

It is not only a matter of wonder, but it seems almost incredible to reflect, that within the narrow span of my life, from this small beginning, electric wires now encircle the globe, traversing continents and crossing seas, so that an event that occurs at the antipodes is published in our newspapers on the same day of its occurrence. And then the related wonders, wireless telegraphy and the telephone have also been invented and perfected during my life, and the gasoline automobile, the airship and the submarine boat evolved during the same period.

The seven wonders of the world of ancient days are as nothing compared with the wonders of the nineteenth century; they are as mole-hills to the peaks of McKinley, Hood or Rainier. The greatest war in the world's history which has just

been brought to a close, would in all probability have lasted ten years longer, or might have rivalled in length the famous thirty years' war of history, had it not been for the wonderful inventions mentioned that annihilate time and space. Well might one exclaim in the words of Celia to Rosalind: "O, wonderful, wonderful, and most wonderful, wonderful! and yet again wonderful, and after that out of all whooping."

But Johnnie and I will be late to our fishing if we stop by the way to moralize on the affairs of the world. So we hastened to Bailey's wharf, where we hired a rowboat, two light cane rods, a scapnet and a tin can for bait, for the sum of twenty-five cents, a "levy" apiece. We carried our lines, hooks, floats and sinkers in our pockets; not a very expensive outfit compared with modern times! Rowing to the old pile bridge spanning the little bay, we scraped the scap-net up and down over the barnacle-studded piles and soon had a pint of shrimps, the bait *par excellence* for all brackish water fishes. We then proceeded to our well-known fishing grounds along the weedy borders of the flats, where the yellow perch, or "Yellow Neds," as they were locally known, were always to be found.

The yellow perch of the coastal brackish waters grow larger and are more brightly colored than those of inland fresh waters. I have caught them in Wisconsin lakes of a pound or, occasionally, of nearly two pounds. I have taken this beautiful fish near Baltimore of fully two, and once in a while of three pounds, near the long bridge leading across the Patapsco to Ann Arundel county. The yellow perch of brackish waters is superior in flavor to the fresh water fish, which, however, is a much better pan-fish than some anglers are willing to admit. It is also a fair game-fish on light tackle when weighing a pound or more, and rises well to the fly.

JOHNNIE and I varied our fishing by rowing to deeper and less weedy waters along the channels where we were soon engaged with the white perch, the most popular and one of the best pan-fishes of the brackish bays of the Atlantic coast. It is free-biting and game-some on light tackle. It generally runs from six to eight inches in length, though occasionally reaches a foot, and weighs a pound or two. Then we varied our fishing by rowing to well-known holes along the old bridge where Lafayettes, spots, or as we called them roach, would congregate in small schools. The spot when not long out of the water is a delicious titbit and a palatable morsel when well cooked. It is of less weight and size than either of the perches, and not at all to be considered a game-fish.

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FISHING IN THE MISSISSIPPI FLOOD

THE PERIOD OF HIGH WATER IS THE CARNIVAL TIME OF THE FISHES AS, FOLLOWING CLOSELY THE ADVANCE OF THE OVERFLOW, THEY JOYFULLY INVADE THE LAND

By W. R. MACILRATH

IN THE spring and early summer, in the river towns of the Mississippi Valley, there arises in the minds of the populace what might be called flood consciousness. It is the dominant thought beside which all else pales into insignificance. The interests of pretty nearly everyone are effected by it; besides a big flood is in some way a wonderful sight that never grows non-interesting merely because the inhabitants have seen many of them.

So, when the papers run, under big black headlines, the story of a big rise coming, mixed crowds of negroes and whites, old men, middle aged and boys, all gather down at the bridge to watch the water and discuss the coming flood. Old timers tell of other floods in days gone by, supported by endless detail, and not without thrilling passages that have to do with rescues effected, privations endured and losses sustained.

The tone of the crowd is good-natured and sober. Perhaps a poker game is going on which some member is constantly leaving and another taking his place. They divide their interest between the game and looking at the river. A bunch of johnboats and skiffs are tied at the edge of the slag dump of the pumping station, just below the immense steel bridge over which the trains pull slowly.

From time to time a man goes down to the skiffs and johnboats and ties one or two of them higher up the bank as the flood pushes back in the green willows. A solitary old darkie, with cot-

ton mixed with his wool, has a solitary cane pole pushed in the bank at his feet and a rusty can of fat worms beside him, fishing without success.

The crowd stands for hours and looks at the driftwood and patches of soapy foam borne on the chocolate current, as the silent river rises higher and higher. Men and boys are continually arriving and departing, but the crowd is always there. Conversation is quiet and in low tones. The interest silent and intent. The mood of the crowd seems to match the mood of the river.

THE coming of the flood is harvest time for the poor whites and shantyboat men. Their homes simply rise with the flood. They have nothing to fear; nothing to lose; and the possibility of much gain. Besides there is the unique flood consciousness that is as interesting to an old river man as the movie shows themselves. A flood is an interesting bit of phenomena.

While the shantyboater may make as much money in normal water, fishing, or pearl hunting and digging shells from which pearl buttons are made, in the flood there is variety and adventure and a gambler's chance. He catches saw-logs that have broken away from a raft, or have been picked up by the rising waters out of the low woods where they were cut. He then cheerfully tows them to the saw-mill, where he can get cash for them just as much as if he owned the land where they were cut, and cut and rafted them himself.

The silent, foam-flecked current brings him planks and boards to repair his shanty boat, or his chicken fence on shore; a lot of perfectly good lumber floats down the river, to say nothing of houses already built. The hire of his skiff or johnboat is in more or less constant demand.

Besides, the shantyboater knows where there are some excellent deep sloughs where he can drop in his hoop nets at the first indications of the river's subsiding. He knows the stages of the water, and when it will be right. And he knows that when he pulls them up they will be as full of fishes as the nets of the fishermen in the Bible; so many that a rotten net will not hold them. He has just given his nets a coat of fresh tar, and they lie stretched between trees on the high bank; sticky, smelly and drying.

For the period of high water is the carnival time of the fishes. They leave the river channels and rush into the overflow lands, following closely the advance waters, floundering and making ringed wakes, joyfully invading the land.

All kinds of fresh water fish are among them; but it is hardly ever that one catches a black bass or a bullhead at such times. But great, brown catfish, silently and without demonstration, move up the deep channels and sloughs into the overflowed lands, and afterwards leave them for the woods, the maple flats, and the inland lakes. Your big, brown catfish is not a noisy invader.



People stand for hours and look at the driftwood and patches of soapy foam borne along on the chocolate current

He is not constantly making his presence known after the manner of some other fish. He is rarely seen and avoids the shallows. In the main, he follows up the deep channels, always close to the bottom, and is the first of all fish to go back to the river when the waters come to a stand before they fall.

Not so the ubiquitous carp and royal buffalo. They throw up their tails and bore into the earth, making ringed patterns on the water, and push and hunt through the weeds like hounds working out a trail. Backs, tails and fins are constantly being exposed where the water is shallow; the submerged cornfields are full of them. The crappie, too, come out in goodly numbers, but are not seen as are the carp and buffalo. Eels and shovel-billed cat add to the interest and variety of the catch when the waters subside. All the suckers are there, red horses, quillbacks and shiners, as well as the stately white perch or drum.

It is a curious thing that bullheads are hardly ever taken, for they are found in almost every pond-hole after the waters have receded, but even in nets where eels are caught (which means that all fish are caught) it is seldom that a bullhead is seen. Little channel cats are caught by the barrel. It would seem that the bullhead must stay pretty close to home and not rove around much. After the ponds dry up each year, thousands of bullheads perish, along with other fish, but the next year will see a new supply, apparently as numerous as before.

IT is a liberal education to be in, and go about, the river towns, such as St. Louis, Cairo, Memphis and Vicksburg when the Big River is booming. There is a psychology, an atmosphere, that resembles nothing else in the world. It is felt, being hardly susceptible of analysis. It is unlike war, unlike a great fire, unlike a political convention, unlike even a motor-boat show, although there are plenty of chug-chug boats in evidence. All about the city is inundation. Trains creep in slowly over partially submerged tracks, houses leave their foundations and float about. The steamboats out on the river blow to each other sonorously.

Chimneys belch black smoke from soft coal; the women's wash flies white banners from the back porches, defying the soot and grime. The effects of the refugees are piled about on the wharves and public squares. Men pile sandbags where they think they will do the most good. Great truck loads of boxes and bales thunder down to the docks over the rough stone pavement. The river piles up masses of froth against the piling and drifts. Blue bottle flies hum and buzz about. Rainbow-colored spiders race over the water. And the river runs swiftly and silently by.

However, it is not on the river front with all its busy commercial life that our chief interest centers, but in the back bayous and little coves of low ground among the submerged trees where the shanty boat town lies. If you would see the real inwardness of river life go there and move about and mingle with

the denizens thereof. If you go plainly dressed and have some apparently good, legitimate excuse you will not be unduly conspicuous and things will move along in a natural way.

If you have a letter of introduction to some one it will do much to smooth the way, for the shantyboat fisherman is a suspicious person, not always wholly without cause. If you want him to take you to his heart, and open up his soul, and confide to you some of the secrets of his trade, you must first get the impression into his mind that you are not a revenue officer or a fish warden. If you can do this indirectly, by suggestion,



Caught in the overflow.

so much the better. If you want to go fishing, and can make the proposal in a natural manner, he will take you along.

Immediately one of these men takes you into his confidence a new world, you are little aware of, opens to you. You begin to see fact and perspective of what was before a most superficial picture, meaning nothing. You begin to be, as it were, initiated into the fraternity of shantyboat fishermen, and to see things from the inside. You probably will not agree with his viewpoint in all respects, but you will learn much, and among other things, that "a man is a man for all that."

HOOP and trammel net fishing is familiar, no doubt to everyone; no fine technique, no finesse, but a good bit of knowledge of fish is required. If the net is held up by weeds or brush to the width of a man's hand the most, if not all, the fish will escape. If it is held up six or eight inches for a space a foot long they will all certainly escape. So the fishermen plant forked sticks over the lead line, clear across. Then if the mesh is tight enough they catch eels.

But there are other methods of fishing the overflow, which, though not so profitable by any means, are more interesting from the viewpoint of the sportsman.

For example, few people know of the custom on southern rivers of tying a short line to a bush and baiting it with a crawfish or a frog, or a large-sized young fish, for the big brown Mississippi cats in the woods. Cats follow the channels. If there is a little ditch three or four feet deep winding through overflowed land, that is a good place to catch cat. A tempting shiner hung at just the right spot will do the trick. When a green bush has a 30 or 40-pound cat attached it makes a very animated appearance in the green woods, thrashing the water viciously, and making the blood race through the veins as the duck boat draws up to take the prey.

Then, the simple joy of being out in a boat in the submerged land, is, in itself, a treat. It has a charm that grows on one. The consciousness of fish being all around you, though unseen. The presence of animals that have climbed up on logs and floating debris to escape the water. The brilliant-hued spiders, the squirrels in the trees, the crows mobbing an owl in the depths of the wood, the shadows which paint pictures on the watery canvas duplicating that above, the wake of fish, the eternal green coolness, all go to make it an experience unlike anything else, and supremely worth while for those who can have it.

There is another way of catching cat in the overflow. When the river is not yet all over the bottom, but is only beginning to break its banks (this applies to a smaller river than the Mississippi), when the maple flats are beginning to inundated, the fisherman takes a trot-line, and instead of stretching it across channel, stretches it up and down along a willow bank bordering one of those low maple flats where catfish leave the river to go into the woods. Bait with crawfish, frogs or shiners. It is an unusual way to fish to say the least, but it brings success in some measure when it would be useless to fish in the channel; indeed lines could not be kept in the channel at such a time on account of floating drift and other debris.

Carp and buffalo can be caught with a long-handled dip net in the overflow by wading, stalking them, and picking them up. To stalk the wake of a fish and pick him up with a dip net is not so easy as it sounds.

BUT the joy of being out in a boat in the overflow is the supreme reward.

The companionship of a man who knows the country, the green woods with birds in the trees above the water, the fairyland of reflections, the odd zoological specimens in the form of bugs and spiders, and the fish consciousness that you will soon develop. The great, gnarled trees, draped in mammoth vines, stand in the submerged forest; and the beautiful summer weather, with great banks of yellow-white clouds. All these tend to make floating around in a boat in the overflow anything but commonplace and he who visits the Mississippi in flood time, will carry away with him memories of scenes that will be as unique as any he will experience in many a journey to places that are much farther removed from the ordinary walks of man.

GOING CATTIE FISHING WITH A BOY

THE SECOND INSTALMENT OF A SERIES OF STORIES DEPICTING THE
SIMPLE JOY OF FISHING AS EXEMPLIFIED THROUGH THE EYES OF YOUTH

By LEONARD HULIT, Associate Editor of FOREST AND STREAM

THE mail was late one morning at the village near which the man was boarding and he was awaiting its arrival at the store. One of those quaint affairs, so general throughout the rural districts, with its motley collection of merchandise, where could be had

Liniment to cure lumbago

Ploughshares, oranges and sago.

The man was one of a numberless throng who, through dint of long hours and every day service over ponderous ledgers, though not yet of middle life, had reached the condition where rest and change was imperative.

His wife and one child had gone to spend an interval of time with her people while he had decided to recuperate in the region of his youth.

As in most sections of its kind, but few changes had taken place during his absence. Some of his old friends had passed to the great beyond, while those of his own years had become the staid residents, working out their destiny much as had their predecessors. He was reading a sale bill hung up in the store, when in breezed his boy acquaintance of a few days previous, garbed much the same as on the previous day except that his battered straw hat was replaced by a cap equally reputable in appearance, worn well back on his head, and showing off to good advantage the freckles on nose and cheeks.

"Hello," he said on catching sight of the man, "feelin' better now?" I ain't been to the ponds nor creek since leavin' you that night, 'ception once just 'fore dark. Got some cattles an' one wallop in' eel. It's cloudy today an' may rain some. If you don't mind, s'posin' we go after cattles long 'bout 2 o'clock? Aunt Mary'll let me go; she gen'ly does when the garden work's done and no errands to do. An' say," he ran on, scarcely taking breath, "you needn't bother none about bait, I've got a lot of worms washed and mossed; keep better that way; makes 'em tougher. If you look the moss over good an' pick out the dead grass ends the worms won't cut, 'nen keep 'em where it is nice and cool."

The boy had a peculiar method of abbreviation when speaking earnestly. His "and then" was usually corrupted into 'nen and soon through an original and reg-

ular vocabulary. "'Ception," he continued, "you might bring 'long a piece of beef if it's good and red. Cattles take it sometimes better'n worms. Funny, ain't it, how they'll notionate 'bout eatin' this a way an' that? Got good hooks?" he asked, "they've got most all kinds here," So, upon inspection, a selection was made which suited the boy's idea as to size. He examined the mark 2-0 on the end of the box with a puzzled air. "I d'know why they mark 'em that way," he thoughtfully observed. "There's a reason I s'pose. Anyhow, that's good size, but most anything will catch cattles, but might as well have 'em right. An' say, Mister, what does that mean?" His finger followed the word "Kirbed" on the blue label of the box.

The man explained that it meant the point was bent or sprung out from a straight line with the frame of the hook. The explanation was met with the simple monosyllabic "oh," adding, however, as to himself: "They're dandy hooks; but too small for pike an' some too large for perch or sunnies." Here was a hint, which was taken good-naturedly by the man, and their heads were soon together making selection, 4-0 for pike, as the boy persisted in calling them, and No. 12 for smaller fish.

The man divided his purchase equally with the boy, much to the latter's delight. He scurried away and from somewhere produced two large bottle corks and at once proceeded to place the hooks thereon, pressing the points well in. The man received a letter from home, the boy a newspaper from his aunt. They separated at the door, the boy calling back from quite a distance: "Meet you at the white bridge 'bout 2, meb'e a little sooner," then went on down the road with his carefree swing, the man reflecting that there are Tom Sawyers or Huck Finns in every neighborhood awaiting another Mark Twain to record them.

THE youngster was on the bridge at the time appointed and, as the man approached, was industriously hurling bits of rock at a red squirrel in an adjacent tree. The squirrel was industriously dodging this way and that, now up, now down, then out on a limb as the rocks struck the trunk with resounding thwacks; meanwhile keeping up the blustering chatter of its nature.

The boy had not noticed the approach of his friend until he heard his step on the planks, so intent was he in his pursuit of the squirrel. Then he said, "Wish't I had a gun, them chick-a-rees ain't no use 'cept to chase the big greys through the woods and rob every birds nest in creation."

He, although uncouth of speech to a degree, was fast learning the ways of the wood folks as well as that of the denizens of the waters. The man noticed with pleasure that during their many excursions no coarse speech escaped the boy's lips, though crude in many ways and some of his sayings were uncanny. "There goes a flicker," he observed, as they passed by a large ash tree in the meadow. "I'll bet she's got a nest in that dead limb out there. See that hole?" His eyes took in carefully the trunk of the tree which was much too large for him to attempt to climb. "High-holders we call 'em, but they can't sing, they just squawk."

"I didn't bring no pole with me today no more'n you," chattered on the boy, "we'll go over to the birch sprouts an' cut what's good an' limber. Most fun in catching cattles is to see the pole bend, an' that gives 'em a chance to scoot around more; 'tain't no fun in jest hossin' 'em out. Got a knife? My name's Matt," he rambled on, "though most of folks here call me Mott. Why, I don't know. What can I call you b'sides Mister?" The man good-naturedly

informed him his name was Woodhull, at which the boy remained thoughtfully quiet for some time as though to fix the name indelibly in his mind. "They'll do," he remarked, as he looked the two birch poles, with their white butts and red tops, over critically, which had been selected and closely trimmed. "They're good an' long, so we



The boy cut a pole in the birch sprouts and attached a crude reel

will use a line some shorter, so as when the pole is bent you can keep the fish comin' slow, but you get him." Mr. Woodhull had kept in view, since their first meeting, the intense practical methods of the boy. The ethics of the game were his. He seemed at fault on no essential point.

Even when it came to baiting up, as he termed it, there was method. "See," he said, "I do not run the hook all the way through the worm, but weave the hook in and out two or three times; that lets the worm live longer and does not tear it up so; b'sides, fish see it better if it wriggles."

They were at the place where the boy had said, the day of their first meeting, was good for catties, and each proceeded on his own initiative. Matt, first gauging the depth of the water, then set his float so that the bait would just clear the bottom as it moved about with the current.

"They're always on the bottom," he observed, "an' the closer you fish the more you'll get. There's no sense in puttin' on more'n one worm at a time, they don't get 'em in bunches 'ceptin' on some fool's hook. I fish a way from the current an' more where it moves 'round in circles. See, there's one now." With a quick jump to his feet, the pliant pole was sent into quick doubles. The hooked fish

darting here and there but gradually being worked to the bank where with a flourish, the boy sent him into the air and laid him on the grass a fine specimen of his tribe. "He's a broad-mouth," observed Matt, then to Mr. Woodhull: "Ever notice any difference in catties?" Perhaps the latter had, in his early days, but if so had forgotten the fact. "See, the mouth is wide and head broad; some we get up in the little mill pond are different. Their heads are not near so broad and mouth smaller and have white bellies always. An' this kind have plumb dirt color bellies. I wonder why? This way I take 'em off," he said, walking over to his companion and placing his left thumb behind the fin on the right side of the fish, then the index and middle finger over the back and on either side of the back or dorsal spine ray and so on over to the left side, thus pinioning all the dangerous rays to a rigid position and under perfect control. Woodhull had known all this in his earlier days and so many of the moves and methods of the boy Matt was like re-reading a well known book. But time and business thoughts had swept them temporarily from his mind and good it was to him to have this youthful mentor at his side, not

alone for his helpfulness, but his cheerful association and quaint sayings were always amusing and very interesting.

"ANOTHER thing," continued Matt, "there's no sense in battin' a fish or eel over the head with a stick or bangin' it on the ground, holdin' on to the line. I stick the knife blade just back of the head 'nen push down hard and go through the backbone; the fish is dead in a jiffy, he can't wriggle 'round no more and saves lots of trouble. Say," he said, brightening up, "a man was down here last year fishin' and he said that fish never had pains. They had no 'pain nerves' he called 'em, you couldn't hurt 'em same as a dog or cat. Do you believe that?" he asked earnestly. Then, as if a happy thought came to him, he said: "Gosh, if that's so they never have the bellyache," and he laid down on



The rude country bridge which arches the habitat of the cattie

the grass and giggled. The fish just taken was a good one, of two pounds or more in weight, and as he had performed the operation he had last mentioned, of cutting through the backbone close up to the head, the fish was limp and fast dying. "Is there any sense to them things and, if so, what?" he asked Mr. Woodhull as he fingered the barbels on the lips and chin of the fish. He was told that they were much the same to a fish as the whiskers to a cat or dog; very sensitive to touch and no doubt helped the fish much in searching out its food. The only reply was the familiar "Oh." Fish were taking hold in fair shape and both were content for a time to apply their attention to their respective lines, except when a larger one than usual was taken or it might be a very small one, sufficient to cause comment, but little of conversation for a period ensued. "Did you bring along the beef?" finally asked the boy. "I'll try it and see what they say to it." The beef was produced and a small portion put on the hook by the boy and was quickly taken by a fish, the boy remarking, "See, they are hungry and will take most any kind of bait. Some days they are too lazy to bite at more'n worms and then not al-

ways at them unless they want to.

I wonder what's doin' on your hook." Then after a moment or two, as they watched Mr. Woodhull's float work over where the water was quite shallow. "Don't seem like a cattie; meb'e its an eel, but don't seem like it." Then the float came to rest, partly submerged, and both were puzzled. The man raised his pole and remarked: "Its a stick, I think. I'll see," and drew all from the water. "Gee, what's that," yelled the boy, as he ducked his head and an object like a lizard swept over, fastened to the man's hook. "I never seen anything like it before. Seems most like an alligator, only uglier in shape." It was much like a lizard, in fact, but the tail was quite as long as the body and quite without taper, the whole animal being disgusting in appearance in the extreme, and so sluggish in its move-

ments as to appear almost inanimate. The boy stood well away from it and seemed spell-bound. "Wonder if its pizen," he said. The man, much amused, watched the face of the boy for a short period and then said: "Yes, I remember seeing one before; it was from a pond above here. A man took it from a muddy slough. He called it a "mud-puppy" or "hellbender," and said they were harmless. "Well," said Matt, after a

considerable pause, "the last name is best, an' I hope, if there's any more of them they'll forget to bite." Bringing a stick down across the back of the offending creature with all his might he cut the line well away from its mouth, thus sacrificing the hook, and, gathering the remains on the end of the stick, he threw them across the creek into the brush with the remark: "Gosh, I didn't believe there was a thing like that around these parts. I knowed there was blood-suckers in the shoal water down below, but a thing like that! Suppose one should get hold of a fellow when he's in swimmin'. Gosh, why its a foot long," he continued, "meb'e more." Then, seating himself by the side of the man, he began working his big toe into the soft bank below the sod and seemed troubled in spirit. All interest in fishing had suddenly left him. The man had resumed his fishing, but the boy's pole was dangling in the water, his mind fully absorbed by the thought of what to him was a monstrosity.

"Let's go home," he said, "its most night and we've got plenty of fish for both of us. I hope I don't dream about that bender tonight. I don't like to think about such things as that. Goodbye."

(TO BE CONTINUED)

FOREST AND STREAM

FORTY-EIGHTH YEAR



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THE OBJECT OF THIS JOURNAL WILL BE TO studiously promote a healthful interest in outdoor recreation, and a refined taste for natural objects.
 August 14, 1873.

NEW CANADIAN BIRD REFUGE

THE Dominion of Canada has long been famous for good game laws, well enforced, and more recently for active co-operation with the United States in the protection of migratory birds. Not all the Provinces have been equally advanced in this matter, but the sentiment of the Dominion as a whole is one to be applauded by all English-speaking people on this Continent.

The Parliament of the Province of Quebec has recently passed a protective law of great importance, which creates a vast reserve for sea birds, including Islands in the Gulf of St. Lawrence and in the Bay of Chaleurs.

The Bird Rocks in the Gulf of St. Lawrence have been famous for many years, but increase of population has caused increased destruction of the birds and their eggs and has greatly reduced the numbers of sea fowl that used to draw their living from these waters. The areas included in this new reserve all lie within the County of Gaspé, long famous for its salmon, its caribou and its cod. One of them is Perce Rock, on the north coast of the Bay of Chaleurs, where breed great numbers of herring gulls and cormorants. The cliffs of Bonaventure Island, a few miles from Perce, furnish resting places for colonies of gannets, with auks, puffins, guillemots, murre and kittiwakes. Then, there is the great colony at the Bird Rocks of the Magdalene Islands, which has always been so impressive to those who passed near it. Egging, killing the birds for fish bait and other destructive methods have greatly reduced this colony, the sight of which so astonished Audubon on his visit to Labrador in 1833.

These refuges are to be under the administrative control of the Ministry of Fisheries, and the provisions of the law are stringent. It is forbidden to take or molest birds or their nests or eggs, or to carry a gun or hunting implements either by land or water within a mile of the localities indicated. Severe penalties are provided for infractions of the

law. Its provisions include all migratory birds, so that this reserve is a refuge not only for sea fowl whose economic services are thought by many people to be negligible, but also for traveling wild fowl and insectivorous birds.

This law was urged on the Quebec Parliament by the Hon. Honoré Mercier, Minister of Fisheries, who made it clear that the Province of Quebec values these birds, not only for the part they perform in the scheme of nature, but also for their scientific interest and their natural beauty.

By creating one of the largest bird reserves in the western Continent the Province of Quebec has erected a monument to its own wisdom which will not soon be forgotten.

ATTACKS ON THE ANTELOPE

THE prong-horned antelope, formerly the most abundant big game animal west of the Mississippi River, has now dwindled to a few pitiful remnants, scattered over different states and fast disappearing in the United States. In Mexico, on the other hand, antelope are about as numerous as they ever were. Efforts by sportsmen all over the land have procured, in practically all states, the enactment of statutes protecting the antelope; and private enterprise has established three or four separate herds whose future still hangs in the balance.

Yet, frequent efforts are made to break down the laws protecting antelope. A bill, recently brought before the Legislature of the State of Nevada, provided that the County Commissioners should have authority to declare an open season on antelope for a limited time in certain counties in which they occur in some numbers, and in his last report the Game Warden of Wyoming recommended that permission should be given to kill a certain number of buck antelope in that state, alleging as one reason for getting rid of these antelope that the old males kill the young.

It is greatly to the credit of the Legislature of Nevada that the bill there introduced, having been referred to the Fish and Game Committee of the Legislature, was pigeon holed by the Committee and never reported on. That antelope are too numerous anywhere is an implication by the people standing behind the Nevada bill, which is palpably untrue, and the statement of the Wyoming Game Warden that buck antelope kill the young is a reason advanced to promote vicious legislation by a man who has not informed himself as to known facts.

If the sportsman public rejoices in the good sense of the Nevada Legislature they may also regret the attitude of the Wyoming Game Warden.

SCIENTISTS DISCOVER RARE FISH

DEEP in the seclusion of the Long Beach Laboratory, on the coast of California, with nothing but the murmur of the ocean to disturb their operations, Will F. Thompson and Elmer Higgins, well-known fish experts, have been busy identifying specimens of various fishes secured by the new patrol boat "Albacore," which is making a scientific investigation of the Southern California fisheries. For example, one rare fish which recently came into the laboratory was a specimen of *Tetragonurus cuvieri* Risso, which these experts termed "The Squarehead" for lack of a better name. This fish was found near Catalina, and is, according to reports, the first of its kind found in North Pacific waters. Although we hear this species mentioned as

a rare fish existing in the Mediterranean by the naturalist Rondelet as early as 1554, and although since that time it has been taken several times in the Mediterranean and near the Madeira Islands, yet never before has it been caught off the western coast of North America. In her finely meshed nets, the "Albacore" has taken a specimen of *Stylophthalmus paradoxus*, a native of the Indian Ocean, also a member of the genus *Trachypterus* (king of the salmon), which is supposedly very rare. Nor did the *Exonautes rondeletii*, a kind of flying fish, formerly found only in tropical seas, escape the Albacore's nets. She also obtained from the deep a species of sandcrab hitherto confined solely to Mexican waters.

NATURE CAMOUFLAGES SIERRA GROUSE

OUR war camouflage was based upon the theories of an American birdlover, who studied the mathematics of color patterns of birds like the Sierra Grouse. This scientist offered his discoveries as a contribution to the Allies to insure the protection of both the men fighting on land and the vessels trying to escape submarines in the water. He showed that the concealing coloration of birds nearly always consisted of broken color patterns. Reasoning from this, he demonstrated that solid colors, like the battleship grey, were, after all, not the most protective. He proved from the mathematics of bird color-patterns that certain angular areas, tinted with different hues, tended to confuse the enemy's eye more than the old method. The camouflage that resulted in saving thousands of lives and tens of thousands of tons of foodstuffs, vital to our winning the war, was, therefore, a by-product of bird study.

UNIFORM LAW FOR MIGRATORY BIRDS

PERHAPS migratory birds will never again be seen in such vast flocks as when the early settlers pushed their way westward, but specialists of the Bureau of Biological Survey, U. S. Department of Agriculture believe their numbers are now increasing year by year. Widespread interest in their preservation, prompted by American sportsmen who saw the birds would be exterminated by unchecked destruction, is thought well justified when it is considered that the birds' food and economic value amounts to many millions of dollars annually. Growth of sentiment for the conservation of so valuable a resource by preventing destruction, through spring shooting, of game birds and by other protective measures, has been notable in the last half century.

In 1900 only nine States had laws prohibiting all-spring shooting, while in 1918 there were thirty-one. Only three States now afford no legal protection. The original Migratory Bird Law Bill was written and introduced in Congress by George Shiras III. This bill was laid over, but the subject, however, was kept before Congress almost continuously by FOREST AND STREAM and its readers, who were concerned in the great work for the sportsman of the future. The Legislatures of fourteen states approved the bill and over 8,000 letters were received in this office endorsing the movement.

This Federal statute merely conferred on the U. S. Department of Agriculture the power to fix closed seasons during which it would be unlawful to capture or kill migratory birds. This law did not provide for effective enforcement, but it exerted a wonderful influence upon the public mind, and its passage laid

the real foundation for more adequate protection. Fully 95 per cent of the sportsmen abided by the regulations established under this law and refrained from shooting during the closed seasons. The result was almost instantaneous. Waterfowl and other migratory game birds showed at once a marked increase in numbers. At a recent dinner held here in New York, Dr. George Bird Grinnell, the first advocate of the non-sale of game, in discussing hunting conditions in the past and for the future, predicted that the sportsman of the future, fifty years from now, will have better shooting than their great-grandfathers ever knew.

LEONARD HULIT'S FISHING STORIES

MR. LEONARD HULIT, whose delightful articles on fishing with a boy and the rejuvenation of angling are now appearing in FOREST AND STREAM, has this to say in regard to them:

"In writing these sketches I make no claim to literary accomplishment. I try to write simply of the fishes as I have found them in more than forty years of pleasant endeavor. To me the pond and brookside have ever been sacred places, while their inhabitants hold a tender spot in my mental vision.

"The boy Matt in these stories is, or was, a real character. Should these sketches fall into the hands of those living in the section where the scene is laid, they will readily recognize him, and, I feel, will grant I have sketched him true to life. He died many years ago while still in his vigor—a victim of pneumonia, contracted while on a trapping excursion. Mr. Woodhull also was taken from actual life. He fished much with the boy and became greatly attached to him, and I think each were benefitted by the other. When I first became acquainted with him he was in most delicate health, but his trips through the country restored him to full vigor. What finally became of him I never knew, nor do I know if he is still living. Aunt Mary lived to be more than eighty and died in the cottage where we first met her. If these sketches should prove of help to the amateur or give a pleasant hour to the past master of angling I shall be content."

A SCHOOL FOR BIRD STUDY

AT Amston, on a great tract of several square miles of sightly country in eastern Connecticut, diversified by hills, ponds, streams, and a large lake, by the courtesy of the owner, Mr. Charles M. Ams, of New York City, The National Association of Audubon Societies has its Experimental Station in wild bird culture and game farming. It is in general charge of Herbert K. Job, the well-known ornithologist and author, with assistants, including Robert K. McPhail, formerly game-keeper to the King of England at Windsor Castle.

This tract has been made a Wild Life Sanctuary and State Game Preserve, and it abounds in bird life, over one hundred species having been observed in summer, without the migrants. It is the plan of the association to make Amston a choice resort for lovers of birds and nature, where such can study and enjoy them amid uncommonly favorable surroundings with congenial persons of like interests.

With this end in view a summer school has been established with courses in applied ornithology, conducted by Mr. Job, with lectures by visiting specialists, and demonstrations in game propagation, trapping of vermin, and other practical work.



THE VARIATIONS IN BIRDS' EGGS

INDIVIDUAL DIFFERENCES IN BIRDS' EGGS AS TO FORM, COLOR AND NUMBER IN CLUTCH ARE BUT PHASES IN THE EXPRESSION OF UNIVERSAL, BIOLOGICAL LAWS

By ROBERT CUSHMAN MURPHY

AT this season our native birds, in response to the instinct of reproduction are preparing to build their nests and, after a period of incubation, to produce the first brood of spring. Already several species of owls, and some of the hawks, have finished their parental duties, and are now bringing food to half-grown fledglings; and even the bluebirds and song sparrows and other small birds are carrying nesting materials to the chosen sites in anticipation of the coming set of eggs.

"Birds-egging," as our British friends call the custom of gathering the exquisite shells that have thrilled so many ardent young naturalists in years gone by, is a hobby which boys are no longer encouraged to ride. For generations before the present, however, how many youngsters have risen at peep o'dawn of a spring day to raid some tempting nest ere the sun should bring forth the conserving power of public sentiment! Who has not duplicated the direful experience of Tom Brown (or was it one of his equally incorrigible cronies?) who smashed the addled kestrel egg in his mouth when he adopted this delicate means of bringing it safely from the nest to the ground? And who of us, alas, has not seen his cabinet of blown shells, which had been assembled with such zeal and tenderness, consigned gradually to dust, bugs, mice, and oblivion, unless perchance a small brother or a local museum gave him the opportunity of unloading a half-troubled conscience and the remains of a collection—of which the recipient accepted only the latter?

For those who have carried their love of birds' eggs into manhood, and who, after carefully choosing their field, have made the collecting of nests and eggs only one phase of their study of life history and other branches of ornithology, there is of course, a happier prospect. Much scientific work of a high order has been accomplished by naturalists of this type, Major Bendire's "Life Histories of North American Birds" being an excellent example of a standard book prepared by a man who was an oölogist or student of eggs. The most useful of egg collections have been, as a rule, those of private enthusiasts, for the field of biological science is so large, and the distractions of the staff of a natural history museum so many, that the greater number of birds' eggs in public museums are kept in safe but more or less unprofitable storage. Duplicating, to a large extent, similar material elsewhere, the average mu-

THE Natural History Department has been for nearly half a century a clearing-house for information of interest to all. Our readers are invited to send any questions that come under the head of this department to Robert Cushman Murphy, in care of FOREST AND STREAM. Mr. Murphy, who is Curator of the Department of Natural Science in the Brooklyn Museum, will answer through these columns.—[EDITORS.]

seum collection of eggs unfortunately accomplishes no dynamic purpose in the advance of science.

There has recently been founded at Santa Barbara, California, the "Museum of Comparative Oölogy," an institution dedicated solely to the preservation and study of birds' eggs and nests. This seems an eminently proper step. Freed from the rivalry of other branches of zoology, the officers of such a museum may hope eventually to accumulate the first truly representative collection of eggs from all parts of the world. I should like to see the major part of all the really valuable egg material in the country go to such a centralized, special museum, instead of being scattered as it is now. The museum might then become a clearing house of whatever scientific information may be derived from the study of eggs and nests, and a laboratory where students of oölogy might engage in serious research. It would do much toward discouraging general and haphazard collecting, and would educate naturalists to see the greater desirability of collecting toward the perfection of this special museum.

PROBABLY everyone who has looked at birds' eggs, whether in the nests, or in the cases of museums, has noted their great variation. Some are plain-colored, others daubed and splashed with many pigments; some are laid in sets of two or three, while other sets may contain half a score; but how many persons have even guessed that the vast range in the number, form, and color of eggs is governed by definite laws, and that each character is the product of definite circumstances? Yet this is the truth of the matter, and during the last half century many of the laws governing these characters have been discovered.

The significance of the number of eggs

in a clutch is perhaps the most obscure of the three kinds of variations. The number ranges from one to as many as twenty, and with some exceptions birds of closely related species lay approximately the same number of eggs. Considering all birds as a group, and ignoring a few specific aberrations, the rule may be deduced that the ratio of the number of eggs varies in direct proportion to the likelihood of their destruction by natural agencies. Thus most terrestrial nesters, such as the grouse and water fowl, lay a large number of eggs, and it is evident that both eggs and young of these birds are much more liable to destruction by natural enemies than the eggs or young of tree-dwelling species. But, on the other hand, the members of the large order of shore birds, for example the snipes and plover, lay sets of not more than four or five eggs although they, too, nest upon the ground. It is not improbable, however, that owing to their environment, young shore birds are less often molested by hawks and small carnivorous mammals than the grouse, and moreover, they seldom fall a prey to predacious fish and turtles which accounts for the loss of so many wild ducks in the early post-natal stages. The fecundity of a bird is not indicated by the number of eggs in a clutch, for the ovaries contain a large number of partly formed eggs which ordinarily become developed only when the first set is destroyed. A few parasitic species, such as the cowbird, occasionally deposit in the nests of other birds as many as forty or fifty eggs in a season, but since the cowbird is polyandrous, such unusual production may be caused by the extraordinary stimulation of the ovaries.

FORM in eggs includes two attributes—shape and size. The significance of shape is twofold; in the lower forms it possibly denotes to a certain extent the status of the bird in the animal kingdom, that is, its relative proximity to reptilian forms from which all birds have presumably evolved. The grebes, which are rather low in the class, lay peculiar eggs in that both ends are nearly alike, presenting a biconical appearance not unlike the eggs of certain reptiles. But the relation of the shape of the egg to the character of the nest has a far more obvious meaning, and is indeed one of Nature's most beautiful examples of special adaptation for protective purposes. The most familiar

kind of egg is the oval type, but to this shape there are many exceptions. The eggs of snipes and plover are distinctly conical, and, lying in the nest with their points inward, can be easily covered by the small-bodied parent. Auks and murrelets lay their eggs on narrow ledges or shelvings of steep cliffs, and, remarkably enough, the eggs of these birds are long and pyriform, and often attenuate in a sensibly concave curve toward the smaller end. Hence, when moved suddenly as the brooding bird leaves the ledge, the egg describes a circle about its apex instead of rolling into the sea. Birds which for the most part build their nests in holes in trees or similar places, produce eggs that are nearly spherical. Such birds are the owls and woodpeckers, whose eggs cannot possibly fall out of the nest, and which, owing to their rounded outline, occupy little space in the bowl-shaped cavity.

As might be expected, size in eggs depends primarily upon the size of the bird. It also depends somewhat upon the number of eggs in the normal clutch; the eggs of a bob-white, which may number as many as sixteen, or even more, are smaller than those of the less prolific woodcock. But the principle indicator of size is the condition of the young birds when first hatched. Precocial birds, or species in which the young are ready to leave the nest at birth are hatched from relatively larger eggs than altricial or nest-reared species. Thus the eggs of the robin and song sparrow are proportionately smaller than those of the spotted sandpiper. The young robins and sparrows, which are hatched naked and helpless, are reared in a well constructed nest. Young sandpipers on the contrary, never know a nest other than a slight depression in the ground, and when hatched they are covered with down and ready to run about immediately.

WITH regard to the coloration of eggs, a multiplicity of exceptions prevents the framing of universal laws. Certain facts, however, do hold fairly constant. The eggs of nearly all birds that lay in holes are white, and it should be noted that in such cases markings would be of no protective value. Owls, woodpeckers, and swifts all demonstrate this rule. The eggs of birds which lay on the ground are often so marked that they are inconspicuous. The eggs of the whip-poor-will blend into indistinctness among the fallen leaves and this principle is still more strikingly illustrated by the eggs of snipes, gulls and terns, for so closely do these resemble the pebbles among which they are laid that it is very difficult to distinguish them.



The nest of a precocial bird

Individual variation in the color of eggs is astonishingly great, and may be due to a number of physiological reasons. A bird in the prime of health and maturity usually lays eggs that are more profusely marked than those of a young or very old bird. The pigment is normally deposited more heavily upon the large end of the egg, and this has been shown by actual observation to be the end which passes first down the oviduct. Occasionally, through accident, the position may become reversed, and the heavier deposition made upon the smaller end. This phenomenon occurs with particular frequency among the hawks.

Many kinds of birds illustrate extreme individual variation in the color and shape of their eggs. Among most species of tube-nosed sea-birds, including the petrels and albatrosses, the form of the single eggs are so variable that it is impossible to describe their specific characters beyond stating that they are white, and giving their approximate dimensional limits. Eggs of crows and jays, among the higher birds, are apt to be very variable in color. Mr. W. L. Dawson, Director of the Museum of Comparative Oölogy, found that a large series of eggs of a certain jay which inhabits one of the islands off the California coast exhibited remarkably little variation, whereas those of its most closely related neighbor on the mainland were extraordinarily variable. He therefore came to the interesting conclusion that the island sub-species of jay had descended from not more than a single pair of the mainland birds, and that the unusual similarity of all the island eggs was due to a genuine "family likeness." Chance, therefore, plays but an unimportant part in the wide diversity of eggs, and all their characteristics are but different phases of the expression of universal, determinate, biological laws.

PLANT LICE AND SCALE INSECTS

NOTES ON THE NATURAL HISTORY OF THE TINY DEPREDATORS OF GARDEN AND ORCHARD WHICH HAVE HELD THE ATTENTION OF ENTOMOLOGISTS FOR SO MANY YEARS

By R. C. M.

PLANT lice are found every year on almost any kind of plant, but last year they were unusually numerous, and accordingly did more or less serious injury. Potatoes, of all the crops, seemed to suffer more severely than any other plant. Numerous lice infested the under side of the leaves and tender stalks of the potato vines, from which they sucked the juices. The amount of sap extracted by the lice was more than the plants could stand, and in a short time the vines dried up before the tubers were full grown, which lessened the value of the crop considerably.

Plant lice are sucking insects; they do not chew the leaves, as potato bugs or caterpillars do, but feed only on the liquid which they draw from a puncture. No matter how much poison may have been put on the leaves, it will scarcely affect them, for any poison, whether liquid or powder, would have to come into direct contact with each individual.

The worst enemy of plant lice is a minute parasitic wasp. Last summer numerous dead plant lice, parasitized by this wasp could be seen on the leaves and stems of vegetables throughout the northeastern states. Their bodies had become inflated and hardened, and the color had changed from green or reddish to a yellowish gray. Such dead plant lice are often mistaken for insect eggs and are destroyed, but they should rather be left undisturbed for the larva of the useful parasitic wasp feeds inside the dead body of the louse.

Plant lice multiply more rapidly than perhaps any other insects. The first plant lice, called stem-mothers are wingless, and appear when the leaf buds begin to show. They begin feeding and for several days give birth to about eight or ten young each day. In ten or twelve days the young are full grown, and also start to reproduce young. This reproduction, when it once begins, is in the

nature of a continuous performance, and by the time the leaves are fully formed, the surfaces are covered by plant lice; so, instead of unfolding and reaching full size, they are curled, crippled and often discolored. After the second generation of plant lice there will be more individuals than a tree or plant can maintain; therefore in the third and later generations some of the individuals are wingless and others have wings. The latter fly to other trees and plants on which they start new colonies. All the plant lice including the stem-mothers are sexless, and reproduce young without the co-operation of the male. The reproduction continues until the end of the season, but the last generation consists only of males and females. A union of these produces minute eggs from which in spring the sexless stem-mothers emerge. The habits of the numerous kinds of plant lice vary. Some live on

(CONTINUED ON PAGE 308)



FOUR KINKS

IF you should happen to lose your bee's wax fall back on the butt end of the old reliable candle to grease your thread for sewing.

* * *

Emery cloth should always be around your house, tent or pack. I have several times put a shaving edge on my razor by using a piece tacked on a board for a strop. Emery cloth is good for scouring aluminum ware, steel camp tools and knives.

* * *

A good way to dry a sweater after washing is to lay it on a piece of mosquito netting stretched between supports. This allows the air to circulate all through it and dries it quickly, without stretching.

* * *

Before crawling in your tent at night reach a stick in and pound the ground. This will scare the snakes away. They like to travel around on hot, clear nights. I have never met one on dewy nights—they object to getting their feet wet.

JIM FERGUSON.

A HANDY SEWING OUTFIT

A METAL shaving stick container can be made to serve a useful purpose by making it the receptacle of a compact little sewing kit for the outdoorsman. Inside place a spool made over, as shown in cut, by burning or boring out the hole, which runs through the spool, to a larger diameter and insert corks in the



Container and spool

ends. Pins can be nicely kept in one end by pushing them through the cork until their heads are flush with the top and in like manner needles can be kept in the cork at the other end, which should be pushed a little farther into the hole

so the eyes of the needles will sink below the rim. Around the spool wind whatever thread is needed. Strong, black thread for buttons and khaki-colored thread for mending, as that color is the predominant one for outdoor clothes nowadays. Those who have been inconvenienced on the trail through the loss of a button or by having a rent torn in coat or trousers will appreciate what it would have meant to have had just such a little outfit along with which the missing button could have been supplied or the torn place patched. The old proverb about the stitch in time is a good one to remember when contemplating a trip away from the conveniences of civilization.

J. P. H., New Jersey.

WE are depending upon the friends and admirers of our old correspondent Nessmuk to make this department worthy of his name. No man knew the woods better than Nessmuk or wrote of them with quainter charm. Many of his practical ideas on camping and "going light" have been adopted by the United States Army; his canoe has been preserved in the Smithsonian Institution; and we hope that all good woodsmen will contribute to this department their Hints and Kinks and trail-tested contrivances.—[EDITORS.]

COOLNESS IN WING SHOOTING

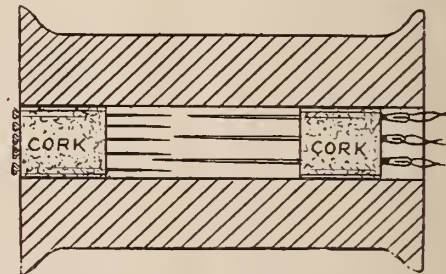
COOLNESS is an important quality of the mind in wing shooting. It is a matter of temperament, but it can be sometimes acquired. A French writer says: "After the bird rises take a pinch of snuff before you shoot." SENECA.

NOW IS THE TIME TO BUILD BLINDS FOR BAY SHOOTING

BLINDS or bough houses should be built on the shooting grounds before the season commences, as birds will avoid any new structure after they arrive. They may be made of logs, brush, grass, cornstalks, etc., and should completely conceal the hunter. A box sunk in the sand is the most killing device. The box should be long enough to allow the gunner to lie in it comfortably, and its width should be several inches in excess of the breadth of his shoulders. From 10 to 15

inches will be of sufficient depth. It should be made of ¾-inch stuff, calked and pitched on the outside and in, thus making it thoroughly watertight. At one end, near the top, an iron staple should be clinched, to which a ½-inch rope of about 7 feet in length should be fastened. This will be found useful in towing the box behind a skiff, or for dragging it over the sand. Other blinds are easily constructed out of cedar boughs, cut about four feet in length, stuck in the sand or mud. They can also be made, when the wind is not blowing too hard, out of long reeds cut on the marsh. Painted canvas screens, hinged so as to fold up, have been used, and one of Long Island's famous gunners once used an umbrella painted green. The fact is, it depends very much upon the place, and, moreover, on the conditions of wind and weather where to stool. While a vast number of birds in their autumnal flight follow the irregularities of the coast there are countless numbers who make their migration far to sea, or take short cuts over the mainland. Those passing to sea only touch at the projecting points, and are consequently tame, while those who have run the gauntlet of an even shore or beach are wild, and less likely to stool. All these things must be taken into account, and the wilder the birds the better you must be hid. Sometimes it is impossible or inconvenient to construct a box such as described, or find suitable stuff to build a blind; then a rubber blanket can be spread on the marsh, and a few sedge bushes or heaps of seaweed placed around you.

BAYMAN.



Cross-section of spool

TO KEEP WORMS FRESH

IN FOREST AND STREAM for April I read an item on "Canned Worms for Bait." I have always kept worms in the same way only I get a pound of Indian or corn meal and put it in the can. If left there for a day or two the worms multiply and grow in a surprising manner and keep fresh and lively.

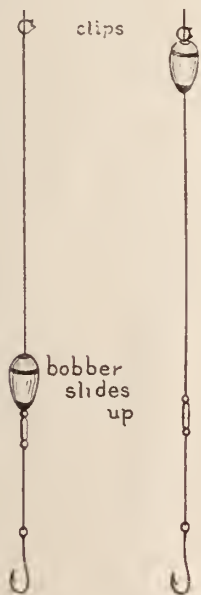
PATSY TREMONT, New Jersey.



ANOTHER USE FOR THE OFFICE CLIP

THE little clip, so universally used in all business offices, can be made to help out in another way and bring satisfaction to the angler as well as to the closed up man in the office. Instead of using it to fasten papers together, put a few in your pocket the next time you go fishing and fasten one on your line at the place you want your floating bobber to be.

Pull the stem out of the bobber so as to allow it to move freely up and down the line. When casting, the bobber will fly to the end of the line near the sinker, thereby improving the cast, and when it strikes the water the bobber will float and the weight will sink, pulling the hook and bait down with it. The line will run through the bobber until the little clip strikes it and keeps it from going any farther. The diagram shows the way it works. There is hardly any strain on a bobber as the resistance it offers to the water is so small that as soon as the fish grabs the bait and swims away the little bobber gives right up and sinks, so the clip will be strong enough to hold it in place.



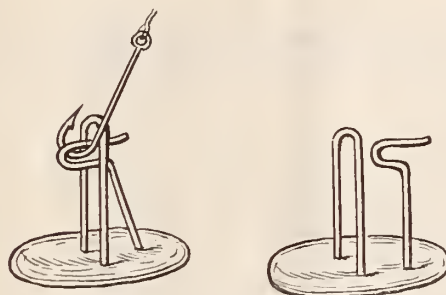
The way to attach clip

In this way you will have the required amount of line beneath the water and the sinker will hold the bobber firmly against the clip on the line. Try it sometime and you will have another use for the already proficient little clip.
N. H. R., Mass.

A SOUNDING LEAD

IT is often desirable, before fishing a likely place in lake or pool, to determine the depth of the water so as to adjust your tackle to the proper length.

By using the little device, shown in cut, this can be conveniently and readily done. Into a lead weight insert a piece of spring wire doubled into a loop and another wire formed into a hook. Press the hook back through the loop and engage your fishhook, with line attached, in the manner shown. The spring wire



The method used to attach hook

hook will hold it firmly and you can lower away with perfect confidence. The little testing device doesn't take up much room in your tackle box. No doubt you have often wished for just such a contrivance when the stone you tied on your line for sounding purposes had slipped off or your fingers had become numbed on a cold day while tying it on. Anything that will save tying is a step in the right direction anyway, as knots are tough propositions at best.

Often while fishing through the ice in winter much of your line has been wasted by having to cut away a frozen knot, whereas if you had had the little lead weight here pictured it would have been a simple matter to have attached it to your line and have sounded the depth of the water through the hole you had cut in the ice.

REDWOOD, Alaska.

FAIR WEATHER INDICATIONS

IF at night there are few stars, and those very bright and sparkling in a pale, steely sky. If swallows fly high. If just before sunrise the sky is a dull gray and the sun rises clear, gradually dispersing the vapors. If, after a rainy day, the sunset sky is suffused with a magnificent streak of crimson (not copper color). If there is a rainbow at night. If there are mists at evening

over low-lying ground or near a river. If a mist in the morning clears off as the sun gets higher. If there is a heavy dew in the evening. If, after a rain, drops on twigs fall and the branches dry quickly. These are all signs of fair weather.

Of course, Mother Nature sometimes exercises her prerogative and changes her mind very suddenly, but on the whole she is governed by fundamental laws and the above conditions will hold true when you are trying to figure out such a subtle thing as weather indications.

W. R. J., Okla.

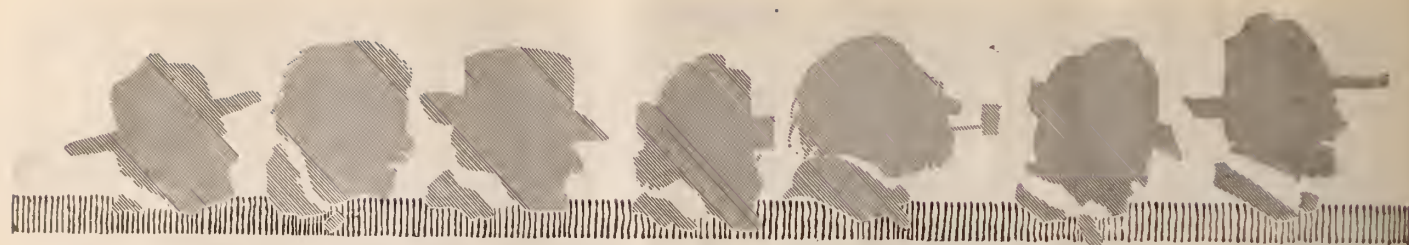
A PEG FOR YOUR FLY RODS

THERE are a great many ways to hang a fly rod, but like a number of other things, the best is the simplest. Take a clothes-pin, the regular, old-fashioned kind, and cut notches along the crotch, as shown in cut. Bore a hole in the place from which you want your rods to hang and drive the pin in the hole head on. Engage the tips of your rods in the notches and you have mastered the kink.



The clothes-pin peg

An ordinary sized clothes-pin will accommodate four rods in this manner. It is a much better plan to hang your rods in this way than to lay them horizontally across pegs as the weight of the rod hanging perpendicularly keeps it straight and true and prevents it from warping.
G. G., New Jersey.



A RESPONSIVE SOLITUDE

To the Editor of FOREST AND STREAM:

NOT far south of Columbus lies a hilly country of great scenic beauty as well as of geological botanical, and historical interest. In that region there is a rocky canyon that is particularly delightful. It is several miles long, and is joined at its center by a similar canyon coming from the north, the two forming a letter T.

It is said that the Indians rallied to their main settlements at old Chilicothe down this east and west trail. Some of the tales told of these gatherings may seem legendary, but there can be no doubt that the red man, following this path, never lost his way, for the needle of his compass was set by infallible Nature, and his route-map, cut deep in the rock, had a working scale of one foot to the foot.

But the red Indian was not the first being whose gaze swept over these weathered walls. A still more primitive man once found here "a place where to lay his head." The walls themselves bear evidence that he found such shelter, for in many places the disintegration of the rock by moisture and exposure has left caves and galleries, where doubtless the wild creatures and even man found a refuge.

A certain one of these caves is just large enough to serve as the abode of a young prehistoric man and his mate. In stones one can find history as well as sermons, and the approach to this little cave shows the depressions worn by the very feet and hands of the young couple as they climbed to their vaulted niche.

I can picture them now, as he returned from his search for food, and threw himself on a pelt and watched his fire and the wavering shadows of his mate on floor and wall.

Let us trust their lives were happy—and why not? Primitive life had its shortcomings and limitations, but it had its primitive virtues as well; and love, friendship, faith and truth were not unknown qualities even among those who chipped the flint and sharpened the bone.

Perhaps our pair lived long enough to wear deeper those handholds and footholds which helped so nicely, by their positions to co-ordinate the movements of the climber's body during the ascent to the cave. I wish we could hear the full story of their lives. Perhaps we then might change our feeling of pity for one of admiration, that such as these, with so little, could in such large measure partake of God's grace.

The formation in this region is pre-glacial, and salamanders and other archaic forms of life live in the golden brook that picks its way between the

LETTERS, QUESTIONS AND ANSWERS

wall on the north and the wall on the south. The banks of this brook are the haunts of birch and hemlock, and near them the moccasin flower. On the higher reaches of the sunny sides the arbutus trails its bronze-green clinging span, and fills the air with its sweet breath of early spring.

I love to sit on the sun-drenched edge of the wide gap, and trace its rocky walls to where they end in portals, through which are seen the vistas beyond. In vagrant fancy I project what of me is sentient among the shaded purple and blue mysteries which line the terrestrial bowl to where its rim sustains the vaulted sky.

All is still; even the buzzards, on slanting and steady wings, sail by without a sound; the only evidence that they mark and note is their fixed gaze, which ever turns toward the intruder as they pass by in unhurried curves.

I love to couch on the bank of the friendly stream, to inhale the spicy odors of the forest, and gaze on the bright stars as they pass the spaces between the hemlock fronds; meanwhile the whippoorwills voice their plaint in measured cadence, until they begin to sense the coming of day—then the song becomes more hurried and less articulate, finally ceasing as if exercised when the bright sword of dawn is uplifted in the eastern sky.

FRANK LOUIS STILLMAN, Ohio.

TROUT AND A FEW KINKS

To the Editor of FOREST AND STREAM:

OF course, we have to have FOREST AND STREAM and after reading it we send it to a good old sportsman who lives all alone beside a mountain lake in Mons County. This lake is one of the most beautiful in the Sierras. It lies 7,100 feet above sea level and contains some splendid cutthroat trout.

Over in that country last fall Mrs. Warner killed a 4-pound trout and I got several from 4 to 7 pounds. The seven pounder was a really big trout, being 29½ inches long, but, alas, thin. These cutthroat trout are far and away the best flavored fresh water trout I have ever tasted. I saw Chas. Strock, of Los Angeles, take a six-pound trout on a fly and in a few moments he had hooked another

one, quite near the boat and at about the same time took a mud hen and got away with it, too.'

In a recent FOREST AND STREAM I noted some "kinks" for keeping shoemaker's wax in condition for fly tying, while it might interest the writer to learn that that wax comes in winter and summer grades. I would like to ask why use greasy stuff for fly tying? It sticks, but spoils the silks.

For nearly twenty years I have used a recipe from "American Game Fishes," page 456, and the original batch of wax, kept only in a tin box, is still good and workable: "One pound clean white resin, when melted over slow fire, add four ounces diachylon and stir until thoroughly incorporated then add two ounces Bergundy pitch. Pour into dish of cold water and pull until cold; the more it is pulled the whiter it gets." About one-quarter of this recipe will be enough for an amateur for life.

Here is a real kink: put a little ball of the wax on a small stick; you will then have a handle and keep your hands from sticking to silk and feathers; also you can stick the handle into something to hold the wax out of dust, feathers, etc., when not being applied to thread.

Another kink: hold one end of tying silk between teeth so it will not kink and break while applying wax.

FRANCIS G. WARNER, California.

CATCHING FROGS WITH A LIGHT

To the Editor of FOREST AND STREAM:

I HAVE just read the article, "The Humble Frog," and I notice the writer says the best way to hunt him is with a .22 rifle. The best way I think is with a bright flashlight at night, the darker the better.

I use a Delta box with two No. 6 dry batteries. I had a bag made to fit box to carry on shoulder and the lamp has a long cord, which gives a very bright light. Go to a pond or creek and walk very slowly along the edge of the water, playing light from ten to twenty feet ahead and the first thing you will see will be two bright red balls shining. Be sure to keep light on him all the while, but keep walking and put light into his eyes. Take your other hand and reaching above and back of him (very easy) just make a quick grab in the small of his back and Mr. Frog is yours.

I also carry a small sack over shoulders to put the frogs in and, of course, they are not hurt at all. I went out quite a number of times last summer and would always catch from ten to twenty-five each time. I would only stay out a few hours. There is no use to go when the moon is shining bright, because Mr. Frog will see you first and get away.

I have tried lots of times to see how close I could put the light on the frog, especially a small one, before he would move. Sometimes I could touch him with the light before he would jump.

After a little practice you will catch practically all of them.

S. W. JONES, Tennessee.

THE KNOTLESS GUT LEADER

To the Editor of FOREST AND STREAM:

WILL you kindly give me all the available data on the manufacture of the "knotless gut" leader? There are several brands, I believe, such as the "Joe Welch," the "Telarana Nova," and what is called "Japan Gut."

I have heard assertions made that these are none of them (silk worm gut), yet I have a hazy recollection of reading something to the effect that they were.

I will appreciate all the information you can conveniently furnish as to the methods of manufacture, relative strength, and general comparison to the standard tied gut leader.

FOREST AND STREAM continues to arrive on schedule and is enjoyed as much as ever.

J. H. HOWELL, California.

This material has been imported from Japan for some time under various trade names. Robinson & Company, of Glasgow, Scotland, makes up a grade known as "Telarana Nova," the agent in this country being Mr. Joe Welch, of Pasadena, Calif. It is also known under the name of "Scotia Gut," as well as "Japanese Gut."

Recently the Government analyzed this product for the purpose of determining the basic materials, with a view of establishing a duty, and as I understand it, the appraisers now recognize it as 78 per cent raw silk, coated with a shellac like solution that protects it the same as in the manufacture of enamel lines. The quality is determined by the number of coats thereon, the cheaper grades having four coats, and the better grades or higher quality having as high as nine and ten. There is absolutely not a vestige of silk worm gut in it. The initial strength is much greater than the gut and has the advantage of running more uniform in its tensile qualities.

Some of the higher grades, that is, those with nine and ten coats of the solution, are guaranteed to be stiffer than the corresponding sizes of gut. Those, however, that I have personally experimented with do not show this quality to equal the leader for the reason stated. When thoroughly soaked, it will not "lay" a fly as readily as with the gut, that soft flabby tendency being the objection.—[EDITORS.]

A GOOD FISH STORY

To the Editor of FOREST AND STREAM:

IHAVE just read with great interest the article in your February number by Mr. Leonard Hultit on the "Leopard of the Lake." In my young days, I am not very old yet, I lived in the northern part of Schleswick-Holstein, Germany. On my father's farm were many small waterholes, about an acre in size. Also a small river. These abounded in either

the pike or the pickerel, I do not know which, but I think they were the former.

There were two favorite methods of catching them: One was with a copper wire snare on the end of a pole. While the pike was standing almost on the surface as described in the aforesaid article near the edge of the pond or stream, we would sneak up to him and very carefully put the snare over his head and pull him out. The other method was to shoot the fish with a .22 rifle.

Speaking about the "bill of fare" for his lordship I once caught a fish of about 12 pounds that had a fish of his own kind of about three pounds in his stomach. This one in turn had one of his own kind that was about six inches long inside of him.

All three fish were in fairly good condition. It certainly proves that the pike or pickerel is no respecter of persons or rather of fish and are truly cannibalistic.

midges they hunt so are so tiny that one needs quick eyes to note the object of their pursuit.

Next time you come across a clump of Oswego Tea on your rambles, bring a root home and give it a corner. It will stand any sort of hardship and thrive. It will do better on good ground. It will make a splash of scarlet against the fence or shrubbery border. And the hummers will flock to it. A root of Oswego Tea replanted late in fall even will bloom the next spring, or one taken in spring will bloom the same summer.

GEORGE GILBERT, New York.

A GOOD CANOE COVER

To the Editor of FOREST AND STREAM:

IAM enclosing a picture which may prove of interest to some of your readers as I have noticed inquiries in your magazine as to keeping the contents of a



Showing the waterproof silk cover adjusted on a canoe

It has never been my privilege to catch this fish in this country, but many trout have fallen to my fly. I am looking forward to a good season this year.

W. H. LOVENJEN, Washington.

HUMMERS AS FLY CATCHERS

To the Editor of FOREST AND STREAM:

WE have plenty of humming birds in our yard all season long. Indeed, we plant certain flowers just for them. As our yard is wired in, it is a great resort for birds. The hummers that visit us rest on clothes line, twigs and fence-wires. So we often observe them when they are doing things not ordinarily credited to them.

Early this year we noticed a hummer that kept flipping off his perch, into the leaves of an apple tree. Curiosity brought a glass into play and it was seen that he was catching flies on the wing, just as a kingbird does. Only his flies were tiny midges. This caused us to keep an eye on the hummers to note their fly-catching propensities and we have found that they are at it all the time—will stop in their journey between two blossoms to nip a small fly whenever opportunity offers. Many of their seemingly aimless darts here and there are for the purpose of catching midges on the wing. But the

canoe dry while paddling in rough water.

The picture shows a silk waterproof cover which I designed and had made. It entirely covers a canoe and has egg-like cockpits with sleeve which ties around waist under an "oily" coat, making it impossible for any water to get into the canoe. These covers have stood severest tests, as for instance, loading a canoe until about 1½ inches of freeboard remains and then paddling across lakes three to five miles wide during a "blow." The waves would wash and stop clear over the canoe, but no water would get in. I have used them also in running very heavy rapids. In the latter we were always careful to arrange the cockpit so that we could get clear of it quickly in event of hitting a rock, which is the only danger the cover will not provide against. On rivers and lakes, even during a bad "blow" or in deep, heavy rapids, having the cockpit sleeve tied with a slip knot around waist is not dangerous, as a canoe will not upset providing it is properly loaded and a correct ballance established. I might tell you that on a Hudson's Bay trip we had no fear in crossing bays ten miles wide and in two or three cases were out of sight of land entirely. The cover kept everything snug and dry.

W. F. CURRIE, Toronto.

THREE GEESE AT ONE SHOT

To the Editor of FOREST AND STREAM:

I AM forwarding to you herewith the story of my success in bagging three wild Canadian geese at one shot with a Winchester repeater. Am enclosing a photograph which was taken by flashlight the night following. The young man at the right of the photograph was with me at the time and he can substantiate my story. He is now in the Expeditionary Force somewhere in France. I feel somewhat backward in sending you this story for fear that some of your readers might think that I am inclined to be boastful. However, inasmuch as I so keenly enjoy the stories of others which appear in your magazine, no doubt some of your readers will enjoy this one.

On the 18th day of October some four or five years ago "Ace" Porter and myself started out about a half hour before sunrise for a swamp which is situated about a mile and a half south of Hinsdale, Illinois, which was my home at that time. This swamp is about three blocks long and about a block wide, fringed on the east end with weeds and rushes. It is quite a place for ducks in the fall of the year, but geese very seldom stop there except occasionally in the night time. Once in a great while geese have been shot in that locality, but so seldom that my exploit was almost unbelievable.

We arrived at the top of a hill overlooking the swamp just about sunrise and from force of habit we peeped over the brow of the hill before walking down the slope. Just about the time we arrived a sudden flurry of snow came from almost a clear sky, lasting only a few minutes at the most. I remarked to Ace that I was sure I spied a flock of geese sitting on the edge of the rushes on the east side of the swamp, which was the side we were approaching. He didn't think so at first, but I finally convinced him. We then talked over a plan of action. It was almost impossible to approach the east end without being seen. The geese apparently saw us at the same time we spied them and we had to do some quick thinking. There was no time to make a detour to the south, which was the only way to get within range. However, as I have heretofore stated, it began to snow quite heavily and I told Ace that I thought the geese would be blinded by it so that we could approach quickly without making a detour. So we boldly walked down the slope of the hill and then decided to separate, he going to the left to the edge of a cornfield some rods distant, and I walking directly toward the geese. We calculated that in this way one of us would get a shot at them. I crouched as low as I could, but did not get down on my hands and knees. Apparently the geese were watching Ace. I could see by their actions that they must have had a suspicion that all was not well. They were so intent on looking in his direction that they took no notice of me until I was within about thirty yards of them. They were just beginning to rise when I took aim at two

which seemed closest to me. I could not see plainly on account of the sudden snowstorm. My first shot brought three tumbling down into the water. My second shot hit another in the rear, but he struggled away with about a dozen others. Such a clatter and honking you never heard in your life. It was snowing so hard that I decided quickly not to bother further about those that got away, but put my whole attention on the three that dropped. Two were killed almost instantly, shot through the neck, and the third was only winged. I soon put him out of his misery. In the semilight caused by the sudden snowstorm they looked as large as elephants lying there in the water. I jumped in a small boat which we always had on hand and brought them to shore. It seemed like



The three geese, weighing 12, 10, and 8 pounds, which were killed at one shot

a dream to me when I gathered them in, and it was a long time before either of us could come back to normal thinking and to realize what a lucky shot it was.

A. E. WOLF, Washington.

CONCERNING BROWN TROUT

To the Editor of FOREST AND STREAM:

I SHOULD like to ask the fly-fishing readers of your magazine if the common eastern brook trout, such as are caught in large numbers in the streams tributary to Lake Rossignol, Queens County, Nova Scotia, are scientifically any different fish from the so-called "brown" trout which I have noticed spoken of in the columns of your periodical from time to time?

At the mouths of the rivers of Queens County, Nova Scotia, we catch what is locally known as sea trout. As nearly as I can tell from catching many of these trout each season for a great many years past, as they progress up stream they gradually turn a dark golden brown, and their spots, which are extremely brilliant when they leave salt water, fade partially out. Are these sea trout, "brown" trout by the time they reach the head waters? The flesh of the large, dark-

colored "brown" trout is pink like a salmon's, while the flesh of the so-called brook trout (which are smaller in size) is mostly white, but sometimes showing a pinkish cast.

Isn't it possible that all these spotted trout are really the same fish, but some are blondes and some brunettes, with a percentage of neutrals? If my supposition that the "brown" trout and the brook trout are the same fish, is not correct, how can the reader account for the fact that in the Lake Rossignol district the small trout are mostly bright hued with brilliant spots, and the large ones, which are very numerous, are mostly brown with dull spots?

It seems to be a piscatorial paradox. Can you throw any light on the matter?

PHIL H. MOORE, Nova Scotia.

To the Editor of FOREST AND STREAM:

I HAVE before me the letter of Mr. Phil H. Moore with its most interesting contents. He is evidently a most thoughtful observer of fish and their ways in the neighborhood he writes of. His concluding sentence, however, "piscatorial paradox" leads us to the very meat in the nut to be cracked. Somewhere among my files of information I knew there was something bearing on the subject which puzzles our friend and I cannot do better than to quote from no less an authority than the late Dr. G. Browne Goode who wrote of this very subject as far back as 1880. "Without many specimens to examine, and the most careful research made, it is impossible, if not unsafe, to classify in a determinate manner the trout of many northern waters. Anglers as well as local residents along such streams and lakes are and have been for generations in confusion over just how to determine trout species. In these northern rivers there may be as many colorations of a single species as there are townships through which the river runs."

Professor Agassiz in considering the same subject says: "In streams where the current is swift and there is much sunlight the colors are bright and the body lithe and active whereas the same fish going into sluggish, dark waters become heavy bodied and dark in color."

He has also noticed that there was difference in color according to the side of the stream the fish inhabits. Those on the shady side being always the darker, and it is his belief that they have the power to change their tint at will.

That the nervous system controls, to a great extent, the coloration of many kinds of fish appears to have been established by the French scientist M. Pouchet, who, by destroying the eye of a trout always found that the same side became perfectly white within a few weeks. It seems to be well established that the pink flesh of the Salmon family depends on the shrimps and other crustacea on which they feed, and the greater abundance they partake of, the deeper the color. Thus it would seem that, despite the fact that almost endless study has been devoted to the subject, it has revealed rather a great amount of unexplained fact than a solution to the question involved.

LEONARD HULIT, New Jersey.

CATCHING A BLACK BEAR

To the Editor of FOREST AND STREAM:

NELSON, B. C., is located on Kootenay Lake, and backed by what they call the "Crusaders" mountains. Up to the top of this high-range Billy Sturgeon and myself started one early fall day, in search of bear. There are more bear killed in this district I think, than in any other part of this wonderful British Columbia country.

We arrived at the top after climbing for about four hours, straight up. The city of Nelson, which we could now see in the distance, looked like a speck. You only have to go a few miles distance back to get in the wildest country that one would care to see. Every year the bear come down and raid the neighboring ranches for pigs and calves. After going back for some miles we found all kinds of bear signs and lots of deer tracks. The big mule deer are quite plentiful here.

After eating our lunches we started back on the top, which we found to be quite level. We hadn't gone more than a mile back when we came to a small spring. Billy leaned his gun up against a tree with mine and we shed our packs to get a drink. We were both flat on our stomachs when, hearing a crash in the underbrush; some fifty yards away, we jumped to our feet and saw a small, black bear skooting up the mountain side. Before we could get to our guns the bear was out of sight, and from the way he was going he would probably be in the next province by nighttime. This was the only bear that we saw that day, until we were coming back that night. When we were about a mile from the outskirts of the town that evening, and when we were thinking that our hunt was over for the day, we scared up another small black bear, and this chap was anything but wild. He took a casual look at us and started towards the town on the trot. He seemed so tame that we hated to shoot him. "Let's chase him down to Pete Sarvier's corral," says Billy, so we spread out and kept him in front of us. Mr. Bruin would not let us get very close to him but kept on going towards the town. Soon we came to a wire fence that led to Pete's corral, and this he followed till he came to the corral. The gate was open and we soon had him in and the gate shut. Now the fun began. The neighboring ranchers came on the run when they heard that we had a bear, and brought several ropes. We perched on the top of the corral and every time Mr. Bear would try to climb the fence we would use our clubs. Finally one of the men got his rope on the bear's head, but as a bear's neck is so much larger than his head he only shook it off with a snarl. The bear was now getting very uneasy, and would make savage rushes at the sides of the fence. Billy now got his rope on the bear's hind foot, and snubbed him to one end of the corral. Several of the men had to go to his assistance as the now infuriated animal was biting and clawing at the ropes. We managed to get another rope on the bear, which was now in an awful fury, and he soon tied himself in a knot. We opened the gate and as many men as could get their

hands on the ropes started to drag him out to a shed where we were going to keep him till we could get him to town. But, when we got him outside, the bear made a supreme effort and shook off one of the ropes. This gave him a chance to charge the crowd, which scattered in all directions. I was standing in front of him, and was about to take a picture of him with a kodak, when he got loose. I snapped the shutter, and made a jump for the shed roof only to miss the bear, and all I got in the picture was some of the crowd. The bear, smelling the pigs that were kept in the shed, made a dive for it and we had him shut up for keeps. Mr. Bruin can now be seen daily on his parade around the inside of a twenty-foot pit. The school children come often and feed him candy and peanuts. I had taken several snaps of him while he was *en route* to the corral, but only a few of them were any good.

R. H. BILLINGS, British Columbia.

they are not so plentiful as in the hunting days of John Griffin which he writes of. For those who enjoy the outdoor life—there is something wrong with the man who does not—the mountains, lakes and streams of southern Oregon offer ideal opportunities.

The scenery is unsurpassed anywhere. We have the purest of water, large game and game birds, fish and luscious mountain huckleberries and wild blackberries and an absence of snakes and insect pests. Where can one go and beat this combination? All this within a four or five hours' automobile ride. In the days of which John Griffin so graphically writes he used pack horses to reach the hunting grounds now accessible to the automobile. Within the next few years will we make our pilgrimage to these same hunting grounds via the airplane? Who knows, for the world does move.

E. V. CARTER, Oregon.



The bear, smelling the pigs, made a dive for the shed where they were kept

FROM SOUTHERN OREGON

To the Editor of FOREST AND STREAM:

MY ATTENTION has been called to your January issue which contains an article by John B. Griffin describing a bear hunt in southern Oregon in early days. There are thousands of people here in southern Oregon and northern California who can vouch for the truth of Mr. Griffin's stories and testify to the fact that his famous bear dog "Trailor" possessed almost human intelligence.

"Trailor" has long ago gone to his reward, but his really wonderful achievements will be remembered for years to come.

After an interval of some years I had the pleasure of meeting Mr. Griffin again last fall. Why he is occasionally referred to as "old John Griffin" I cannot understand, for he is still clear of eye and physically fit and apparently good for many years to come. My summer home is on the shore of the Lake of the Woods referred to in Mr. Griffin's article.

The huckleberries are still plentiful there and many bear and deer are killed there every season, though, of course,

WHO HAS A BULLFROG?

I WOULD like to get some advice about frog raising. Is there any place where I could buy big bull frogs for breeding purposes?

It seems that there are so few places where one could get information about frog raising that I thought I would ask you to kindly publish this in your magazine, as it might elicit a reply from some one of your readers who knows the frog raising game.

MARY SZPMANSKI,
Blade St., Toledo, O.

We have received a number of inquiries from FOREST AND STREAM readers who are contemplating a canoeing trip along the upper reaches of the Connecticut River, and will appreciate any information in regard to the stream from those who are acquainted with its. It is especially desired to gain information in regard to the fishing and camping conditions along the river—the number and extent of the rapids encountered and on any other matter pertinent to the success of such a trip.—[EDITORS.]

(SEVERAL LETTERS ARE HELD OVER)

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Captain Tracy H. Lewis, Associate Editor of the Morning Telegraph of New York, and just from over seas, won the George H. Lyon Memorial Cup at the New York Athletic Club's big shoot. Captain Lewis shoots an ITHACA because any man can break more targets with an ITHACA.

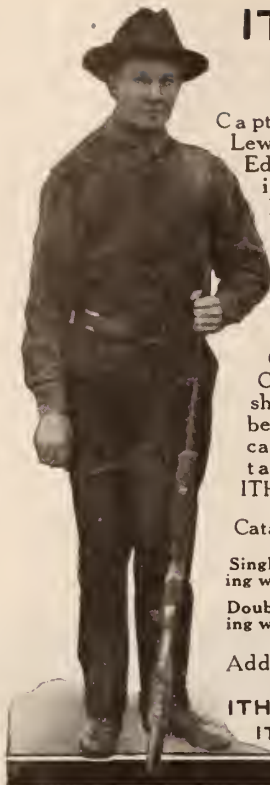
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SHORT BARRELED GUNS

THERE IS NO SURER WAY OF SPEEDING UP A SHOOTER THAN TO SHORTEN THE LENGTH OF HIS BARRELS

By W. A. B.



UN-MAKERS and sportsmen are an extraordinarily conservative body of people. It was only by the slowest stages and the most gradual steps that the flint lock was eventually perfected and a long period ensued before it was finally displaced by the percussive lock, and later the breech loading principle was adopted only after the greatest deliberation and the severest tests had been made.

The conservatism displayed in relation to the various changes in the methods of loading and igniting weapons is quite apparent today in a blind acceptance of certain fixed calibres and an arbitrary length of barrels for all guns, for today sportsmen and gun-makers cling closely to adages and principles that were laid down in the days of black powder. To begin with, it may be mentioned that the black powder which was in use in the days of the flint lock, the muzzle loader, and in the early days of the breech loader, was a chemical mixture of slow ignition and it required barrels three or four feet long to develop its full energy.

The modern smokeless powder which has been in use for a quarter of a century and more has been brought to a very high degree of perfection. It develops its power quickly and a barrel fifteen to twenty inches long is all that is required to insure its full ignition, consequently any excessive barrel length through which the shot is forced to travel simply retards its velocity. To be sure, this is so slight as not to be appreciable in itself, but it immediately develops new possibilities for the gun-fitter. It enables a man to use a gun with barrels of the length which he can handle with the greatest facility. He is no longer confined to certain limitations. Just why a 12-gauge gun barrel should be 30 inches long has never been satisfactorily explained. It is perfectly apparent that a man 5 feet 4 inches tall of moderate strength, and short arms, cannot handle with the greatest facility a weapon pre-eminently adapted to a long-armed man 6 feet 2 inches tall, of heavier build and more powerful physique. The gun-fitter however, as a rule, fits both of these men with weapons with the same barrel length. It is not the proper thing to do theoretically and the theory has been proven correct by scientific tests and practical experience in the field.

SOMETIME ago Mr. Winans, who has perfected many ingenious devices, called the attention of experts in gunnery to certain results attained in shooting 22-calibre rifles at a cinema. The misses with these rifles were all in front of the birds. In shooting with

shot guns the misses were behind the birds. Mr. Winans further confirmed these results when taking running shots at deer or wild boar with the rifle just as clearly as when taking crossing shots at pheasants, grouse, and other game with a shot gun. The solution that he arrived at was that the velocities recorded for the shotgun were roughly half of those attained by the rifle, therefore, the shotgun fell behind. This solution, so far as it goes, is undoubtedly logical and correct, but the fact must not be overlooked that Mr. Winans' rifle barrels were from four to six inches shorter than the barrels of his shotgun. This enabled him to swing on moving objects more quickly with the rifle than with the shotgun as the muzzles of the rifles would have to do a less amount of traveling than the muzzles of the shotgun.

It is very well understood that a gun with short barrels can be swung much more rapidly than one with longer tubes. In fact barrel lengths play a very important part in the speed of swinging a gun either to the right or the left in the field or at the traps, and few birds are lost through aiming too far ahead. The misses usually are the result of shooting behind; in other words insufficient lead. It, therefore, follows that anything that will quicken up the swing and increase the lead will improve the score, particularly on crossing shots. There is no surer way of speeding up a shooter than to shorten the length of his barrel and this will apply particularly to men of moderate strength with short arms. It is impossible for men of this type to handle speedily weapons that are more suitable for powerful, longer limbed men. A man accustomed to barrels, 30 or 32 inches long, will not at first feel at ease with a 26 or 28-inch weapon. This feeling, however, will soon disappear and in this connection it may be also mentioned that nothing will true up a man's line of sight more accurately, give him greater confidence or reconcile him more completely to the use of shorter barrels, than to have them equipped with the large ivory sights that are sold by the Lyman and the Marble people.

Thirty inches has come to be recognized as the standard barrel length for 12-bore guns, but this length is entirely arbitrary. It dates from the days of black powder and it does not apply to modern weapons using smokeless powders. Therefore, the sportsman who is shooting behind his birds either in the field or at the trap can dispense with two, three or four inches of barrel length with the result that he will handle his new weapon much more smartly and rapidly without suffering in any way from loss of pattern or penetration. Ten years ago there was a very strong disposition towards trap guns with 32 and 34-inch barrels. This has gradually moderated, while in the field 12-bore guns of 28-inch barrel are more frequently seen.

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THE COST OF FISHING

BY USING A LITTLE INGENUITY, THE EXPENSE OF A SEEMINGLY COSTLY TRIP CAN BE SUBSTANTIALLY REDUCED

By WILLIAM BARBER HAYNES



THE real reason perhaps so few hunting and fishing stories mention the cost of the trips they describe is from a sense of reticence on the part of the writer who fears that if the price is low some readers will consider him cheap and if the price is high other

readers will think he is bragging.

And yet how important the items of cost become when a trip is contemplated. Usually the cost is estimated before the final decision is made to go.

This article is written with a view to show the sportsman in moderate circumstances that trips they consider prohibitive may be made for very small sums of money if the sportsman has a bit of sporting blood in his veins and will take a chance without a guide.

It is not my purpose to decry the use of guides nor the spending of money in whatsoever fashion the owner may see fit to dispense it.

All I wish to do is to show that without guides and without much money some of these trips may be taken.

Before the raise in price of railroad fare, guides and hotel rates, we used to figure the rock-bottom price of a trip to the Kawartha Lakes, Ontario, Canada, for muskellunge as follows:

Trip to Bobcaygeon on the Canadian Pacific Railroad from Akron, Ohio	\$16.00
Pullman sleeper and meals en route round trip	9.00
Guide and canoe for ten days....	25.00
Meals for guide	10.00
Hotel for ten days	20.00
Incidentals and license	10.00

\$90.00

These trips always resulted in our catching many more fish than we could possibly use.

The hotels didn't seem to be eager to use them and when they did so next day the fish had lost their freshness.

One year partner and I took a pup tent, a pair of blankets and a frying pan and went over this same trip without a guide. We started in at Bobcaygeon. Down through Pigeon Lake we wandered, over into Buckhorn Lake, up into Sandy and into Chemong and Little Mud Lake; catching our fish, frying them and eating them, fresh from the water, finding our way around by map and compass.

The total cost was \$26.75 complete from start to finish. We caught more fish than we could use and returned fine muskellunge and bass to the water.

This trip, made at the present price schedule, costs under \$45.

You can't get lost, as you continually

meet people who are camping on the lakes. They all talk English and will direct you wherever you want to go.

Meanwhile the price of the old \$90 trip with guides has mounted to \$150. Truly the day of the individual is here and the man who can guide himself is on velvet.

And is it so difficult? Let's see: anybody can row a boat and as no portage is to be made on the Kawartha trip, I prefer a rowboat to a canoe, as it is easier to handle. Two people is the correct number to go. They fit into a pup tent perfectly.

When you increase this number to three or four you complicate matters more as with each a new disposition and point of view is added and must be suited according to their various ideas.

Talk this over with your partner, then go to the railroad station and ask the agent the fare to Bobcaygeon Ontario, the gateway of the Kawarthas.

Make this your first trip because it is a wonderful place for muskellunge and bass, it is reasonable in railfare from the middle east, and, best of all, it is all on one level and you run no risk from meeting rapids.

When you go into new country find out about the presence of rapids. Don't pick strange waters for your trip that have rapids in them, unless you plan your trip up stream and learn about them on the way up instead of on the way down. Just imagine plowing into a big falls that you were unaware of. Just once

(CONTINUED ON PAGE 310)



The meal that satisfies



FISHING HUNTING SPORTING Camping Outfits

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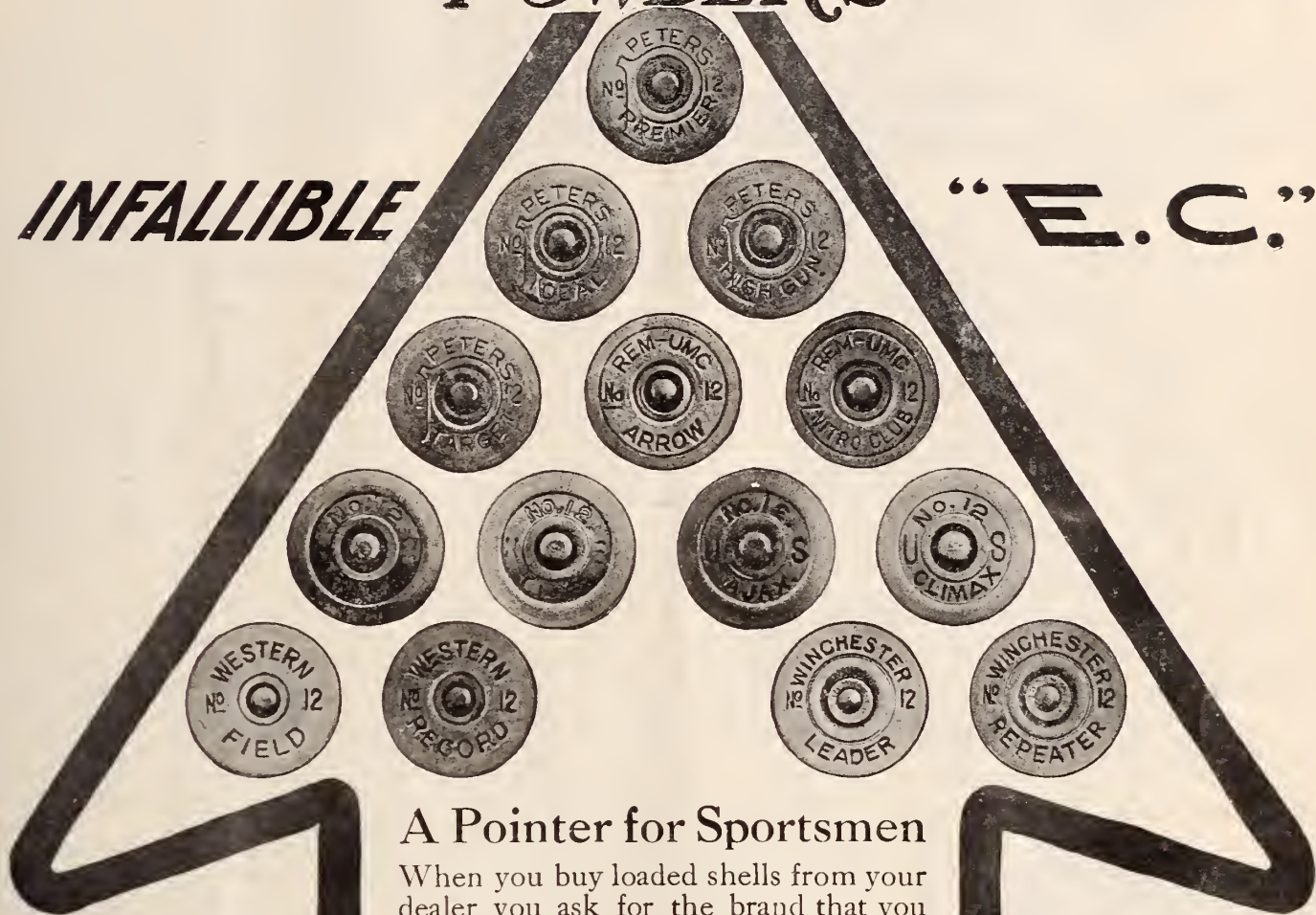
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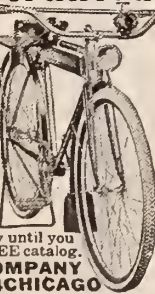
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SALESMEN AND CAMPING

HOW THE MAN WHO SELLS OUTFITS CAN MAKE OR UNMAKE THE PROSPECTIVE TENT DWELLER

By EDWARD RUSSELL WILBUR



ALMOST all men labor under a mistake. Clenched in their fists, when they come into the world, is the decree of fate commonly called necessity. They are trained and cast into the ring to fight an unlimited number of rounds for the "treasures of life which moth and rust will corrupt and men break through and steal." Between rounds they indulge in rest periods in which high-powered cars, impossible menus, bubbles, and thin stemmed glasses figure largely as recreation.

The fight goes on and on, never to a draw. There is a knockout and a new victim. He in turn to garner the golden shekels and trickle them through his fingers for a time and then pass on to the end of the passage. The earth, unknown to him who walked the flagged and tunneled streets of the city, covers him, and he goes from the world, knowing it only through the haze of years as a busy mart of trade, from which he was never able to glean one short vacation from the ceaseless round.

From the cave, man advanced to roofs of thatch, then to walls of bark and beds of boughs, and on to walls of cement and stone, until now he is so walled in that life in the open air, the one great free gift that comes to rich and poor alike, is cast aside a thing unknown. Rents and taxes are paid, so he may live in a luxurious box. Germs and unclean things are hoarded and piped in and lived with, from day to day. How happens it that he who hoards his gold to buy these things is so poor a civilized man. What has he to gloat over when the dwellers in tents and wigwams meet him on the foot bridge across the last river of doubt?

Through all the great range of sport with rod and gun we come back to the camp fire and the bit of shelter in the open places.

The camp's the thing to shame the palace of a king. But as this good salesman will tell you, the horrors of leaking walls, burnt biscuit, sleepless nights, and smoking torches are not of this day. We are not to be a wearer of skins, an eater of raw meat, but rather a primeval graduate, a far-wiser savage.

Ah! a confession of interest! The salesman awakens a long dormant brain cell, clogged and unused since the days our forefathers chased each other through the branches of the tall trees. So far so good. "Oh, ye, of little faith," we will pass beneath your nostrils the sweet smell of the green meadows, to your ears the music of a little brook that runs from rocks to roses with rapid change, your eye, ah yes, much shall you see denied your shackled brother of

the walled in town. You shall see the dawn push aside the black curtain of night and come to you through the tangle of stars, you shall see the lark, fresh from his dew bath in the daisy meadows, make love to his lady in the spring.

But where, oh yes, my salesman, where? Why, there is a spot so near you where you can pitch a tent and draw about you a wilderness that almost from the salesroom window we can hear the brook and the soft sighing of a thousand leaves. Its yours, the place, go find it, get out in the open, get close to the bone where it is sweetest.

Men go to Africa to chase the giraffe. How long could a man find enjoyment in the chase of this long-necked antelope?

You can go to your Africa with your house on your back, and your two legs to carry you. And when you arrive and pitch your tent a more interesting pastime than gathering giraffes awaits you in every nook and corner of your wilderness.

If you pitch your tent in a corner of an old New England farm, fenced in by a jazzing, rambling old rail fence, night will come and pull down a black curtain that will shut out from you the garish, side hill country mansion with its ornate cornice and its glittering shingle roof. You won't see the ribbon of Macadam road, swarming with chattering monsters on rubber wheels.

The old stars that blazed when the skids were kicked out from under the world at its launching, will twinkle at you, and just beyond the flickering camp fire blaze, is a land of wolves and feathered warriors whose blood red eyes gleam through the night and where the war whoop seems ever possible.

BUT to get back to our salesman. You have come in to see him. The doctor has wisely recommended a change of air and scenery. You feel a great desire to get away from the cramped up life you are leading, to forsake the familiar haunts of your daily grind, where in the walls and the floors and in the very bed you sleep on, are ground the worries, disappointments and sorrows of the past few years.

What can the salesman do for you? Why, he can show you a tent, a bed, blankets, everything up to a fry pan, but best of all he can put you into a bit of paradise where you will really live.

FOREST AND STREAM believes it is up to the salesman to give the buyer more than the bare service of selling. A tent in a canvas bag at so much per, is not to the prospective camper much of a proposition, but the salesman who sells that same tent as if it stood in a grove of white birches, puts the sweet green grass at its door and tells you of the wood's people waiting for you, has made a new man of you. Men take to this camping

(CONTINUED ON PAGE 300)



“MAKES YOUR FISHIN’ DREAMS COME TRUE”

You'll want it brother, your copy of Pfluegers' Tips on Tackle, and it will be sent promptly to you without any cost, all you have to do is to sit right down now and ask us for it. We know that it will make your fishing better, because it has rattling good chapters on the bass and how to land him in lake or stream, the musky, trouts, pike and wall-eye. Just the kind of fishing information that one "pal" gives to another. Written in a "close-to-the-water" sort of a style with the breath of the pines and the spirit of the campfire. It is a bully good book for every angler; the expert as well as the beginner, and for the fellow who wishes to learn bait or fly casting, how to play the game fish, habits and peculiarities of the fish, care of tackle and the how, when and where to fish, it is just the book he is looking for.



In addition to all this fishing data written by the leading authorities on angling, Pfluegers' Tips on Tackle contains a complete line of information on our leaders of PFLUEGERS' BULL DOG BRAND tackle. There is a piece of Pflueger tackle for every kind of fishing and every piece of this high-class branded goods carries our

"guarantee without time limit" to be right in material and workmanship. This guarantee is backed by fifty-five years' experience in making fishing tackle that has made good wherever used.

Every first-class tackle or sporting goods dealer carries Pflueger Bull Dog Tackle and this brand is put there for your protection—there is nothing just as good—ask to see the Bull Dog before you buy—this will mean that what you buy will be satisfactory to you and stand upright under constant usage on lake or stream. You might as well get the best tackle while you are at it—it costs no more than the makeshift kind—and Pfluegers' Bull Dog Brand tackle always delivers the goods.

Tackle Tip for June

For the early season fishing, when the bass are in the shore shallows minnow feeding, toss them a Pfluegers-Surprise Minnow and reel in the big ones. This artificial has a record for coaxing the strike out of the grand-daddy bass when they won't even notice other lures. When reeled in at an ordinary speed the Pflueger-Surprise rides at a depth of 12 to 15 inches underwater and has the crawl and kick of a crippled minnow. The mouth shaped groove on the underside gives it a lifelike minnow movement that the game fish cannot resist. It is equally as good for pike, pickerel and musky. The Pflueger-Surprise Minnow is shaped like a minnow and needs no spinners, or other hardware to make it do the move that makes the game fish strike it. It has a motion that no other artificial ever had and the groove that makes that motion possible is patented. All the standard colors at your dealers or if he happens to be out of stock, send direct to us—because you ought to have it on your next trip without fail.

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"No intelligent person can doubt that the rules Mr. Camp lays down for daily practice can hardly fail to improve the health even of those who have been most careless, if taken up and followed conscientiously at almost any period of life. This book—a handsome little volume, by the way—should be kept handy in the desk of every busy middle-aged or elderly man of affairs."

—New York Times.

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HARPER & BROTHERS

Est. 1817

NEW YORK

IN THE FOOTSTEPS OF NESSMUK

(CONTINUED FROM PAGE 275)

dozen or more fresh eggs, broken into the tin, and they keep and carry well, lasting about a week. I use them as a base for cornbread and flapjack batters, so that seven will last for a week's camp. A still smaller tin serves for butter, and these two are enough. Of the little muslin bags (the six by three inches is about right) I carry five; rice, sugar, pancake flour, white flour and cornmeal, about $\frac{3}{4}$ lb. in each. Coffee, baking powder and salt go in small $\frac{1}{4}$ lb. tins in a lobe of the growler, and the other small articles in little bags 2x3 inches, sometimes all of them in a larger bag so they will not get separated and lost. On some trips I take a small bag of one of the wheat cereals, a spoonful of which, stirred into boiling water, makes a dish. The milk problem is easiest solved by a small can of evaporated cream, which may be used "as is" in coffee and tea, or diluted in your cup with water to make a milk for pancake batters or creamed spuds.

With these foods, and a reasonable knowledge of cooking, I can hit the trail for a week or so and live high. A quart of potatoes and half a dozen onions are all the concessions I will make to heavy, bulky stuff; they usually go here and there in odd corners of the pack, and form the basis for stews. As a rule the pack, made up for a week or ten days' trip, weighs 32 lbs. all told, and, as I keep it always ready for service, I get many a little outing that would otherwise be impossible. Leaving Friday night, you are under canvas that evening, have Saturday and Sunday in the open, and get home Sunday night ready for business Monday morning. For the last seven years I have not missed at least one camp every month in the year, and in some seasons manage to get out every week-end in the month. As a means of relaxation from the daily grind there is nothing that will so quickly put one in a healthy state of mind as one of these little camping trips.

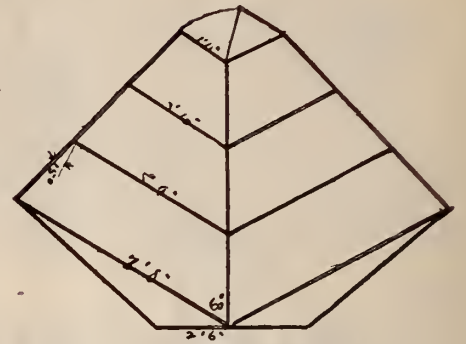


Diagram of the Forester tent

THIS is the fruit of all that Nessmuk aimed at—to have a light, adequate outfit which would give one the freedom of the forest. The old woodsman used to spend his entire summers roaming the North Woods. Such is denied us by business conditions, but, a modern modification of his outfit enables us to get almost as much outdoors—week-end trips for trout, bass, salt water fish, quail, rabbits and deer in their season, with trapping and nature study for winter camps.

As he said, in our big yearly camps we usually get ten cents worth of pleasure on the dollar's outlay. At a huge cost for railroad fare, truckage and outfit, we arrive somewhere in the supposed wilderness for a two week's stay—the only two weeks of the year—only to find the fish and game not so much more abundant than in our home neighborhood. Is it not too true?

Why not try the go-light method? Study your own state and its fish and game possibilities. I'll warrant you, within three dollar's carfare from your own home, you will find plenty good enough fishing and shooting to make a week-end camp worth while. In my own state, (New Jersey) there are thousands of such places, all within three dollars return carfare from my home, many of them still nearer. The other

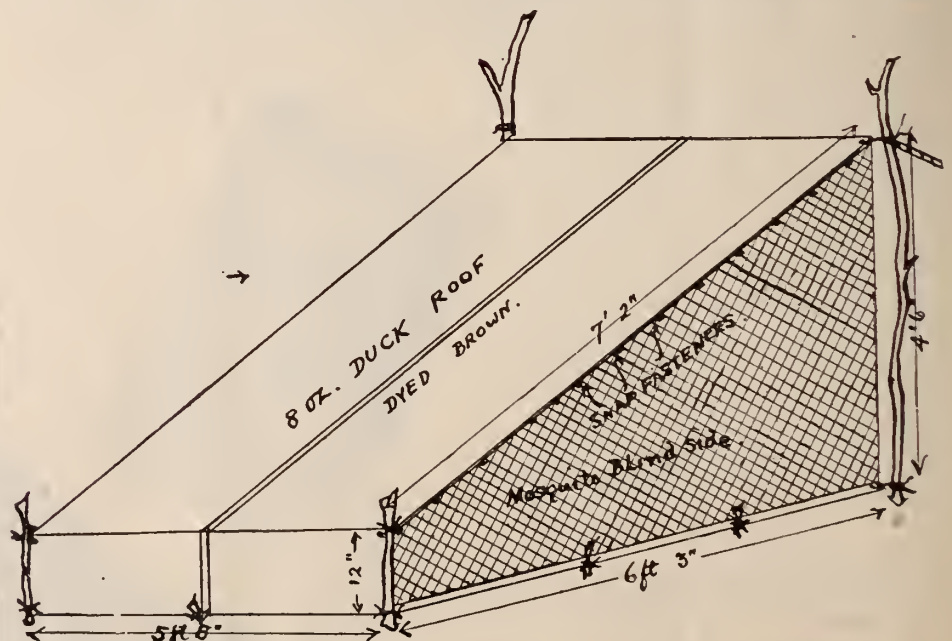


Diagram of a three and a half pound shelter tent for three people

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Columbus Post-Dispatch: If you want "rod and reel" facts, presented with the scent of wild flowers and the sparkle of rippling water, read "Lake and Stream Game Fishing," and you will long for another try at the bass or trout. If you are a veteran, it's a certainty you will eagerly read the book from cover to cover, for it's practical and chockful of information only learned by actual experience. If uninitiated in the charming sport, you will pine for a "hook, pole and worm," just to see if there is as much pleasure in the sport as "Dixie" declares. Then you will be inoculated for all time, and the call of the lake and stream will ring in your ears until the last summons.

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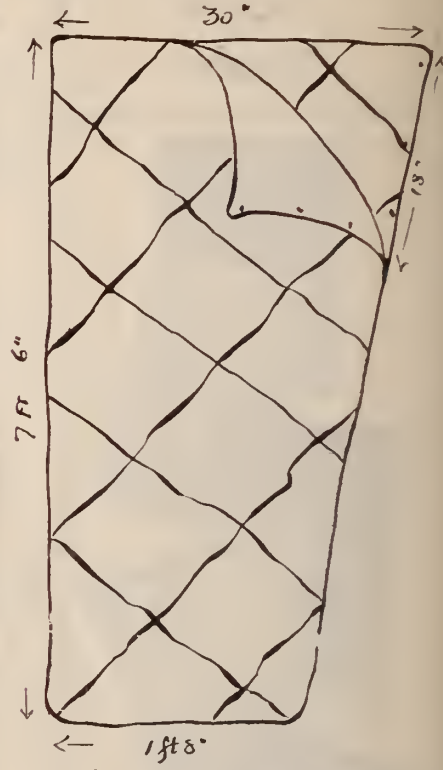
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American Marksmen Series
Painted for Remington UMC
by F. X. Leyendecker

states likewise. Its a case of knowing your state, and particularly the game regions of your state. The rest is a camping system, a la Nessmuk, and grabbing a weeks-end when the season



Sateen quilt sleeping bag

is ripe. My own additions to the original foundation of go-lightism, laid down by the old woodsman, are here sketched in for your courteous consideration.

SALESMAN AND CAMPING

(CONTINUED FROM PAGE 296)

out game as naturally as a chestnut bursts its pod. You have been waiting to be told of it for years.

Man, like everything else which lives, changes with the air that sustains him. Before that salesman has gotten to the odds and ends of your equipment, the axe, the canvas bucket and the candle lantern, you are breathing a new ozone.

There are fish to be caught in both the stream and in the lake and there are real adventures to be found and a lot of nature to be studied in the woods and about the fields, right at your door.

The salesman will sell you a good axe. Health and strength will come back to you in the collection of fire wood for the camp. You can find real enjoyment in clearing up the grove of birches and in selecting the wood that makes for you the most heat and light.

Knapsack, hatchet, knives, tinware, rods, fishing tackle, ditty bag, lantern food bags, the salesman will select, showing you why one style is better than another. He will help you in your food supply, but remember, you are not going beyond the range of a pumpkin pie or a dish of cream, for your wilderness holds a red barn farm and a farmer's wife.

So you see that camping out is the
(CONTINUED ON PAGE 307)

IN the onward rush of world reconstruction, with its constantly increasing demands for speed and efficiency, the American whose recreation is pistol shooting can be depended on to keep in front.

The same dominating, well-coordinated manhood which enables him to do so is latent in most Americans. Target shooting with the pistol will bring it out—and better all-round Americanism.

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The Baits that Made the Pork Rind Famous

Have used your baits for the past two years. They are marvelous and make a poor angler a good one.

RICHARD KREIS, CARDINGTON, OHIO.

I have used your wigglers and find they can't be beat.

Dave Har, Nat hitches, La.

There is nothing that can beat your Little Egypt and Pork Rinds.

Charles L. Klein, Trenton, N. J.

They are a fine bait and the only one in which I can get anything.

C. F. Beck, Weirsdale, Fla.

The Little Egypt Wiggler is one of the best lures I have ever used.

H. L. Higgins, Montgomery, Ala.

Some bait! Next year we hope to handle more.

Kingsboro & Baxter, Little Current, Ont.

Your bait is all you claim for it!

George W. Wright, Brockville, Canada.

Send me two Little Egypts at once. Cannot be without them.

E. C. Vaughn, Oden, Mich.

Your devices are the best lures on the market.

David Elder, Duluth, Minn.

Your Oriental Wiggler is the best bass lure ever produced.

Dwight Eckler, Montpelier, Ohio.

Little Egypt getting the fish.

R. H. Sampe, Osceola, Wis.

Am now using the Little Egypt Wiggler exclusively.

John Brand, West Point, Miss.

It is the only bait I have used since I first tried it.

George A. Keach, Helena, Ark.

Have taken as high as thirty bass in a day with your Pork Rind Minnows.

E. C. Means, Ashland, Ky.

Your Little Egypt Wiggler is the fisherman's only sure success.

Charles L. Klein, Trenton, N. J.

I consider your bait the best I have ever used.

H. E. Berg, Woodward, Okla.

Your baits are surely fine.

Walter Denzel, Cairo, Ill.

I had very good success with your Skidder—caught fish when all others failed.

George C. Delzer, Dodge Center, Minn.

Just got to have Foss baits or no fish. Am Hoov-erizing to beat high cost of pork.

John F. Logan, Plummer, Idaho.

I caught several land-locked salmon on the Wiggler when they would take nothing else.

George F. Dunn, Houlton, Maine.

If they won't hit the Little Egypt Wiggler, there is not much use trying any other.

H. J. Borchers, Baraboo, Wis.

I consider your Pork Rind Minnows the best artificial lures I have ever used.

Charles Barry, Montello, Wis.

The only time I caught the limit (20 pounds in this State) was with the No. 4 Oriental Wiggler.

E. C. Trip, Kennewick, Wash.

Am now using your Pork Rind Minnows and haven't had so much sport since I have been fishing.

Think I will discard my plugs.

Art Warner, Sterling, Ohio.

Am really ashamed to think of the real money I have put into plugs, when I could have waited a little longer and put it into Liberty Bonds and Al Foss Pork Rind Minnows, and been away ahead of the game. Now my wooden baits are put away.

Eck Sheasley, Franklin, Pa.

Until I began fishing with Al Foss lures, I had never been a howling success as a fisherman, but now I can guarantee plenty of fish any day in Florida.

H. E. Galyean, Plant City, Fla.

They All Swear by Al Foss Pork Rind Minnows

I have about a peck of spoons and plugs that I am going to hang on the wall for decorative purposes, as that is about all they are fit for since I got a Little Egypt Wiggler.

Dr. S. J. Hastings, Salisbury, Md.

Your lures have already gained a place at the end of my line during five-sixths of the time I am fishing.

Frank E. Wilder, Madison, W. Va.

Have been using your Pork Rind Minnows the past two seasons, and am convinced that they are the best baits on the market.

T. B. Settle, Fincaastle, Va.

Your Pork Rind Minnows are the best artificial baits made. Am 66 years old and have had the experience.

Wm. M. Hughes, Jamestown, R. I.

The Oriental Wiggler I got last season is the most successful bait I have used and I have tried most of them.

C. B. Parr, Penbrooke, Canada

I've got a barrel of artificial baits, but to be fair to the makers, may be I don't know how to use them—anyway, I'd swap the bin for another Little Egypt.

J. S. Edmond, Tracy, Minn.

Your Little Egypt Wiggler with Pork Rind attached is the best bass lure I have used up to date. It sure does the work.

Wood Richardon, Flemingsburg, Ky.

Have used your Little Egypt Wiggler for two years in casting for bass and pike with wonderful results.

James L. Miller, Spearfish, S. D.

Your Little Egypt is a deadly killer. They are indispensable after once tried.

W. H. Watkins, Chattanooga, Tenn.

I find your Pork Rind Minnows the best lure on the market. They hook them good and they certainly have plenty of fight left in them.

J. L. Moore, Orrville, Ala.

As I look at it we should be sufficiently grateful to the game fish that make our sport possible to make our lures as humane and sportsmanlike as is consistent with efficiency, and when we find that combination in an artificial bait such as yours, to speak out in favor of it at all times. It puts the "man" in fisherman.

Dr. Wm. Rounds, Fort Worth, Texas.

Used your Pork Rind Minnows on a trip with a friend. He used a Pork Chunk and I used the Oriental Wiggler. I caught 14 bass to his one and he is an old timer and I but a greenhorn.

Ira Eisenhower, East Chicago, Ind.

Last year during our outing we took 154 small mouth bass, one caught on live minnow, one on a bucktail, two on a red feather—the balance on the Skidder. In fact, we really discarded all other baits.

George Pratt, Meadville, Pa.

Try these baits—they "Bring Home the Bacon"

Since we discovered the Al Foss baits, the plugs are nix. We usually carry the whole kit of stuff we had before along, but when we get to the water we start with the Foss bait—and never change. There is nothing that we can say in praise of your baits that has not been said before.

R. E. Reed, Kennewick, Wash.

Am arranging for another northern trip this Summer, and you can bet I'll have plenty of Foss bait in my grip. Am 62 years young and play just as hard as I work and want tools that will get the goods.

C. B. Singer, Omaha, Neb.

I find these lures fine on salt water trout and red fish, also Northern Minnesota for muskies, large and small mouth bass. All I carry is a set of your lures.

Walter Weltman, Houston, Tex.

I want to thank you for placing on the market such baits as the Little Egypt and Oriental Wigglers, which make it possible for a man to do a season's fishing with all he requires, except the rod, in his vest pocket.

A. T. Phillips, Ottawa, Canada.

They seem to be more nearly weedless than anything I have seen, and then the one hook appeals to me. A striking fish seldom fails to be hooked, yet mostly in the lips where the small and surplus fish can be easily unhooked and returned unharmed to the water.

J. C. Crawford, Franklin, Pa.



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\$1.00. All Red, All White or Red and White.



LITTLE EGYPT WIGGLER;
weight, 1/2-ounce, 75 cents.



SKIDDER: weight, 1/2 ounce, 75 cents.



35-cents Bass, Musky and Fly Spinner sizes.

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Who will be the 1919 Champions?

WHO in 1919 will prove worthy of the laurels won so sensationally by Fred Plum at Atlantic City, and W. H. Heer at the Grand American Handicap, last year?

Plum, who missed his second bird and then went ahead for 154 straight hits, knew that he was "right"—that his gun was "right"—that his ammunition was "right"! His mark of 197 x 200 and his 154 straight are both records for this event. Of course, he used Peters Shells!



Heer, who tied for first place in the amateur championship at singles at Chicago, went ahead and proved his wonderful ability by winning the shoot-off. His mark of 98 x 100 also showed perfect confidence in himself, his gun and his ammunition. He, too, used Peters Shells!

These champions—winners of spectacular matches—who demonstrated amazing control of nerves—knew they could rely absolutely on Peters Shells.

Accuracy—velocity—and uniform patterns—these are reasons why Peters Shells break the targets so well. Naturally, they are preferred by a majority of the leading trapshooters.

Watch the men using Peters Shells if you want to be able to pick the winners for 1919!

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CHAS. NEWTON RIFLE CORPORATION,
BUFFALO, N. Y.



IN THE REALM OF THE PALM HAMMOCKS

(CONTINUED FROM PAGE 272)

as members of the party. In this case, it was a young pig and a rather husky looking Rhode Island red cockerel. The rooster loudly protested the intrusion, and tugged at the string attached to his leg, which, in turn was hitched to a peg driven in the ground. The porker was occasionally reminded that he was not at liberty, when his own cord strained to its limit and tightened about the plump belly.

CHARLIE TIGERTAIL would converse only with Hendry, of whom he had heard and whose tongue fell easily into the indian's own vernacular. Even Youman, for all his experience in that section, could not prevail upon Charley to "open up." As a matter of fact, Tigertail was a Seminole of distinction—a head-man, of long record and honorable following. His forty years of Glade life, however, had creased his rugged face and seamed his long hands until he resembled a mummy.

"He on way to Chokolakee for a few things and then new camp—Tommy Oqceola cypress," translated Hendry, "he say Glade land now not much good for planting any more. Trees die—he go to Big Cypress hammock. Game much bad. Rain, rain all time. Unhappy in old home."

But Charley did confide the interesting information that the pine island and its surrounding hammocks were alive with wild cats. His ammunition was now so low that he dare not waste any of it on them.

This tip was a good one, as the four had occasion to learn not long afterward. Hendry and Youman, discussing mutual topics had led the way from Tigertail's camp, and Mr. King, with John, followed some two hundred feet in the rear.

As soon as the pine was passed they entered a strata of luxuriant cypress, spliced together by vines, low shrubbery and rich, black sandy loam, with occasional slabs of rock protruding, the surfaces of which reached areas of from one to three square feet and were level with the soil, indicating that this ground was entirely awash in wet weather.

The guides were both out of sight and John was well in advance of his father, when the boy spied a cat at the base of a cypress. In a wink it had raced up the irregular trunk and out upon a low limb. The animal growled, spit and whined, alternately, as he glared down at John, trying to anticipate his next move.

For a moment the lad was too befuddled to act. Recovering, he carefully aimed his rifle and fired.

The cat was a large one, full-furred and snappy. He gave no indication of wanting to either climb higher in the tree or beat a retreat into heavier undergrowth—and John's first aim went wrong, for all his care in marksmanship.

Up went the rifle again and once more a shot echoed through the cypress hammock. Amidst much clawing and spitting, the cat dropped to the ground.

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Yours,
Dixie Carroll



Fifth, when fishing you can navigate shallow streams without roiling up the water.

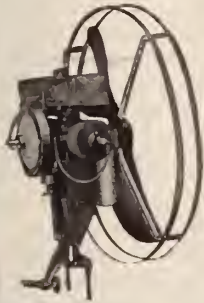
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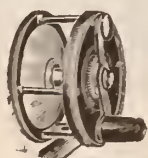
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WORTH TRYING
HENRY T. SCHILLING 1722 HAWKMAN ST. BROOKLYN, N.Y.

And it was here that the boy made his mistake—he assumed that the shot had been a deciding one. Running pell-mell forward, he was upon the beast before he realized that it was a glancing blow on the side of the head. The cat was stunned and frightened only. When Mr. King came crashing through the brush, it was to witness John on the ground and the cat a-top of him, both rolling over and over under the cypress.

The upshot of it was that the cat was killed by a blow from Mr. King's gun, and John Jr. extricated from a rather sorry mess. He had protected his face with his arm, but his clothes were torn and his hands and wrists a bit lacerated. He was still tidying-up when other shots sounded from beyond the cypress where the cabbage palm hammocks began, and when they joined forces with the others, they found that Hendry and Youman had killed three more formidable, yet quite handsome cats to add to the bag.

Several hours were spent in that locality, while Mr. King made his important observations, and the return was suggested, as they wished to make Chokoloskee before dark. Deeply embedded in the muck on the far side of the pine island, the head of the party discovered a stake. It's dim markings, 1615 No. 12,3-P.C., although hieroglyphics to the others, told him that here, in this vast lonely place, was one of the outer ram-parts of the Tamamai Trail.

An incident occurred, while descending the river, that would have later significance. The swifter boat passed two men in a flat-bottomed boat of ancient vintage. They were young, as far as could be ascertained at that distance. One was in the bow, paddling, while the other poled from the stern seat. In dress they were trampish and they looked travel-worn, haggard, hunted. The crude "makings" of a camp were packed in the bateau.

There was no exchange of greetings, and Youman was particularly impressed. Twice that day he had bumped into things that annoyed and puzzled him.

Chokoloskee was reached a half hour before dark and this made it possible for Hendry and John to seek a likely black bass fishing ground. The bay, of course, was in itself fisherman's joy, but there were no less than six tributary streams, shadowed by overhanging trees, that offered great possibilities.

They used a regulation trout rig and, undisturbed by even so much as a passing skiff or power boat, the sport was continued for an hour, the sun descending and finding them still at it. At one place, the surface of a little stream was all but covered by large lily pads, and the mangroves latticed in a triangular pool, at its entrance, which was an ideal home for the bass. They brought seventeen back to the boat and John was supremely happy and satisfied, for a while, at least.

At the dock, they ran into a crowd of loungers who were paying tribute to a recently captured loggerhead turtle of imposing heft and size. Even out from Miami, John had never seen them this size. Two fishermen had captured this prize on the shore of one of the outside keys and had brought him up to Chok-

oloskee for a grand turtle-steak feast that was scheduled for the same night. Sprawled upon the dock, the men were sitting on him and repeating stories of other loggerhead adventures.

The night was an uneventful one, all hands being tired from their expedition up Turner's River, and John Jr., with both wrists wrapped in oiled bandages, carried proof of the strength of cat claws. He had insisted upon bass fishing, wounds or no wounds, but when night came, he was too stiff to take off his own clothes, and Hendry acted as temporary valet.

"We leave in the morning," was Mr. King's last order.

At sun-up, next day, the last supplies were taken aboard the *Mae*, including full drums of gas and extra cans of it for emergency. Youman volunteered assistance in these operations, chattering volubly with Hendry all the while and interrogating him on our next move. The underground wires were getting busy. Perhaps they would know of our coming on *The Chatham* before we ever entered the mouth of the river. Smallwood was always near, looking on abstractedly, although Chokoloskee was crowded with Seminoles. Charlie Tigertail and his family landed, among others and there were several waddling old headmen and women, as withered as the leaves of yesteryear.

"If we cared to run the risk of investigating," observed Mr. King to John, "I fancy we could find a reason for this seasonable gathering. It is egret time and while we have seen no plumes, the coon and otter skins are not many—not enough to cause this unusual commotion."

The *Mae* was being put in order at the large dock, when two men rowed over alongside in a crude, flat-bottomed boat. The moment John spied it he turned to his father rather excitedly.

"We saw them up Turner's River," the boy exclaimed "the same two. Wonder what they want. I saw them at the trading post a half hour ago, buying tobacco, but they spoke to no one and Mr. Smallwood seemed not to know them. The chap with the beard is hailing us."

Two disreputably attired young men stood in the bateau. They were, indeed, the same precious pair that the power boat had passed coming down the river. If anything, they seemed more uncouth than ever in the glare of the morning sun.

"Going to Marco?" the larger man inquired.

"No—down the coast and to Miami," Mr. King answered.

"Any objection to towing us?"

Mr. King hesitated, although he did not wish, at that moment, to appear to do so. The Man with the Beard was quick to perceive this embarrassment.

"Understand," said he, "we'll work our passage. We'll be of real help to you. We can fish, too. My friend here is a sort of Tarpon King—" jerking a soiled thumb over his shoulder at his companion, "but we won't bother you and we can't row all that distance. We want to get away from this God-a-mighty hole. Had a bigger boat and the engine went bad on us. We left it at Marco and came on up here in the little jigger."



Let's Go!

One pull at a flywheel—"P-r-r-r" says your Evinrude—and away you skim, on lake or river, wherever you will—picnicking, hunting, fishing, or just care-free Evinruding.

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makes any boat a power boat; and brings new joys to every outing. Evinruding is just going—no rowing! Nearly 100,000 already sold.

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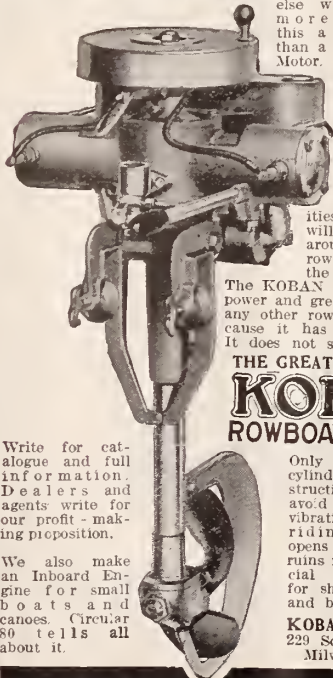
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The strain of war is over, and the boys are home. Lake and river echo once more with happy voices and carefree laughter. It will be an "outdoor" summer. Nothing else will contribute more toward making this a real summer than a Koban Rowboat Motor.



Attached in a few minutes to any rowboat, it gives you a speedy power boat, which will greatly enlarge the radius of your cruising activities, and which will "run circles" around any other rowboat motor on the lake or river. The KOBAN gives you more power and greater speed than any other rowboat motor because it has two cylinders. It does not shake the boat.

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Write for catalogue and full information. Dealers and agents write for our profit-making proposition.

We also make an Inboard Engine for small boats and canoes. Circular 80 tells all about it.

Only by this two-cylinder opposed construction can you avoid the continual vibration that makes riding unpleasant, opens seams and ruins rowboats. Special tilting device for shallow water and beaching.

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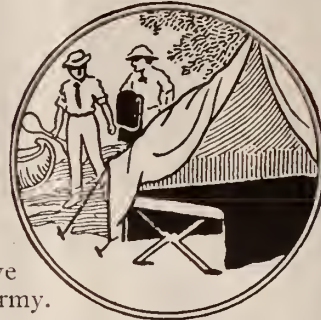


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The same high quality of which we supplied the U. S. Army.

Over 100,000 Without a Single Rejection

GREATEST WARMTH AT LIGHTEST WEIGHT

—a combination impossible before our practical experience in the World War.

Desirable colors, durable binding and lasting quality make these blankets useful for more purposes than any robe you ever saw. Use them not in Winter only; but in Spring, Summer and Fall—

- at the seashore for the beach tent, and the bathing hour.
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- Invaluable for invalids—help well folks keep well.

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THE BEST AUTO BLANKETS			
\$4.00 each	Olive Drab or Oxford Gray, size 42 x 60 inches; weight 1½ to 2 lbs.	Three for	\$11.25
LARGE SIZES FOR GENERAL USE			
\$7.00 each	Olive Drab, size 60 x 84 inches; weight 3 lbs.	Three for	\$19.50
	Same blanket to Boy Scouts, Camp Fire Girls and similar organizations, we make a special price on	Twelve for	\$75.00
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	Dark Navy Blue, size 56x84 inches; weight 2½ to 3 lbs.		

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John was inordinately eager to demand what they were doing up Turner's and why they came to Chokoloskee at all. Their looks were certainly against them. Indeed, he shivered with apprehension when his father nodded assent. They were to have traveling companions now and John was far from favorably impressed. Hendry, rolling the drums of gas into position, stopped long enough to grunt and to stand with a frown on his usually inscrutable, indian-like face.
(TO BE CONTINUED)

JAMES ALEXANDER HENSHALL

(CONTINUED FROM PAGE 277)

It bites freely, but makes little resistance when hooked, reminding one of the cropie of fresh water. It is usually infested with a parasite, an isopod crustacean about the size of a finger nail, and resembles somewhat the terrestrial "sow-bug." This "sea-louse" is found just under the gill-cover of the spot, but it is not at all detrimental to the fish as food. At the time of which I write the spot was very abundant about the old wharves of Baltimore harbor and bait was very handy. For that matter one might fasten his boat to a wharf timber, take a shrimp from one of the piles, place it on his hook and cast it a few feet beyond to open water, when it would at once be taken by a spot which was waiting for just such an opportunity, and so on *ad libitum*. The weedy flats and channels of the estuaries near Baltimore, at that time abounded with the fishes mentioned.

A boy near us, who was also fishing for spots, broke his hook on a submerged timber and was lamenting his loss as he had but the one. I looped on another and smaller one. The hooks we used were "flatted," that is, the end of the shank was flattened and spread, so that a line could be netted on and would be firmly fastened. We did not use snells as these fish saw only the shrimp bait and did not consider the rest of the outfit.

The boy was quite grateful for the fish-hook, and invited us to go with his father, who was a market fisherman, on his trip the next Saturday and see the big seine hauled. Accordingly we left home at daylight on the appointed morning, with luncheon in our basket, and repaired to Bailey's wharf, where we found the fishermen folding the two-hundred yard seine on the stern deck of a large batteau. The boat was propelled by long oars, or sweeps, the men rowing standing with a large live-box in tow. The fishing ground proved to be a smooth, clean shore of the Patapsco river. As the boat was rowed the long seine was paid out in a circle, with the ends near together at the starting point. The work of hauling in the seine was very laborious, and taxed the strength of the men to the utmost. As the spread of the great net constantly diminished we could see a great multitude of fishes leaping in every direction in the effort to escape.

The novel and strange sight was one of much interest to us, and as the bight of the seine grew smaller and smaller it seemed to us as if all the fish in the river had been captured. Then the men

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are moving their plant from Buffalo, to Brooklyn, N. Y., the name will be changed to the Newton Arms Corporation, with general sales office in the Woolworth Building, New York City.

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began to scoop the fish with hand-nets and load them into the live-box, which was soon filled. But the one haul was required to furnish all the fish needed. The lead-line was lifted and the smaller fish allowed to escape—perches, sunfish, catfish, eels and what not. The fish in the boat were large white perch, yellow perch, whiting, tailors (bluefish), rock-fish (striped bass) and other fish with which we were not on familiar terms. The striped bass ran from five to twenty pounds, and the bluefish from three to ten pounds, but I had seen larger ones in the fish market brought from Chesapeake Bay. A few years later, when attending high school, I usually passed through the Lexington fish market admiring the fine display of the finny beauties. One day there happened to be some unusually large striped bass on sale, the largest I had ever seen. One colossal bass was being weighed and I stopped to see the result. The scales were wooden ones some four feet square, hung on chains. On one was the big fish and on the other two fifty-six pound weights. The weights were a little heavier than the bass, and there seemed to be no other weights. One of the men turned to me and asked how much I weighed; I said one hundred and three pounds. He then removed the large weights and placed me on the scale, when it appeared that the fish was slightly in excess of my weight. The man then said that the fish weighed between 103 and 112 pounds, and gave it as his opinion that it weighed about 107 pounds. It is my belief that it was the largest striped bass on record, as I have never seen or heard of one that was any larger.

(TO BE CONTINUED)

SALESMAN AND CAMPING

(CONTINUED FROM PAGE 300)

thing after all. Try it. You will never regret its choice as an outing experience. We might try our lives by a thousand simple tests. A life in a camp, in the silence and the open air will illumine a new world for you.

From the coming of dawn, and its attendant awaking of the bird songs, through the day with its attendant adventures and camp duties, to the hour when the flaring camp fire bids you to its luring reveries, you live again. And then some night a big moon is set high in the heavens, to beam its smile of welcome. A big owl laughs at the world with you, from his perch in the big pine. The far-off cry of a lonely loon breaks upon the still night and, hushed to a low murmur, you catch the sound of the gurgling brook. You nod, and drowse, and crawl away to the blankets to sleep. You have absorbed the irresistible peace of the big outdoors, and so you sleep as you were meant to, a child of nature again.



Heat It With
Theroz

Camping—

YOU expect to "rough it" to some extent, of course. But the cooking end of camp life should be smooth, not rough. Unexpected friends may turn up at any time to take "pot luck". You all will appreciate the solid comfort and ready convenience of

Theroz Blue Flame Stove

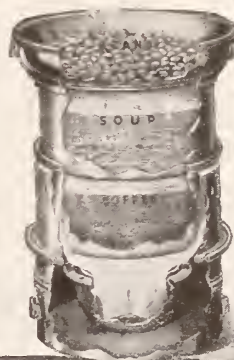
in solving all cooking problems, and to insure plenty of hot water for dish-washing and shaving.

Theroz Fuel is quickest, hottest and safest—its full, intense heat is instantly available at the scratch of a match; it stays solid while burning and therefore cannot spill if upset. Theroz burns without smoke, soot or odor. (These factors inclined Uncle Sam to order more than 11,000,000 cans of Theroz Fuel for the use of the A. E. F.)

Theroz Blue Flame Stove is designed for efficient cooking, outdoors or indoors. Two burners afford a cooking capacity for your entire party, yet it is as readily portable as a small suitcase when not "in action", serving as a carryall for dishes, provisions, etc.

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Theroz Mess Kit



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and manufacturer of artificial eyes for birds, animals and manufacturing purposes a specialty. Send for prices. All kinds of heads and skulls for furriers and taxidermists.

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Please mention "Forest and Stream"

ROBERT H. ROCKWELL



TAXIDERMIST

753 East 32nd St., Brooklyn, N. Y.

PLANT LICE AND SCALE INSECTS

(CONTINUED FROM PAGE 285)

the roots, others on leaves, and a few, such as the grape-louse and woolly apple-louse, on the roots as well as on leaves or bark. Certain kinds have alternate food plants, that is, they migrate from one kind of a plant to an entirely different plant. An example of this is the hop-louse, which spends the summer upon the hop and when the plant dies down, migrates to plum trees. The pea-louse is occasionally seriously injurious to clover, but where peas are available it migrates to them in spring; otherwise it continues to multiply on the clover. A few species are partial to one kind of plant only; others have a considerable range of food plants, including farm products as well as nearly all the common weeds of our fields.

CLOSELY related to plant lice, but in many ways different, are the scale insects, including mealy-bugs and others of which some are the most serious pests of the orchard. Scarcely any kind of fruit, shade, or forest tree is free from their attacks, and as these insects and their eggs are easily transported for long distances on fruit or living plants, a few of them have become world-wide in distribution.

Scale insects feed on the juices of their host. They are sucking insects like the plant-lice, but they do not move freely as they are more or less fixed to a single spot on the plant, where they are often difficult to detect. Certain scale insects are covered by a flattish or convex scale, which is formed of secreted wax and of the cast skin of the body; some have the body wall above much hardened and very convex, so that a strong, rigid projecting shell is formed; others secrete wax, usually in the shape of white cottony masses, with which they cover the body more or less completely, sometimes forming waxen egg-sacs at the posterior end of the body. The most troublesome and destructive of the scale insects is the San José scale, a native of China and Japan and first noticed in California about 1880. Since then it has spread to nearly every state. This insect multiplies so rapidly that within two or three years after the trees become infested they may die. The rapid increase in numbers makes it one of the most destructive insects of the orchard, and no other injurious insect has received such constant attention of entomologists, orchardmen and legislators as this little pest. It attacks branches as well as fruit such as peach, pear, apple, plum and quince.

TRAPSHOOTING REVIEW

THE annual review of the American Trapshooting Association with the averages of the shooters who participated in registered tournaments in 1918, is now ready. Trapshooters and other sportsmen who have not secured a copy of the review can secure same by writing the American Trapshooting Association, 460 Fourth Avenue, New York.



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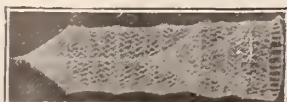
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HEINZ PICKLES—a great relish,

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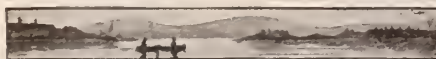
Instructions for Net Making

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weighs THREE ounces goes in VEST pocket.

Pat. in U.S.A. and Canada

A well-made serviceable article for the WISE man. If your dealer does not handle them \$2.25 will bring you one anywhere in the U. S. prepaid. In Canada or foreign countries, \$2.75. Made with or without pipe socket.

THE RHOADES MFG. CO. Sault Ste. Marie Mich.

E. D. STEARNS



HERE died a few weeks ago in the Wyoming Rockies, a man who was in a way as much a martyr to duty as was almost any soldier in the trenches.

Probably most of our readers are aware of the fact that Uncle Sam maintains a small

band of wolf-hunters, under the direction of the Bureau of Biological Survey. The deceased, E. D. Stearns, was one of these. His beat was on the headwaters of the Gros Venere River, a tributary of the Snake, south of and near to Yellowstone Park. It is a picked body of men, and the best of them are on duty the year round. Summer is glorious in that region, but winter is almost arctic in severity. Temperatures drop to a minimum of nearly fifty below, and the snow in the foothills and higher may be anything up to twenty feet deep. It is here that the elk are making their last stand; the wonder is that any still survive the winters, without regard to the wolves and coyotes.

In summer, Stearns did his work chiefly with traps, running a line of them 25 miles long every day on horseback. And, except to go for supplies, or to a distant post office for orders, he never missed a day. But winter is a sterner proposition. Traps are then almost useless, owing to their being so speedily covered with snow. Nothing suffices but to track the wolves on snowshoes. Picking up a fresh trail, Stearns would follow wherever it led, hoping for and often getting a shot, and he was a marksman, indeed. Of necessity, he carried the scantiest of equipment, aside from his rifle, bacon, rice, cornmeal, tea, a few ounces only of each; a tin can or two for utensils and bedding which aggregated in weight exactly nine pounds.

Whenever night overtook him, there he camped, under the first spruce tree that was handy. And he kept this up day after day, visiting some one of his string of remote log huts, only to replenish food or cartridges. It is strenuous work indeed and it tells on all who follow it. When illness (influenza) came it found an easy victim. He died in the performance of his duty.

The work will go on as before, of course. What man has done, man will do again. But the service has no more faithful, modest servant than the man whose little story is here recorded.

Upon this peg, it will do no harm, perhaps to hang a plea for the Bureau of Biological Survey itself. That part of its annual appropriation which it can devote to game refugees is only \$30,000, a beggarly pittance, considering the field it is expected to cover. Half that, or near it, ought to go to the feeding of the elk alone south of Yellowstone Park. And there are many bird refugees and game sanctuaries, some of which have had to be left practically or wholly without attention. The prayer of the righteous availeth much, but a letter from every subscriber would be more to the point.

Always carry a DAYLO for hunting and trapping



Inspecting Traps, Dead Falls and Snares with a Daylo

WITH a Daylo to help, you can pick out tracks and signs that an Indian would miss—

- Inside of hollow logs and trees.
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- Under banks covered with overhanging grass and brush.
- And even down in the home holes and dens of the fur bearers themselves.

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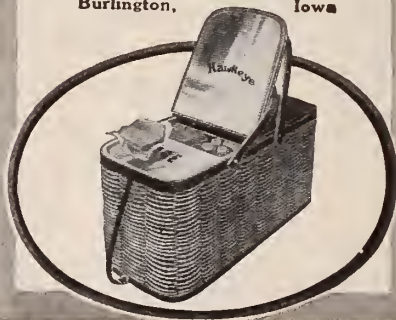
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He will send you one if you ask him.

BOB SMITH SPORTING GOODS
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THE COST OF FISHING

(CONTINUED FROM PAGE 294)

into some of the rapids of the Nipigon would end your fishing trips for all time.

SUPPOSE we describe a trip on the French River from Pickerel Landing up to Lake Nipissing.

This is a trip embracing several levels of quiet, rock bordered, pine fringed river, hitched together by links of foaming rapids.

It should be made by two people in a canoe. Leaving Pickerel Landing you start up river. Going by map and compass you will meet enough people to direct you over the few portages around the rapids you will find. Each time you start up river from rapids, mark the place carefully for the next half mile by landmarks that you can remember coming down on your return, so you will not miss the portage.

This trip will put you over fishing water that will yield you small mouth bass, wall-eyed pike, northern pike, all of nice size, and perhaps, if you are very clever, a good muskellunge or two.

This trip on the French River is for competent canoe men.

If you want to fish Lake Nipissing, just go to Sturgeon Falls; rent a row-boat and have the steamer tow you down towards the French River and tell the captain to direct you to the West Arm.

You can't get lost here, as there are lots of people on the waters and the steamer will tow you back to Sturgeon Falls when your trip is over.

It can be said for the West Arm of Lake Nipissing that there are some very large muskellunge caught there and you can catch all the bass and pike you will be able to carry.

The West Arm is a great, island studded lake all on one level and devoid therefore of danger spots, and Sturgeon Falls is reached by the Canadian Pacific Railroad.

There is every reason to believe a fine trip can be made there for \$60 per person, including all expenses.

Suppose we now turn our attention to the peerless Nipigon, that whirl of white water, where the great big trout live.

A ten-day trip on the Nipigon for two people including the license costs \$150 each. Add to this the cost of your railroad fare to Nipigon City and you have the total amount necessary.

This will take you over this great trout river in fine style, fully equipped in two big strong canoes manned by two Indians each.

Take a look at some of this Nipigon white water and you will not wonder why two guides are necessary to bring you alive through the rapids.

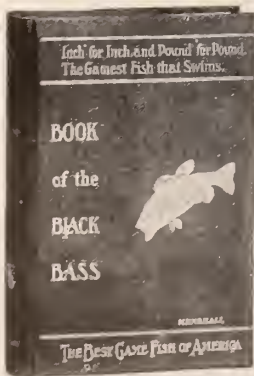
Yet there remains the chance to see this river, to prowl along shore and to catch your fill of the great trout from the bank, if you care to.

Even when you go there with guides you catch many fish from the shore, so take your pup tent, go to the Nipigon, get to the head of the river at the Virgin Falls and fish the upper ten miles on foot, then dream about it the rest of your life. It should cost about forty

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By JAMES A. HENSHALL, M. D.

410 Illustrations. Net \$2.00



This new edition is revised to date and largely re-written. Contains "Book of the Black Bass" and "More About the Black Bass." Comprising its complete scientific and life history, together with a practical treatise on Angling and Fly-Fishing, with a full account of tools, implements, and tackle.

"The angling portion of the book is, without doubt, the best thing ever written upon these fishes. It is clear, and covers the whole ground of the different modes of fishing, and is accompanied by cuts of the manner of holding the rod, castings, and diagrams of the mode of throwing the fly so that it seems to us as if the merest tyro could soon become an expert by carefully reading this book and following its instructions. Not only is it a book for the beginner, but it is one that no angler can afford to do without.—*Forest and Stream.*"

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dollars in addition to your fare, if you are competent and hard to rob.

TURNING now to the Yellowstone, we have a beautiful example of how the ignorance of the tourist, who hungers for a little trout fishing, is turned into dollars by the people in charge of the resorts in this great National Park owned by the people but exploited for private profit.

That justice may some time be done, I will relate my experience exactly as it occurred:

In the summer of 1917 I came from Old Faithful Inn to the Lake Hotel, situated on the shore of Yellowstone Lake.

On the same automobile was a Mr. Harned, also a tourist with a hunch for a few hours trout fishing.

We went to the boat livery at the hotel dock to arrange for a fishing trip, where we were informed that it would cost us \$3.50 an hour for a launch and tackle.

"That's a high price you want," I protested. "How much do you charge for a row boat?"

"Two dollars a day," was the response. Whereat I said: "Fair enough I happen to know it is only 1 1/4 miles down this left hand bank to the outlet where the trout fishing is, so if you will rent my friend here a rod and outfit we will take a row boat."

"We won't rent you a fishing outfit unless you rent a launch," calmly responded the boatman.

Refusing to be held up in our own National Park, we went over to the Wiley Camp where Mr. Harned rented an outfit at a fair price. I had my own outfit and in a half hour we rowed down to the outlet, anchored and, using Jungle Cock flies, caught a nice string of cut-throat trout.

Next day I rented the boat again and caught all the trout the law would permit me to bring back to the hotel.

Anchored near us was one of the launches aforesaid, and the gentleman who rented it paid about \$25 for his

(CONTINUED ON PAGE 316)



A boatload caught with the fly



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SAVAGE

Automatic Pistol

THE war has taught us a lesson—as a nation. But—have you applied it to yourself?

Or, having escaped nationally from the menace that threatened to overwhelm us, are you, personally, individually, going to shut your eyes to the possibility of danger?

In the moment of peril, what will protect you—your wife—your daughter?

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"Never-Leak"

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"Finest thing ever for rough, outdoor wear," says an Oregon sportsman—and you'll echo his sentiments when you've worn a pair of "Never Leaks." Nothing like them for wet ground or dry—hunting, fishing, trapping or hiking. Easy on the feet, but outwear harder, stiffer boots. AS NEAR WATERPROOF AS LEATHER BOOTS CAN BE MADE.

Built the Russell Way
Quality Always

Expert bootmakers make "Never Leak" boots by hand from black chrome cowhide, a wonderfully flexible leather, waterproofed in the tanning. Patented Never Rip Seams shed the water—there are no "open" stitches.

Made to your measure in any height. Soles hobnailed or smooth. Ask your dealer to show you this ideal outdoor boot—if he can't, write for Catalog M.

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Note: When ordering sights direct from us, always mention make, model and caliber of rifle they are intended to fit.

No. 2. Marble's Improved Front Sight.—Ivory or gold bead—1/16, 3/32 or 1/8-inch. Fine for running or snap shots. Used by many professionals who do fancy shooting. Price.....\$1.10

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No. 4. Sheard Front Sight.—Gold bead. Shows up well in dark timber—will not blur. Shows same color on all objects. Type shown is for rifle. Also made for many revolvers. Price.....\$1.65



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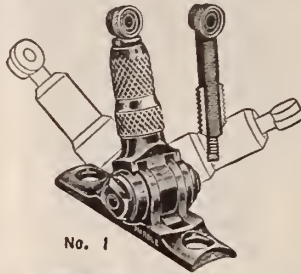
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No. 6A. Marble's Duplex Sight.—Showing enameled bead in use.

No. 7. Marble's Standard Front Sight with 1/8-inch ivory or gold bead. Can also be furnished with 1/16 or 3/32-inch bead. Price.....\$1.10

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Naturally conform to the motion of the leg.

Perspiration proof. Keep pebbles and dirt out of the shoe.

Recognized as the PERFECT LEGGING by every man in the service—and just as applicable to every form of sport, as to army needs.

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Compiled by WILLIAM PHILLIPS COMSTOCK With an article by C. E. SCHERMERHORN, A.A.I.A., Architect Price, \$2.00.

FOREST & STREAM (BOOK DEP'T) 9 East 40th Street New York City

THE GREAT STORM AT ORTLEYS

(CONTINUED FROM PAGE 269)

They were nearly all dippers with a few sheldrakes. They would come up the broad thoroughfare and cross our point directly in the wind, heading for the Crab Pond. The water was knee deep on the point, and the breaking waves kept the boats constantly moving. This made difficult shooting. The beautiful little ducks came in a steady flight, hundreds, yes, thousands of them; we saw more dippers that morning, than in all my other years shooting on the beautiful Barnegat, put together.

In spite of our great handicaps, we gathered some in from time to time, and the Squire being to windward, the booming of his ten bore told us, he too was getting some shooting. At noon, the wind having fallen a little, I started for the house for dinner, after which I was to bring a snack out for Andy. When I reached the landing I found the tide so high, that I shoved the boat up the path, and stepped out on the porch landing. Something I have never done before nor since.

After dinner as I shoved my boat back down the pathway, a little flock of dippers came circling in from the landing, and crossing in front of me, I killed a right and left, and they dropped in what had been Peter's garden, within one hundred yards of the house.

WHILE Andy was enjoying his lunch, a flock of dippers passed over us down wind, a difficult overhead shot, as they were flying very swiftly. One bird fell dead on the meadow behind us, and I pushed out with the "sneak" to gather it, the tide was at least two and one-half feet deep, all over the meadows, and you could shove your boat anywhere. As I neared the dead bird, I saw a drifting plank some distance beyond, that had a peculiar looking bunch on it. As I drew nearer, the bunch slid into the water and disappeared from sight.

Picking up the dead duck, I worked my way back to windward, and holding the boat there, waited. Pretty soon the bunch was back on the plank again, so I let the boat drift before the wind, and held my gun ready. When within range, I fired at the bunch and instantly there was a great splashing around that plank, and I picked up five fine muskrats, one of them jet black. I had found a new sport, and showed my sneak box over the submerged meadow, following the shores of Muskrat Creek. In a short time I had killed twenty-five of them, which I gave to Peter for their pelts. They were drowned out of their houses, and were on almost every piece of drift wood.

It was evident that the great tide had brought misery and disaster to all the "little people" of the salt meadows. Besides the muskrats, there were great numbers of the short tailed meadow mice, these little creatures were drifting on every floating chip and board. They overran our boats, and were a great nuisance and annoyance to us.

Usually a storm tide lasts but a few hours, but this tide stayed for days, and perhaps on the theory that misery loves company, the little things would get together in the crotches of the marsh elders, in bunches as large as an old fashioned lady's muff, perhaps fifty or more in a bunch, and the great majority of them perished from hunger and exposure or from drowning.

As the day wore on the wind continued to fall, and the shooting got poorer, but when we reached the landing at evening, Andy and I had thirty-eight dippers and one sheldrake, while the Squire was the proud possessor of ten dippers and one black duck. As we neared the house, stentorian voices broke forth in song, to the tune of a popular chanty.

"We started from Hazlet some forty miles away, We've travelled and travelled, the whole of the day. By railroad and sail boat we've made our way here, To the home of the Johnsons, that house of good cheer.

The Squire and Cornelly, they would not wait o'er, Taking Andy with them they made for the shore. But David and Jakey are now in the plan, And will stay to the end, with the rest of the Clan."

It was Jake and Dave our missing friends. Loud was the rejoicing, and vigorous the hand shaking for now all was well. Sound the loud "Timbrel," and make the "welkin" ring, for the Clan was once more united. Soon we were gathered around the supper table, where the merry quip and jest passed round the happy board. Loud were the praises of Mrs. Johnson's cooking, and great was the havoc we wrought upon the steaming victuals.

After supper we repaired to the sitting room, where Peter had a great treat prepared for us, a great fire of Bayberry wood. As the great roaring masses of flame went flying up the yawning chimney they made the room as light as day. The chairs were placed in the usual half circle before the fireplace, then Jake brought forth the old grid-iron, and placed it in the fire. When it was red hot, the Squire with all the ancient rights, and due ceremony, was branded and initiated in all the mysteries of the Ortley Clan of duck shooters, of which historic body, he remained an honored member until his tragic death many years later.

What happy, happy hours we spent before that cheerful fire and many the merry prank and joke was played on the different members of our party, all to be taken in good part, and to be returned with interest, when the chance arrived. Dear departed companions of my early years, I bow my old grey head in reverence to your memory.

Jake and Dave reported a strenuous day in reaching Ortley's. They reached Point Pleasant all right, and there found the trains down the beach discontinued, there being twenty-eight washouts from

Abbey & Imbrie



A Small Saving With a Big Risk

At most you save only a few dollars by accepting inferior tackle, and for this trifling sum you sacrifice the quality upon which your angling success absolutely depends. You become painfully aware that the so-called saving was **not an economy** the first time you use such equipment.

Since the difference in price is so small, and the difference in satisfaction so great, you owe it to yourself to demand the best tackle always. You will recognize the best by the Abbey & Imbrie trademark, which has been the symbol of highest tackle merit for 99 years.

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Constant reports from the best fishing streams and lakes — and the most complete fishing tackle department in America.

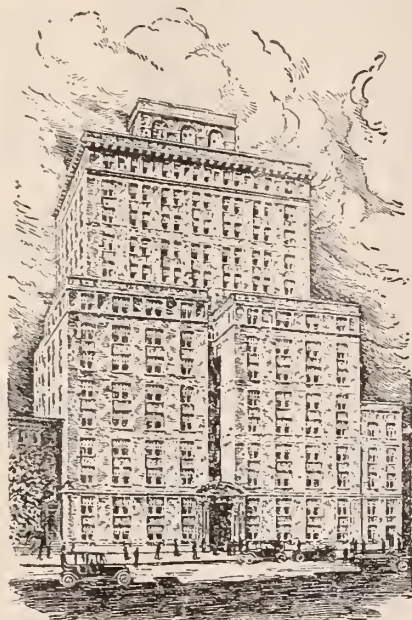
Camp clothes, footwear, guns, revolvers, ammunition — complete outfits for every part of the country, and necessary particulars concerning guides for parties going into the big woods.

Write us for full information regarding your proposed trip.

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The latest addition to New York's ultra smart hotels (Opened in December) — Situated in the midtown motor crossways observing Riverside Drive and Central Park

Illustrated brochure with room tariffs.
Parents with children welcomed.
Special menu and attention.

Bay Head to Seaside Park. Here they fell in with a party "en route" for Chadwicks, so combining together, they hired a yacht and thus reached their destination. (There were no passenger trains over this portion of the road, until the following spring).

The next morning the wind was still northeast, and the tide still over the meadows. Jake and Dave went to the Crab Pond, while Andy, the Squire and I returned to Gabes Point. Here we had fair shooting during the day, mostly at dippers, but with one lucky shot at black ducks. Nine of them came to us and, decoying well, we waited until they were just right, and killed five which greatly pleased the Squire.

Dave and Jake had quite good shooting at dippers and sheldrakes, but were much annoyed by the homeless meadow mice. As Dave lay back in his sneak box, one of the mice ran across his face, and as he struck at it, Jake said, "What's the matter?" "Why," said Dave "one of those confounded mice ran right across my mouth." "He did?" said Jake, "All the way across and didn't fall in?" Picking up an old scythe blade, that he kept in his boat to cut reeds with, Jake held it over Dave's face, and said, "Davey, if he runs back again, I'll kill him for you."

Just at evening, as these worthies were about to quit shooting, a pair of sheldrakes came to them, and they killed both, but one fell back on the over-flowed meadow. Dave went after it, and with his usual luck, stepped into a muskrat hole, up to his arm pits in the icy water. As he floundered out, he called, "Jakey bring my boat." "Not on your life," said Jake, "you can't get any wetter, and Jakey is nice and dry right where he is."

They hurriedly took up their decoys, and with chattering teeth, Dave said, "Jakey row me in, won't you?" "Not much," said Jake, "you take hold of them oars and pull like thunder for the house," and Dave obeyed, and when we came in he was in front of the blazing fire, peeling off his wet clothes. The Squire then compounded for him a "noggin" of something hot, that stopped his chattering teeth, and no doubt, headed off a case of pneumonia.

IT was now Thanksgiving Eve, and Andy and the Squire must leave us at daybreak next morning, for the long twelve mile walk up the beach, to Bay Head, there to take train for home, to attend a grand society wedding in our town that evening. The Squire wore his hip boots and when they came to the cuts or draws, where the sea waters were still running over into the bay, he would take Andy on his back, and wade across, and so over great obstacles they reached Bay Head in time for their train, and attended the wedding. And of the three sons born of that wedding, two are today bearing commissions in the United States Army.

The wind had now turned west, and Dave and I departed soon after midnight, to hold a point for Thanksgiving Day shooting, when we had a shot at geese, but that's another story. The great tide still stayed on the meadows,

Hunting and Fishing Preserve

5,000 acres of finest game and fishing country, within 100 miles of Toronto. Well wooded with Beach, Maple, Oak, Ash, Pine and Spruce. Has one lake mile long by half mile wide alive with Bass. Four smaller lakes with Brook Trout. Brook Trout stream runs for four miles through property. Excellent fishing. Game, Rabbits, Partridge, Musk-rats, Mink, Otter, Beaver and plenty of Deer. Ideal camp site on smaller lake. Taxes merely nominal. One of the most ideal fishing and game properties in Ontario. Now offered at \$6.00 an acre en bloc.

N. H. WILSON 69 Bay St., Toronto

FISHERMAN'S PARADISE

Located on chain of six Lakes. Best Black Bass, Pickerel, Mackinaw Trout, Musky fishing in Mich. In a network of Trout Streams (all varieties). Finest Bathing Beach. Perfect Sanitary conditions. Stone and Long Bungalow Dining room. Write for booklet. H. D. SMITH, Bellaire, Mich.

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SALMON BASS OR TROUT FISHING

GOOD TABLE — GOOD SPORT

IDEAL FOR REST OR PLAY

Terms Moderate

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Hudson River by Daylight

To watch the great green hills glide by as you enjoy the luxury of a big, comfortable steamer—that's the pleasure of a trip on the Day Line between New York and Albany.

Attractive One Day Outings to Poughkeepsie, Newburgh, West Point and Bear Mountain.

All through rail tickets between New York and Albany accepted. Season opens May 24th. Daily including Sunday.

Hudson River Day Line
Desbrosses St. Pier New York





Uncle Cecil in his oversea's uniform

and we had some shooting from day to day. Then Sunday came, and the problem was: how could we leave the beach, with the railroad washed away.

The solution came from Peter. "Boys," he said, "the section gang will be running gravel trains by here tomorrow, maybe they'll take ye."

So Monday morning when the gravel train arrived, and stopped for work on a big washout near the house, Jake sidled up to the big red-headed section boss, and made his appeal. "Nope," he said. "Can't take passengers." Then Jake figuratively got down on all fours, and begged like a cripple, said he had a wife and six small children home (which was true) with no bread, and nothing but cake to eat, and would he be so hard hearted, as to keep him separated from his long suffering family. "Say feller," said the red-headed boss, "you win." Me an' the gang ain't got very good eye sight, and if you make yourselves small, I don't think we'll see you." "Say boss," said Jake, "do you think your eyesight will be good enough to see a box of cigars, and a 'pocket pistol'?" "You try us," said the boss.

So we loaded our "duffle" in the caboose, along with our bag of game, one hundred and thirty-one ducks, (seventy-six of which were dippers) and five geese. Then making an altar of one of the caboose seats, we placed our sacrificial offering thereon, and patiently waited for the train to move. Presently the boss came in, and taking no more notice of us than if we were invisible, he sampled the "pistol," took some cigars and passed out; one by one the gang came through, none of them noticed us, but each took toll from our sacrifice.

THE little fellow in my lap had been sitting as quiet as a mouse, with wide eyes, drinking in every word of the story. As I stopped he looked up at me and said, "Granddaddy, and then what?" "Why that, Cornelius, will be continued in our next," I replied.

THE SPORTSMAN TOURIST

NEWFOUNDLAND

A Country of Fish and Game
A Paradise for the Camper and Angler
Ideal Canoe Trips

The country traversed by the Reid Newfoundland Company's system is exceedingly rich in all kinds of Fish and Game. All along the route of the Railway are streams famous for their Salmon and Trout fishing, also Caribou barrens. Americans who have been fishing and hunting in Newfoundland say there is no other country in the world in which so good fishing and hunting can be secured and with such ease as in Newfoundland. Information, together with illustrated Booklet and Folder, cheerfully forwarded upon application to

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Forests, Lakes and Streams afford some of the best hunting and fishing to be had in North America. The moose hunting is hardly excelled anywhere. Send address to the Chief Game Commissioner, Halifax, N. S., for a copy of Hunting and Fishing in Nova Scotia.

WESTWARD, HO!

If you want the best trout fishing in the Rockies, the finest mountain scenery, big game hunting—elk, deer, mountain sheep or bear, initiation into ranch life, sightseeing, trekking with pack or wagon outfit in Montana, Wyoming or Idaho, horseback journeys, short camping trips, or complete rest in the famous Jackson Hole Country, or Yellowstone National Park, write to
JOE A. JONES, Major Ranch Valley, Wyoming.

DORSET INN — 1796

So reads the signboard on the old inn in the quaint and charming village of Dorset that nestles in the narrow valley of the Faconic mountains. The entire atmosphere of Dorset is soothing, with its enticing walks amid the Green Mountain scenery, the bracing air, and mountain spring water. The Dorset Field Club has a perfect golf course and tennis court nearby. Dorset is the summer home of many business and professional people who want either a few days of perfect rest or ideal country life. For rates write to the
Dorset Inn, Dorset, Vt.

Notice to Fishermen
Point Kill-Kare Resort

in the wilds of Northern Wisconsin. Excellent Fishing of all kinds. Cottages and lodge located on points and island. 300 lakes in the country.

Write for booklet. C. E. Hatcher, Birch Island. P. O., Burnett County, Wisconsin

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In the Adirondaeks, on Cranberry Lake, magnificent scenery, boating, bathing, fishing, mountain climbing. Large, airy rooms with comfortable beds; pleasant sitting rooms; large, open fireplaces; pure water; excellent table. Daily mail. Steamboat meets all trains. Terms, reasonable.

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CRANBERRY LAKE, N. Y.

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Fourteen log cabins, with general dining-room, on shore of a beautiful lake in a mountainous country in the Maine Woods. Excellent food, comfortable beds, pure spring water, good hunting and fishing make this an ideal place to spend a vacation for both gentlemen and ladies. Side trips to Spencer Stream and Dead River. Only 2½ miles of backboard road. Hay fever unknown. Booklet and references on application.

JOHN B. CARVELLE
Spring Lake, Somerset Co., Maine

For Hunting, Fishing and
Outdoor Sports in the
ADIRONDACK MTS.

One of the finest Trout fishing grounds in the country. Boats and guides for the asking; excellent board; rates \$14.00 and up per week.

BEEBE AND ASHTON CRANBERRY LAKE, N. Y.

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An Excellent Health Resort. Open All Year. Hunting and Fishing.

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Cottages and Camps

At the head of Cranberry Lake, N. Y. Most modern and best equipped hotel on lake. Gently sloping sand bathing beach. Pleasant trails. Canoeing, boating and dancing. Best of fishing and hunting. Excellent cuisine. Reasonable rates. For circular, address

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JIM POND CAMP
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Just the place for you and your family to spend a real vacation. Big Jim Lake where the camp is situated, is noted for togue, gamy trout, and salmon. A variety of game and birds offer good hunting in season. The family will enjoy the canoeing, bathing, tramping, and cooking. Ask Green Bros. for further particulars about their camp.

"Come to the lovely Valley
of the Beaverkill"

Famous for scenery, clear air, fishing and other vacationist diversions. One of the best resorts has enjoyed the same patronage for twenty seasons. Rates are reasonable and accommodations limited. Write for further information to

L. I. PERCIVAL,
The Well-known Clear Lake Cottages,
Tobey Estate, Beaverkill, N. Y.

MOUNTAIN VIEW HOUSE

Situated at the lower end of Rangeley Lake, famous for big trout and salmon. Surrounding lakes and ponds afford bait and fly fishing; season opens when the ice leaves the lakes and closes October first. Bird shooting season opens October first.

Spend your vacation on the most beautiful of Maine's lakes. Booklet on request.
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A camp for the whole family, with recreation or study instead of idleness, at beautiful Boothbay Harbor on the Coast of Maine. Deep sea fishing, bathing, sailing, forest trails, camp-fires, tennis, art, music and French classes if desired. Cottages to let. Bring camera and oldest clothing. Catalog and views, 15th year. A. G. RANDALL, Mt. Pisgah, Boothbay Harbor, Me.

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HAYWARD, WISCONSIN

Express records show that more muskallunge and bass were caught during the season of 1918 at our Resort than any other in Wisconsin. Better be safe than sorry.



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COE'S MOUNTAIN HOUSE

Fifty sleeping rooms. Electric lights and modern improvements. Rates, \$2.50 and up per day; \$12.00 and up per week. Brook Trout Fishing, Bird and Rabbit Hunting: Auto Livery.

Address for particulars *O. R. Coe in Catskill Mountains, Windham, N. Y.*

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Accommodate One To Eight Guests

In the Heart of Maine's most beautiful Lake and Forest Region
FISHING - CANOEING - BATHING
The Real Place For Rest, Sport or RECREATIVE LIFE

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Fishing, May 1 to Sept. 1. Hunting, Oct. 1 to Dec. 15. Lake trout, salmon, square tail, deer, bear and birds. Parties placed in lodges, log cabins, camps and tents. Arrangements made for hunting, fishing, camping, cruising or any outdoor wilderness sport in season.

Write for information, rates etc.

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John Connell Sportsman's Guide

I have the best big game hunting for Moose, Caribou, Deer, and Bear there is in New Brunswick; also some fine sea trout fishing. My district is on Tahouback and Bartibogue Rivers. I have good cabins for ladies and gentlemen; it is twenty-five miles from Chatlin to my cabins; you can go by auto or team; parties wanting this sport had better write me and I will furnish them all information required. John Connell, Chatlin, N. B.

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Fishing just now for the fisherman, and hunting later on for the hunter. Good eats for every one and all sorts of outdoor recreation for young and old, as the cabins face cool Davis Pond, and have the famed Maine woods for a background.

Write for booklet and make reservations early.

CAMP WAPITI ASSN., PATTEN, MAINE.

MAINE!

The state for every one who wants to live outdoors.

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Henry P. McKenney, prop.,
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offer every form of outdoor recreation for young and old. The fisherman, hunter, autoist, toddler and member of the "rocking-chair fleet" will enjoy every minute. Send for descriptive booklet.

IF GOOD FISHING, GOOD HUNTING, BEAUTIFUL SCENERY, PURE AND Health-giving Air with good accommodations at reasonable prices are the attractions that call the sportsman and his family away from their daily cares, then the merits of CLEARWATER CAMPS should be investigated.

CLEARWATER CAMPS

Are situated on the western shore of Clearwater Lake, near the little village of Allen's Mills, five miles from Farmington, the terminus of the Maine Central Railroad, and the shore town of Franklin County, Maine.
E. G. GAY, Farmington, Maine.

Ranch—Yellowstone—Big Game

TRIANGLE BAR RANCH ACCOMMODATIONS. Good saddle horses, excellent trout fishing. "Wild West Shows" every two weeks. PACK HORSE TRIPS to Yellowstone and Jackson Hole and into "out of the way" places in the Rockies. No better trout fishing in the U. S. Beautiful mountain peaks as high as 1400 feet. Moose and bands of 100 elk are seen on area closed to hunting. HUNTING PARTIES GUIDED. Elk mountain sheep and bear. References furnished from last season's parties. Simon Snyder, Valley, Wyoming Telegraph Address Cody, Wyo.

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In Maine's Ideal Spot for Camping, Boating, Fishing, Hunting.

The place for you, Mr. Sportsman, and the entire family. This region is famous for Trout and Landlocked Salmon fishing during the spring and summer and Partridge and Deer Hunting in the Fall. Each camp has open fireplace, nearly all have baths—fitted in a way that spells comfort. Excellent cuisine. Fresh vegetables, milk, cream and poultry. Write for booklet.

WESTON U. TOOTHAKER
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Finest Trout Fishing in Maine

Partridges—Ducks—Woodcock—
Moose—Deer—Bear

Request booklet and decide to try best game section in Maine
Telephone

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Six miles from village of Catskill; sanitary improvements and modernly furnished; select patronage; wonderful brook trout fishing in the mountain streams and German Brown, Rainbow Trout, and Pickerel weighing up to 3½ pounds can be caught in stream running through property, within 500 feet of house; bird and rabbit shooting in fall; auto service from depot to house.

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120 Acres of Lake, Brook, Mountains and Woods
Large and Small Mouth Bass up to 6 lbs. in Lake

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In the protected waters of Soo River and Georgian Bay, Lake Huron; all the comforts of home with famous fishing, exploring and beautiful scenery

ON CRUISER WHYNOT

For terms and particulars address W. C. Kepler, owner and master, Marquette, Mich.

BY EXCLUSIVE PARTY OF 2 TO 4

Long Lake, N. Y., Adirondacks

Why go to Maine or Canada when I can give you good hunting and fishing 300 miles from N. Y. City? Lake, Rainbow and Brook Trout, Bass, Pickerel and Muskalonge, May 1st to Aug. 31st. Deer, Oct. 1st to Nov. 15th. Guides on application. \$21.00 per week and up. All inquiries cheerfully answered.

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A Summer Camp for Young Boys (8-14 yrs.)

Let your boy learn early the Lure of the Great Out Doors. We will give him Loads of Fun in

The right place, with the right climate, the right care, the right equipment, the right companionship.

For full information address

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A Summer Camp in the Rocky Mountains for boys. Pack outfits for big game.

Hunting, fishing and camping.

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TIM POND CAMPS

We guarantee fly and bait fishing for trout

Write for Booklet

J. K. VILES & SON, Prop. Tim, Maine

THE COST OF FISHING

(CONTINUED FROM PAGE 311)

days sport and caught fewer fish than I did in my two-dollar row-boat.

The outlet can be reached on foot from the hotel and the stream can be pleasantly and successfully fished dry shod from shore.

Now, why shouldn't these facts be plainly stated on a bulletin board in front of the hotel and why shouldn't the tourist be allowed to rent tackle at a fair price without buying a launch first?

This is the protest of a fisherman who is always ready to pay a fair price for accommodation and who can truly say this is the rawest holdup I have ever encountered.

My protest is not against the price of \$3.50 an hour so much as it is against the system that keeps the tourist in ignorance of this fishing only 1¼ miles from the hotel and the refusal to rent him the necessary tackle.

Just think of the good fellows who have turned away disappointed from that dock, unable to pay \$25 for a day's fishing when, if they had known the place was only thirty minutes distant by row boat or on foot, they could have taken away a golden memory from a trip that they will probably make but once in their lives.

Don't forget to take your bait casting rod and a small brass spinner and Jungle Cock flies when you go to the Yellowstone National Park.

Before dismissing the subject of the Yellowstone, allow me to say a word for the grayling and Loch Leven trout fishing to be had out of Yellowstone station at the west entrance of the park, on the South Fork of the Madison. A bait casting outfit, with a small leaded brass spinner, is the correct outfit to use. You will find Roxy Bartlett at Yellowstone Station a most competent and satisfactory guide.

WHEN you go to Florida you will find good fishing grounds of various kinds in great abundance.

The rental for a launch suitable for visiting the great game fish waters was \$15 per day last year.

Two persons can troll at one time, therefore the cost per day is \$7.50 each. This is very reasonable, in view of the fact that the launch is a 35-footer, capable of taking you into a heavy sea and, what is also of some importance, bringing you back again.

On such a launch I have fished for kingfish in seas so heavy that a big decked over launch, passing within 50 yards of us, went repeatedly clear out of sight into the trough of a sea, as we reeled dizzily back and forth across the kingfish grounds.

Don't try to beat the ocean fishing game for less money than above mentioned, unless you choose to throw dice with death. The best is none too good when you go "outside" for sailfish and kingfish, or comb the great reefs for grouper and barracuda.

If you intend to fish inside the keys in sheltered water for channel bass, sea

(CONTINUED ON PAGE 318)



THE MARKET PLACE



ANTIQUES AND CURIOS

50,000 COINS, MEDALS, BILLS, STAMP COLLECTIONS, antique firearms, historical engravings, newspapers 1769 to 1820, Indian relics. Lists free. Antique Shop, 33 South 18th St., Philadelphia, Pa.

BEAUTIFUL HAND-COLORED PHOTOGRAPHS of the Adirondacks, mounted, 8 x 10. Sample, 35c. Evan Douglas, Saranac Lake, N. Y.

CALIFORNIA GOLD, QUARTER SIZE, 27c; 1/2 size, 53c; Dollar size, \$1.10. Large cent, 100 years old and catalogue, 10c. Norman Shultz, King City, Mo.

FINE MOUNTED SAW FISH, 30 IN., \$5.00; porcupine fish, \$1.50; balloon fish, \$1.50; bat fish, \$1.50; toad fish, \$1.25; all for \$9.00. Grutzmacher, Mukwonago, Wis.

GENUINE INDIAN BASKETS; WHOLESALE. Catalogue. Gilham, Highland Springs, Cal.

SAW TAKEN FROM 17-FOOT SAW-FISH; make offer. Geo. Cantine, Morgan City, La.

AUTO ACCESSORIES

FORDS RUN 34 MILES PER GALLON WITH our 1919 carburetors. Use cheapest gasoline or half kerosene. Start easy any weather. Increased power. Styles for all motors. Runs slow high gear. Attach yourself. Big profits for agents. Money back guarantee, 30 days' trial. Air-Friction Carburetor Co., 550 Madison St., Dayton, Ohio.

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DECOYS, CALLERS, PURE BRED, NO limit. Wild Mallard eggs, \$2.50, 12; \$20, 107. Birds, \$4 pair. English caller eggs, \$5, 12; \$30, 100. Birds \$8 pair (extra drakes). Muscovy ducks, trio, \$8.50; eggs, \$2.50, 11. Mail draft E. Breman Co., Danville, Ill.

FERRETS FOR SALE

FERRETS FOR SALE—CHOICE BREEDING stock, bred females a specialty. Henry Quimby, Elmira, N. Y.

FISH BAIT

JULIAN'S LIQUID FISHING LURE. Doubles your catch. Trial bottle, one dollar. George Julian, Albany Building, Boston, Mass.

MEAL WORMS — A CLEAN-TO-HANDLE bait. A food for aquarium fishes, young pheasants, your song bird, any kind of reptile pet, for attracting nesting birds to your garden, and supplying insect food for their young; 500, 100; 1,000. \$1.50; 5,000, \$5; express prepaid. C. Kern, Mount Joy, Penn.

FISH FOR STOCKING

FISH FOR STOCKING—BROOK TROUT FOR stocking purposes. Eyed eggs in season. N. F. Hoxie, Plymouth, Mass.

SMALL-MOUTH BLACK BASS, WE HAVE the only establishment dealing in young small-mouth black bass commercially in the United States. Vigorous young bass in various sizes, ranging from advanced fry to 3 and 4 inch fingerlings for stocking purposes. Waramaug Small-Mouth Black Bass Hatchery. Correspondence invited. Send for circulars. Address Henry W. Beeman, New Preston, Conn.

FOR SALE

FOR SALE—ONE (1) SHARE OF THE ST. Marguerite Salmon Club. Security Trust Company, Hartford, Conn.

FOR SALE OR EXCHANGE

FOR SALE OR EXCHANGE—14 FOOT trout rod, 3 pieces, 2 tops, lock joints, by Enright Castleconnell; never used; other rods, reels and flies. What offers? W. Hall, 238 Madison Ave., New York City.

FOR SALE OR TRADE—A-1 SMITH MOTOR wheel, for outboard motor. F. Kneeland, Tonawanda, N. Y.

GUNS AND AMMUNITION

BUY, SELL AND EXCHANGE ALL SORTS OF old-time and modern firearms. Stephen Van Rensselaer, 805 Madison Ave., New York City.

FOR SALE—WINCHESTER MODEL 1906 .22 repeater, good condition, \$10; Colt .36 powder and ball revolver, serviceable condition, \$5.50; .40-82 Winchester carbine, new condition, \$13; Seneca vest pocket camera, anastigmat lens, \$11; folding cartridge Premo, single lens, \$5.75. Harold Sinclair, R. No. 1, Charlottesville, Va.

A nominal charge of five cents per word will carry classified messages to our army of readers on farms, in the towns and cities, and at the end of blazed trails.

GUNS AND AMMUNITION

PARKER HAMMERLESS BIRD GUN, 12-gauge, 6 1/2 pounds, 28 inch barrels; Kilby's finest laminated steel; straight grip stock 13 1/2 x 3; a beautiful gun in perfect condition; cost \$125; will take \$75 cash. F. W. Swiss, 186 Bridge St., Northampton, Mass.

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MAKE EASY MONEY—RAISE SILVER black foxes in your back yard, farm or anywhere. Our fox pelts bring from \$400 to \$1200. Feed costs nothing; we tell you all. Particulars for stamp. Todd Bros., Milltown, N. B., Canada.

RABBITS—STANDARD BRED BELGIAN hares and Flemish giants for sale. Wayne Moats, Waynesboro, Pa., Route 1.

RAISE SILVER FOXES—BECOME A FOX breeder anywhere—in cities, south, north, east or west. Not much money needed. Send for particulars. C. T. Dryz, 5244 S. Maplewood Ave., Chicago.

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AMERICAN CITIZENS, 18 TO 60, INCLUDING women, investigate immediately your rights to government employment. Let me send you Form RK 2043 for free advice. Earl Hopkins, Washington, D. C.

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WANTED—MATURE OR BABY SKUNK by July 15th; send by express collect; good price paid; check same day. Geo. Leedom Taylor, Roxborough, Philadelphia, Pa., 633 Hermitage St.

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BILLIARD TABLE, 3 x 6 FEET. BUILD yourself at small cost. Blue prints from scale drawings and complete instructions one dollar. H. G. Smith, 419 W. Hudson, Royal Oak, Mich.

EARN \$25 WEEKLY, SPARE TIME, WRITING for newspapers, magazines. Exp. unnecc.; details Free. Press Syndicate, 529, St. Louis, Mo.

MECHANICAL NOVELTY FOR OLD AND young. Barrel of laughs, amusement and fun. Show your friends and hear them holler; have 2 mailed for a quarter of a dollar. Rullet Co., Hartford, Conn.

PUBLIC SPEAKERS ALWAYS WANTED. Cultivate voice, power, increase vocabulary, pronounce correctly, be convincing. Let me show you how. Stamp for particulars. B. Burke, 10 East 43rd St., New York City.

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\$100 WILL BRING YOU NEW MINNESOTA map showing Auto Roads, Lakes, etc.; also includes list of lands fronting on beautiful streams and lake, which we have for sale. There's an increasing demand for lake frontage in this part of the state and advise purchase before prices go up. Northern Realty Company, thirty years in Duluth, Minn.

FINE COUNTRY ESTATE, GAME AND FISH preserve for sale. Splendidly located within one mile of the beautiful town of Farmington and ten miles from the city of Hartford, lying alongside fine State road; containing about 1,500 acres, two fine trout brooks, four trout ponds, trout hatchery, pools for 100,000 capacity yearly. Deer, fox, grouse, woodcock and quail. Well-wooded pine, oak, maple; splendid game. Cover, houses, garage, barn, kennels and yards in good order. For detailed information inquire of owner. N. Wallace, Farmington, Conn.

FOR SALE—IDEAL LOCATION FOR HUNTING lodge on Yellow River, Burnett County, Wisconsin. Many good fishing lakes in district. River bank overlooks nine-acre wild rice swamp in bend of river. Old timers say best duck shooting in Northern Wisconsin. Forty acres in tract overlooking the big rice swamp. Sixteen miles from Spooner or Webster, 3 miles to inland town. Will sell tract outright for \$600 or will lease for period of years. Members of shooting clubs write for further particulars. R. R. Ling, 333 Palace Bldg., Minneapolis, Minn.

RESORTS FOR SALE

BEAUTIFUL SUMMER RESORT FOR SALE—One of the most beautiful and healthy summer resorts in Canada, situated in the very heart of the famous and popular district of Minaki. The building on the property at present used as a hotel, is built of logs and has rustic and artistic appearance; main building is three stories, contains 40 large well furnished rooms, dining room seats 80 people; large, bright office and lobby; cozy ladies' room, with large rustic fire place and piano. Water system in kitchen, a building used as general store and post office, ice cream parlor with soda water fountain and rooms overhead for staff. Butcher shop, with large ice box, laundry, club house with bar and two pool tables. Two large boat houses, dance hall, tanks for gasoline, petroleum and cylinder oil, with Bowser pumps; three cash registers, machine shop with full equipment of tools, large ice house, containing 150 tons ice, large wood shed, with engine and saw; about 40 cords wood, a stable, 300 feet of wharfs, etc.

FLEET OF BOATS—8 MOTOR BOATS, from a 20-ft runabout to a 35-ft. cabin launch; 4 sailing boats, 13 row boats, 8 canoes, 1 35-ft. barge, 12 1/2 acres of land beautifully treed with pine, balsam and spruce. This very attractive property is situated at the head of Gun Lake, one of the prettiest stretches of water in Canada, dotted with beautiful islands. The whole district is one continuous stretch of lakes and islands for miles in extent; affords the very best of fishing, trout, black bass, maskilonage, pike, pickerel, etc; large game in abundance, caribou, moose red deer etc. It is a huntsman's paradise. The property is admirably adapted for large club house proposition or hotel. Railway station only half mile distant. For further particulars apply to Rutherford Financial Agents 522 Main Street, Winnipeg, Manitoba.

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WANTED—TO GET INTO COMMUNICATION with parties who would be interested in organizing a FISH AND GAME CLUB, as I represent the owners of a very desirable location of about 7,000 acres of good land and on which is a very fine trout stream and plenty of all kinds of game. It also has a large amount of young trees as well as original growth timber. It is near a main line railroad in Pennsylvania. It can be bought for \$4 per acre. Title perfect. Address A. R. Spicer, Agent, Williamsport, Pa.

WATERWAYS TO LEASE FOR HATCHERY purposes near Saratoga. One mile of springs, ponds and streams rising on premises. Also one mile of creek running through place. Adams, care FOREST AND STREAM.



In transactions between strangers, the purchase price in the form of a draft, money order or certified check payable to the seller should be deposited with some disinterested third person or with this office with the understanding that it is not to be transferred until the dog has been received and found to be satisfactory.

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LIONHEART AIREDALES HAVE EARNED a national reputation for gameness, intelligence, and high standard of appearance. They are making good on both fur and feathered game in practically every State in the Union and Canada. Registered puppies that are bred to hunt and fit to show, now ready for delivery. Lionheart Kennels (Reg.), Anaconda, Mont. (Formerly Washoe Kennels).

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COCKER SPANIELS, HIGHEST QUALITY English and American strains; hunting, attractive auto and family dogs; puppies, males, \$15; females, \$10. Obo Cocker Kennels, "Englewood," Denver, Colorado.

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THE LARGEST AND BEST COLLIES IN this country for their age sent on approval. Book on the training and care of Collies, fifty cents. Dundee Collie Kennels, Dundee, Mich.

WHITE COLLIES, BEAUTIFUL, INTELLI-gent, refined and useful; pairs not a kin for sale. The Shomont, Monticello, Ia.

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IF YOU ARE IN THE MARKET FOR A broken setter, we have three, one dog four years old, two bitches two years old, also broken pointer. We have several fine pups. Write for pedigree and photo. Bailey Bros., Bethel, Conn.

LITTER OF VERY HIGHLY BRED EN-glish Setter puppies. Bred to hunt. All papers; \$25 each. Also "SANTEE'S BILLEE," F. D. S. B. 44495, year old, large, color white and orange; thoroughly house broken, guaranteed O.K. He is a dandy. Price \$50. A. H. Hibbard, E. Woodstock, Conn.

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SETTER PUPPIES FOR SALE; WHELPED March 1st; sixteenth futurities; sire, Mo. Don by Mistress Wigg. Sire to dam. Are high class shooting dogs. Wiggs only pup started in field trial placed. Dogs, \$20; bitches, \$15. H. W. Buchanan, Arthur, N. Dak.

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THE BLUE GRASS FARM KENNELS OF Berry, Ky., offer for sale Setters and Pointers, Fox and Cat Hounds, Wolf and Deer Hounds, Coon and Opossum Hounds, Varmint and Rabbit Hounds, Bear and Lion Hounds, also Airedale Terriers. All dogs shipped on trial, purchaser alone to judge the quality. Satisfaction guaranteed or money refunded. Sixty-eight page, highly illustrated, interesting and instructive catalogue for 10c in stamps or coin.

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WANTED—BIRD DOGS TO TRAIN. GAME plenty for sale. Bird dogs and rabbit hounds on trial. O. K. Kennels, Maryland, Md.

HUNTING ON THE UPPER KLUTLAN

(CONTINUED FROM PAGE 267)

four feet in height. By bending low we were able to run three or four hundred yards to the first ridge without attracting attention. As we were still several hundred yards from our game we decided to reach the second ridge, if possible. Getting down on hands and knees and following one behind the other we were able to make it in six or eight minutes. Here we cautiously looked over the top, but could see nothing but an enormous set of horns moving slowly about in a small ravine below. I took a comfortable position for shooting by resting an elbow on each knee and there anxiously awaited developments. The other caribou had seen our horses and had begun to move nervously about. The old lord of the herd observing their uneasiness began to look around and sniff the wind. He saw our horses, but evidently could not smell them.

It is the sense of smell that with the caribou usually produces the fear while the eye often only creates curiosity and so it was in this case. The wind was in our favor. The old bull instead of at once leading his band away decided to investigate. He changed his course coming quarteringly toward us, fearful lest these strange animals might dispute his position as leader of the band. I waited until his entire body came into our view from out of the ravine and then when he stood with head erect, nostrils distended, not one hundred yards away, my mountain gun resounded and a bullet went straight to its mark. He did not fall at once so I sent another crashing through his neck. It was a wasted shot for the first had penetrated his heart and a second later he fell in his tracks. Hubrick came down and hastily removed the head and cape and in the meantime the entire herd, loath to leave their lord, circled and recircled us at a distance of one hundred yards. There were some fair heads left, but none that would justify the waste of life and meat. As it was we left six hundred pounds of choice caribou as feed for raven and bear. Twenty minutes from the time the caravan stopped we were proceeding again to the moose ranges of the upper Genere with a few fine game pictures and one more trophy tucked away on a horse's back.

THE COST OF FISHING

(CONTINUED FROM PAGE 316)

trout, sargent or cavalla, then get any kind of a boat at any price you can secure it at.

Say to yourself: "This great country has some wonderful fishing grounds that of right belong to me, if I have the nerve to go and use them." Other folks use them at small cost, why shouldn't you?

All that it requires is a little nerve to be able to face any situation that might arrive. You will be surprised with what ease a great many seemingly unsurmountable difficulties can be overcome. After all it is the adventure that makes it so attractive.

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NOVA SCOTIAN OUTFIT

THE ESSENTIALS FOR A SPRING AND SUMMER FISHING TRIP IN THE LAND OF MANY LAKES AND STREAMS

By PHIL. H. MOORE



In the following résumé of the correct fishing tackle and clothing for a combined canoe, tenting and fishing trip in Nova Scotia, it is my intention to touch only upon the essentials. Many alleged comforts and luxuries may be added as experiments.

Owing to the method of fishing, which is all from canoes, a little added weight is not any consideration.

It is usual for any well-equipped guide or sporting camp proprietor to furnish a first-class tent, canoes, paddles, dishes, axes, lantern, blankets, etc.

FLY RODS

At least two best quality, split bamboo fly rods, not over nine feet in length nor over 5½ ounces in weight.

REELS

Any make of first class duplicating trout reels, capable of holding fifty yards of line. The writer has used a Kelso automatic reel for the last eight years with wonderful satisfaction, and it is still going strong.

LINE

Fifty yards of best enamelled silk trout line. Although twenty-five yards of line and a five-ounce rod will handle a 3½ pound trout with ease, there are occasions when your flies might get snagged, or lodged in the trees. If your canoe is moving in a swift current, plenty of line gives the guide an opportunity to get the headway off his craft, before the line is all paid out, with the consequent breaking of the leader and loss of flies.

LEADER

Use the best three-loop English gut trout leader of medium weight, not over six feet long. There is no object in using an extremely fine leader, as Nova Scotia trout are not particular. Do not start out with less than six leaders for a week's fishing.

FLIES

Use good-sized flies. The big trout are not apt to notice small ones. Whatever flies you may bring, include six each of the following: Parmachenee Belle, Montreal, Royal Coachman, Silver Doctor, Ginger Quill, Maple Bud.

BAIT-HOOKS

One dozen, with gut attached, the right size for using minnow bait. If the weather happens to be gray, foggy or rainy, the limit can be caught fishing under water with live bait, when the trout wouldn't look at a fly. The fish caught this way are usually large ones.

DIP NET

Use a folding dip net with a handle in two joints. When assembled, the handle should be four feet long; the bow should be of the take-down variety, preferably of steel, and the net itself should

have a minnow bottom so that it can be used for dipping bait.

CREEL

Use a collapsible canvas creel in preference to the basket. If you have an optimistic imagination, buy a big one. If you are pessimistic, get a little one. In any case, you will catch your twenty a day, if you fish.

MATCH-BOX

Should be made of rustless metal and water-tight.

KNIFE

Buy a large, common two-bladed jack-knife with a cork screw (if you are inclined that way). It should have a ring through the handle so that a key chain or other lanyard may be attached. A jack-knife is more convenient than a sheath knife. Pick out one with a good, smooth, round handle, so that it will not blister your hands when whittling, which is a necessary adjunct to a rainy day.

COMPASS

Not necessary, since you are going to travel by water with a guide, and all the streams lead to the sea. If you do get one, buy the kind that you can pin to the front of your vest or jersey.

FLY-DOPE

Trust to your sense of smell in buying this. Pick out the strongest smelling, greasiest looking mess you can find. Nova Scotia black flies are no epicures when it comes to dope, as their sense of taste has been somewhat blunted from years' of indulgence. They have arrived at a stage where they enjoy only the very strongest and rankest concoction. Using a little forethought this way, you will find the flies will appreciate your efforts in their behalf, and hardly bother you at all. Most of your fishing will be done in the wide, breezy streams, and the flies will not molest you unless you loiter ashore in the shade. They do not bite at night.

CLOTHING

Hat—Light-weight felt, with medium brim.

Fly-net—Don't bring one if you like to chew or smoke.

Gloves—Light cotton or kid, with the fingers cut off. They will last only a day or two anyway.

Underclothes—The kind you are used to. If you want to visit Nova Scotia in the latter part of May or June, you will find the nights cool, and you may encounter some rainy weather with east winds. In the Lake Rossignol district, the climate is about the same as Boston, at the same time of year.

Shirt—Don't buy one. Get a light-weight, long-sleeved, turtle-neck wool jersey, and tuck it down inside of your trousers. This will protect your wrists and neck from flies and other insects (if you sleep on the ground) and having no opening in front as an outing shirt has, fools the black flies completely. A flea has nothing on a black-fly, when it comes to crawling inside of a fellow's shirt.

Comfort (SANITARY) camp pillow

SLEEP ON AIR OVER HERE AND OVER THERE

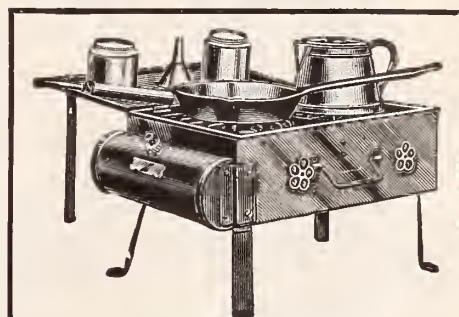
COMFORT CAMP PILLOWS

are so cool and yielding that the most restful, beneficial sleep is assured. These pillows have removable wash covers and are **SANITARY—VERMIN AND WATERPROOF**. Will last for years, and when deflated can be carried in your pocket. The only practical pillow for all uses. **Three Sizes:** 11 x 16—\$2.25, 16 x 21—\$2.75, 17 x 26—\$3.50. Postpaid anywhere in U. S. A. Satisfaction is guaranteed or money refunded. Catalog Free.

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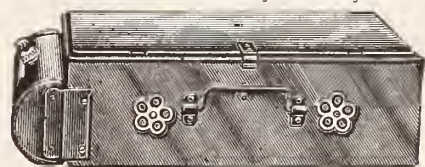
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If your dog is sick,

all run-down, thin and unthrifty, if his coat is harsh and staring, his eyes matted, bowels disturbed, urine high colored and frequently passed—if you feel badly every time you look at him—eating grass won't help him.

DENT'S CONDITION PILLS will. They are a time-tried formula, that will pretty nearly make a dead dog eat. As a tonic for dogs that are all out of sorts and those that are recovering from distemper or are affected with mange, eczema, or some debilitating disease, there is nothing to equal them. PRICE, PER BOX, 50 CENTS.

If your dog is sick and you do not know how to treat him, write to us and you will be given an expert's opinion without charge. Pedigree blanks are free for postage—4 cents a dozen. Dent's Doggy Hints, a 32-page booklet, will be mailed for a two-cent stamp. The Amateur Dog Book, a practical treatise on the treatment, care and training of dogs, 160 pages fully illustrated, will be mailed for 10 cents.

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Socks—The kind the girls knit for the soldiers. Two pairs.

Shoes—Use low, cow-hide moccasins, with an insole. High-heeled boots are an abomination in a canoe. Besides being injurious to the canoe, they are difficult things to swim in, in case you tip over. Carry an extra pair of insoles and extra socks. Oil tan moccasins will not soak water. In case you wet your feet, a fresh pair of socks and dry insoles will make you comfortable with the same moccasins.

Coat—A light slicker or oil coat of ample size, and not too long for walking. A water-proof canvas or duck coat may be taken. Do not bother with sou'wester, rubber boots or heavy-lined storm coats.

Sweater—Take a good, heavy, all-wool, rolled neck sweater coat. This under your canvas coat or slicker will protect you sufficiently from any cold or storm you may encounter.

TO the above outfit you can add as many luxuries and inconveniences as the sporting goods salesman is able to force upon you. A compass to be pinned to your manly chest; a flashlight to accompany your night rambles; a miniature ax in a fancy leather case; a sleeping bag with eider-down furnishings; a sixteen-pound balloon silk tent; a full set of aluminum, interlocking, double-back action cooking and eating utensils; a folding drinking cup in an alligator case; a hot-air mattress for cold nights; a folding bath tub, a tea basket and a wife are all luxuries that add to the hilarity of the occasion. In case of the last mentioned appurtenance, we would suggest that she wear the same kind of clothes as her man—with one or two exceptions.

A Nova Scotia fish license costs \$5.00, and may be obtained from the fish warden at Caledonia (on the Halifax & South Western Railway), if you are going to fish in the Lake Rossignol waters, or from any fish warden in the town nearest to your contemplated fishing territory.

FOREST FIRES KILL FISH AND GAME

A REPORT of the Minnesota Game and Fish Department points out that the fire which swept over large portions of three different counties in Minnesota last October causing the loss of hundreds of lives and millions of dollars worth of property was also very disastrous to fish and game. Fish in shallow streams were killed by the intense heat and were smothered by ashes. The hundreds of charred carcasses of deer and game birds as well as the singed and scorched animals still alive testified to the terrific toll taken by the fire.

In the patches of timber left standing in the burned area fugitive deer concentrated, and had not special regulations been passed, undue slaughter of these animals would have ensued during the open season. An order restricting hunting in and near the burned over areas met with general approval and undoubtedly saved the lives of sufficient deer to constitute a breeding stock.

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By
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It gives descriptions and portraits of all the ducks and geese known in North America; tells where they are found; the various methods practiced in shooting them; describes the guns, loads, clothing, boats and dogs employed in their pursuit, and generally is far and away the most complete, useful and entertaining volume on the subject that has ever been published. It covers the whole field of North American wild-fowl shooting.

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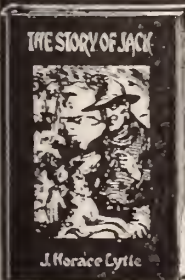
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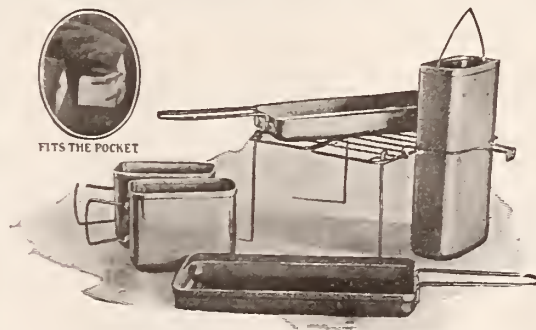
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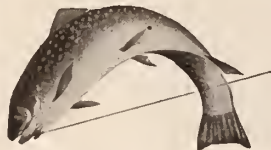
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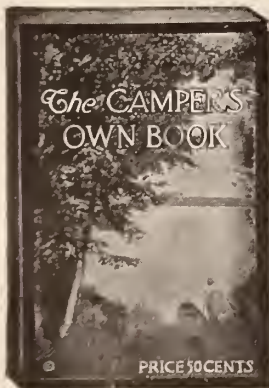
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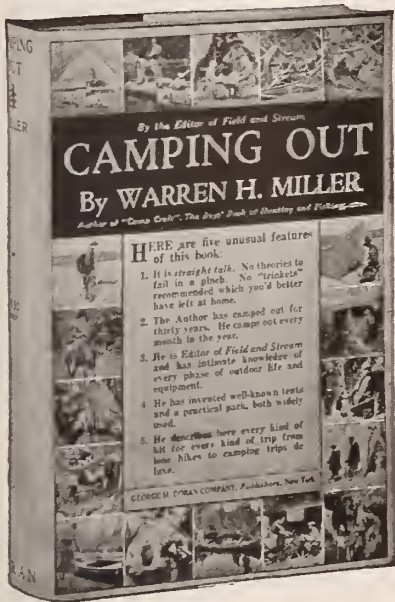
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No. 7

ANGLING FOR THE GAMEY BASS

THIS STRATEGIST OF THE LILY PADS TEACHES MANY A LESSON IN PATIENCE TO THE FISHERMAN WHO WOULD MATCH HIS WITS AGAINST HIS ABNORMAL CUNNING

By BEN C. ROBINSON

FISHING for black bass to the beginner in the sport has all the deep elusiveness of the average thimble-ringing game, and is about as profitable as most virgin efforts. But in contrast to that historic pastime, the novice at the grand old game of bass fishing does not part with his time and wallet and leave the entertainment with a feeling of self-abasement and a yearning to wander far away from his humiliations, to crush from his soul the recollections of that tragic event.

Instead, he trudges home with the setting of the sun over the rounded western hills, a determination in his heart to return the next day and learn more of a lesson that calls to him of a land sweet with the scent of the willows and the bass-woods, and of a wily old chap that has taught him the lesson of patience, and esteem for a few pounds of whalebone activity and abnormal cunning—our old strategist of the lily pads and the hidden pools, Mr. Bass.

To angle with success for the bass one must have a good understanding of their peculiarities, and that means close observance of the bass streams in your neighborhood or where you are in the habit of spending your days off.

When fishing a stream the angler, who takes the requisite amount of pleasure that marks the true lover of the sport, will have his eyes open for signs of his

favorite quest. In working a stream I never neglect to carefully mark and remember those places where I might notice a feeding bass. They are not afflicted with the wanderlust, the black bass. They are home lovers in their way and where once seen might be expected always.

In the spring months when the bass

makes himself known by leaping, with a great splatter of water, high in the air after his lunch on minnows, is a mighty propitious place to gently drop an active chub or a well tailored artificial lure upon some bright morning just as the dawn streaks the east with its delicate banners of a departing mist.

Drop it just at the place where you are



An overflowing creel of plucky old warriors

are passing through their spawning season is the best time to mark these haunts. At that time the old bass builds her nest among submerged boulder drifts and mounds. Always on the lookout for trespassers over her dominions, she keeps the water swirling with her savage rushings. It is a safe supposition to form that even after the spawning season is over there will be some lusty old bass lurking about that submerged stone mound. Where one of these despots

in the habit of seeing him hold his banquets and reel it in slowly and steadily; those are the times and the places that mark good ones for a creel. Unless one chances to be working a strange stream he can save himself a vast amount of hard and useless casting by marking these loafing places of the bass, for it must be understood that even in the best stocked streams there are barren stretches that will not yield enough to repay the efforts expended in whipping them.

These haunts that I speak of will of course receive the attention of a true sportsman only at those periods of the year suitable to taking a fish. A conscientious angler will scorn to cast a lure over the nest of a bass in spawning season.

TO go into the details of the subject on the haunts of the black bass, it will be necessary to cover the stream very thoroughly and even then it might be safer to insert the warning that an

eccentric old lad will sometimes be found outside the customary places. The most general idea is that bass are essentially lovers of the shadows and deep cool waters. This is all true enough but does not prevent the wise fisherman from dropping a lure in the wide, bright ones; there is where the chances are mighty good for raising good big mouth.

The big mouth bass will be found in more open pools where there are sand bottoms or even mud bottoms, not necessarily requiring any cover and disregarding currents also. Sluggish, warm pools will appeal to him. In this characteristic he differs widely from the small mouth bass. The small mouth is rarely ever found where the stream does not boast of a gravelly or bouldery bottom with a plentitude of shade and cover.

Sunken log drifts, submerged boulder piles, drifted brush and tree tops are more to his liking; under the lee of grassy banks, undercuts among tree roots, in the shelter of weed and brush coves and among lily pad aprons, all places of the kind must be viewed with expectancy by one who is after the small mouth. Some

me to look upon all such balderdash as emanating either from some "take it easy" sportsman or from one who fishes possibly a week out of the entire season and then goes home under the hallucination that he knows all there is to be learned of the bass fishing game.

He rummages through the public library for reference books, remembers a few things his guide might have dropped broadcast as exercise for his entertaining abilities, and writes a couple of dozen fair sized books upon how and what to do. If its bass you are going after then take a tip from one who realizes that what he does not know about this eccentric gentleman, black bass, would make much better reading than what little he does know, and keep after them.

It would be a good plan for the man fishing for bass to fasten into his hat band the simple recipe that will unquestionably catch the fish. Work for them, and work for them from sunup to sundown; that is the thing to bring about a full string of the game rascals. And therefore do I say: Consider not the morning and the evening hours as the

AS to fish taking food only at set hours of the day, I do not see anything to it except as a theory. Practical results destroy any such teachings as unworthy of consideration. Of course it must not be concluded that I mean it to be understood that the morning and evening hours are less profitable than the middle ones, or for that matter as apt to yield the same quantity of fish in a corresponding area of water. They will not, generally speaking, because of the fact that at the regular feeding hours the fish are in the habit of congregating at those places where their natural food exists. The thing I attempt to point out is the fact that those hours, supposed to be lost, might be well improved by the conscientious and vigorous angler and turned into profit, winning bass to be proud of.

It means work and plenty of it to whip a stream during the heat of the day, and as a rule no great quantity of fish will be taken out at any one place, as happens during the feeding hours, but what are creeled will most generally be ones that, considering pounds and inches, which means a worthy opponent to test your skill, are the best that the stream affords; the big ones seem to be the more active in the heat of the day.

Then as another very vital consideration in the summarization of bass haunts, there occurs the presence of weather conditions. Weather has as much to do with the yield of a stream in filling the creel as any one of the other conditions which have been dwelt upon. There again appears a wide variance of opinions, all of which are more or less well founded.

Personally I lean toward a calm stream for my best fishing. This will be looked upon with disfavor among a great many of the brotherhood but past results have forced me to give a calm surface the preference. A slight breeze ruffling the water, though, is not at all objectionable and in some cases helps matters along, but I do not favor a strong run of rough water unless it should be for trolling with a deep working artificial lure, or still fishing in very deep water. In that case the depth of the bait will place it past any disturbance of the more agitated surface. All in all, though, I favor the calm days or the evenings with their delicate ripples. Cloudy, cool days are oppressive to the fisherman and do not stand high as a successful time for bass fishing.

Just previous to a heavy thunder storm or shower of rain, the bass assume an active state and without question it is a good time to have a lure out; then the fish seem to sense an influx of their natural food. I have oftentimes thought, or it might be that for some unexplainable reason the unnatural restlessness of the atmosphere, that one notices previous to a storm, might affect the fish and drive them forth from their hiding places in the same manner as one will notice children and geese racing about with an abnormal hysteria. It is possible that the fish are affected in the same way and grab at anything which might come before them no matter what shape it presents or how strangely it seems to act.



A game old aristocrat of the singing waters

of these places that have been mentioned are profitably worked only at special periods of the day, because of the fact that they are favored by the bass either as feed grounds or as a place of shelter and rest.

The weedy coves where there is a good depth of water, the sunken rock piles and beneath the log drifts are the places of idleness and lookout. In the heat of the day those places should receive the fisherman's attention, leaving the shallow water along the lily pads and on the sand and gravel points to the morning and evening hours.

I notice there seems to be a prevalent attitude among those who express themselves as authorities on matters of angling, to discourage activity on the part of the angler at those periods of the day occurring between the early morning and evening hours. The bulk of the writers and experts talk this sort of thing, which I must say is in strict opposition to my own personal ideas of the bass fishing game; and why? Because of the convincing fact that actual experience along many a stream of the past has taught

only ones when bass can be taken, but rather study where and when they are most likely to be, at the different periods of the day.

Some of the best bass of my experiences have been taken out in the hottest part of the day; in fact, personally, the noon hours and early afternoon, if anything, are more favored by my efforts than any other time. The feeding grounds, it must be understood though, are as a rule deserted at this time and those places where the water is deep, under the logs, at the edge of the weedy coves and over the underwater rock drifts are the places to confine your efforts.

Make your casts as near where you figure them to be resting from the heat as possible and very carefully manoeuvre your bait, if it should be a natural one, about in the vicinity. If it should happen to be an artificial offering place it beyond where the fish is expected to rest and try to manoeuvre it as near him as the place will allow.

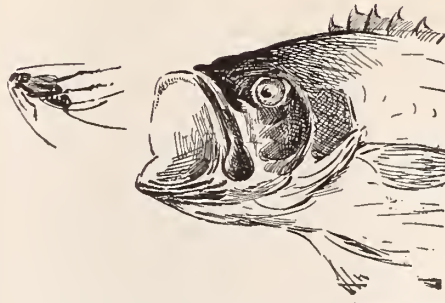
This is one of the surest ways of attracting the attention of this wiley chap.

I have noticed that unnatural disturbances of various kinds will sometimes cause an erstwhile dead pool to awaken with a rush and yield a spasmodic quoto of strikes. I have observed this thing occurring when a wagon was being driven across a ford below a pool, or a bunch of boys swimming and splashing about nearby. There is something about the action of the water at these times which undoubtedly does cause the fish to grab anything foreign looking.

About the fact of a rain storm causing restlessness in a pool, I believe this to be due to the reason of the fish's understanding that the rainfall will dislodge insects and larvæ from the overhanging branches of thickets and trees along the stream, causing them to fall into the water, a prey to their activity, or flooding the stream so that worms and bugs might meet with a similar fate. At any rate just previous to a rain has been the favorite time always among men who angle, to cast their lures to the fishes of their choice.

AS a bass bait I am personally wedded to the run chub; the sturdy, pink kind one finds in the cold, crystal waters of a small brook that are as yet not far from their birthplaces in the shaded coves. They are vigorous and hardy and furnish a tough covering for a hook.

One thing that should be considered, though, in collecting the bait, is this: Those minnows taken from fresh water of a low temperature will give better satisfaction than baits from warm, sluggish ponds or bayous. Be sure and keep



The savage strike of the ferocious bass

the bait bucket filled with fresh water. Have a bucket with a good surplus of room and change the water as often as possible.

When minnows are noticed swimming to the top for air, the water needs changing. The inside compartment of the bait bucket should be immersed in the stream when fishing; never allow it to knock around on the shore or in the bottom of the boat in the hot sun.

A good method to preserve a bait that is already attached to the hook, is to place it back in the bucket and fasten the covering over the line. The bucket can be carried from place to place by allowing enough line to run from the reel so as not to strain the tip of the rod. In this way a bait can be used for double the time then by carrying it around, dangling at the end of the line in the air. Remember always that a vigorous, healthy bait is the one requisite to success on a bass stream. A bass is the most fastidious of feeders, a crippled or groggy minnow does not appeal to him; he wants his dessert served up

in the shape of a darting, spry chub, someplace in the neighborhood of four inches in length.

The greatest of care should be exercised in casting with the live minnow. They are at best a fragile piece of property and careless work will result in a depleted bait can, with nothing to show as the result. Before making a cast on a pool that you are not familiar with, take a little time and look about to see that there are no obstructions or weeds or brush to catch the bait at the commencement or finish of the cast. If there should happen to be anything of the kind, and it is not noticed at the time, a lost or mutilated minnow will no doubt be the result.

Never allow your bait to strike the water with killing force. Place it out as gently as you would a dainty fly. It can soon be learned and the pleasure of seeing a nice industrious bait coming back, instead of a reeling pale thing, dead and worthless, will more than repay one for the little time and care that it costs to learn.

I have fished with anglers, who, through long years at the game, should have known better, who would retrieve their bait as though it were some sort of a cast iron affair, with the result that they were always weeping and swearing at their ill luck. To keep an efficient, live bait, reel the minnow in slowly and evenly, lifting it gradually to the surface, playing it about in all the likely spots; if he is in there this method will raise him.

It has been proven many times by anglers who are well-skilled in fishing.



Cast your lure in the lea of some little bush-covered, rocky is land for there is where the black bass love to hide and feed

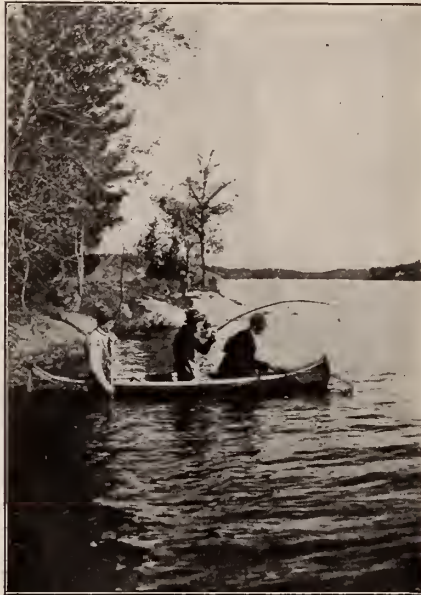
THE primary object of the entire game is to find your fish. By this I mean locating where the bass are feeding; then approach the place quietly; there is really no need of creeping up on a bass, as the general run of anglers seem to think, as though he were some sensitive, cowardly person; just approach with a little care, no unnecessary racket and drop your bait where you have seen him feeding or where your acquaintance with such matters leads you to believe him to be.

Let the bait come in, if the cast should happen to be a good distance out, swimming about in its natural way, only keep up the slack line with the reel; then when it has reached the length of the rod from where you stand, lift the bait gently and very slowly toward the surface, to within a few inches, so you can see the minnow, see that he is active then ease it down and swing in a circuitous manner about the vicinity. If old Mr. Bass happens to be about that part of the country and looking for a hand-out, its a safe bet that there will be trouble brewing for that particular minnow.

When the bass takes a minnow he signals the fact by a strong tug or two at the line, and swims about with the bait, usually in a series of circles. This is oftentimes the action of the bait, if it should happen to be an extra vigorous one attempting to escape from the menacing black shadow near him. Sometimes, though, the fish will take the bait with a rush and run for a sheltered spot to feed. The first mentioned characteristic is usually his way of starting the battle. After he has played the bait in this manner a few seconds the line will be noticed to start steadily away—then give him a free spool, in fact help him along.

Strip off a quantity of the line and

feed it to him so that there will be no hinderance to jerk the bait from his mouth, for remember, he has not swallowed the bait at all; he only has it grasped in his mouth sideways and the least opposition to his progress on the part of the rod holder will result in dislodging the minnow from its place in his mouth, breaking its back possibly or crippling it so badly that the bass will have nothing more to do with it. Therefore I insist that nothing be allowed to retard his run; after he has reached some good shelter, among a clutter of rocks, under logs or brush or an overhanging bank the wise old gentleman will stop, turn the bait in his mouth and start gorging it. At this period which I have just described there are no doubt more bass lost than at any other stage of the game. It calls for a steady hand and a keen idea



Bringing him to the net

of the old battler's very eccentric habits.

When he stops to turn the minnow, preparatory to gorging it, hold the rod perfectly still; anything in the nature of a strike will ruin the whole affair.

At this period take up all the slack gently and press the thumb firmly against the spool; it will only be a second or so before the kick comes in the nature of a couple of sharp jerks. That is when he feels the prick of the hook—then strike!

A word or two in regard to the strike might not come in amiss here. It does not mean an attempt to smash the rod tip, this thing of striking a fish. The primary motive in striking with the rod on a fish is to set the hook firmly into him before he has a chance to spew it out when he feels the barb. A slight turn of the wrist, with the thumb held firmly on the spool, is all that is necessary to hook your fish good and solid. Almost without exception every bass that gives me the chance to follow out this rule is hooked deep in the gullet.

There are exceptions, of course, to this system which I have described. Certain localities, especially in the small streams where there usually exist a great variety of danger zones, will not permit of the privileges mentioned. Old log piles show their warning outposts beneath the surface. Brush and weed strips are about and the angler must disregard the temptations of giving a wise old bass his wishes.

Under these conditions the entire plan must be changed and reformed to meet the emergency, and that upon very short notice. A firm rod will sometimes turn the stunt if the bass happens to be a good one and a determined minded sort; a firm rod, but remember an unexpected or premature shock will dislodge the bait. (If you work it right, in a case of

(CONTINUED ON PAGE 368)

AFTER BEAR WITH BOW AND ARROW

A REVERSION TO THE HUNTING IMPLEMENT OF OLD DAYS, WHEN MEN DREW BOWS ON SAVAGE GAME, BRINGS SUCCESS TO VENTURESOME HUNTERS OF TODAY

By SAXTON POPE

KILLING a bear with a bow and arrow is a very old sport. It ranks in antiquity next to killing one with a club. However, it is not in fashion at present. We are likely to forget that such a thing can be done if some one doesn't do it once in a while and tell about it.

This is a true story. There wouldn't be any fun in lying about it. It seems more improbable just to tell the truth.

The first requisite in bear hunting seems to be the bear, and the next is a bunch of good bear dogs. So we looked up the man who owned the dogs that re used to hunt the bear.

Up in Humboldt County, California, nore bears are killed than most people know about, and Tom Murphy does a good part of the killing. He got his first bear when he was fourteen years old, and he has shot from eight to

eighteen bear every winter for the past thirty years. Tom has the finest pack of bear hounds in this neck of the woods. They have been in the family for years and never hunt anything but panther and bears. At present there are five dogs in the pack. With one exception, they are fox hounds with a touch of bloodhound. They came originally from the State of Kentucky, and they are about the most intelligent dogs that I ever saw. When these dogs strike a cold track of a bear, they dance about and yelp in a most bewitching manner. When they hit a hot track, on the run, you can hear their music for miles. Just to hear them bay rouses up some pretty old and powerful thrills in a hunter's breast, and when the bear comes crashing through the brush down the canyon, breathing like a quarter horse, with the dogs in running, it sure-

ly is a great and glorious sight to behold.

Bruin is the king of the forest and does not get out of the way of any beast, but he greatly fears a dog. The great majority of the bears killed in this country are treed by dogs before they are shot. Murphy thinks he has killed over three hundred bears, and he only got three of these without dogs. Very few other hunters in these parts ever see a bear, much less kill one. If you have not got dogs, you get no bears.

ARTHUR YOUNG and I have been shooting the long bow for the past four years, and have killed every sort of game from ground squirrels up to deer, and now we thought we would like to try our hand on bears. Murphy was taken with the idea, but was a little skeptical. The wise old boys around the ranch laughed and joshed us. They had

all shot the bow when they were kids: "Why an arrow wouldn't stick in a bear, much less hurt him. It would only tease him," they said.

We showed them our big, strong yew bows, pulling seventy-five pounds, and the dangerous looking arrows, with steel heads nearly two inches long and over an inch wide and sharp as a butcher knife. They tried the bows but they couldn't pull up an arrow half way. Then Tom sat out an old dried bear hide on the corral fence. I shot a broad head through the thick skin of the neck and a paw which dangled behind. Then we shot some blunt arrows through an inch pine board, and they got another view point on archery. But still they shook their heads.

Well, anyway, Tom said he would take his old 32 W. S. along just to protect the dogs. It was bad weather, and we made four unsuccessful hunts without getting sight of fur. Tom said he had never gone out so many times in his life without bringing home a bear. He thought the bows were a hoo-doo.

On the fifth trip, out about fifteen miles from the ranch, in Panther Canyon, we struck a fresh track. In just about half an hour after we loosed the dogs we had a bear treed. It looked as big as a horse 'way up there on the limb of a tall fir tree. We had run up a mountain side through hazel brush and were pretty well winded, but we helped Tom catch the dogs and tie them up, because he would not have one of his dogs hurt for three hundred dollars, and you can't tell what a bear will do when he is wounded.

WE had plenty of time, so Young and I stationed ourselves some thirty yards or so from the tree on the hill side and prepared to shoot. The bear was about seventy-five feet up in the air, so that our distance from him was about forty yards.

We drew up our bows together and let drive. Both arrows struck her full in the chest, and went completely through, feathers and all. That made me feel good! Quick as a wink, the old beast wheeled about and began scrambling down the tree. Tom yelled for us to run up and shoot her again.

As this was our first bear, we were a little diffident about getting too close to her, and we lost a little time looking at the funny way she came down the tree, but we got to the base at the same time she did. We let her have a couple more arrows as she landed, but she did not stop to argue. As the Germans say, "She made an orderly retreat," at the rate of about forty miles per hour, down the canyon.

Tom was disgusted. "You missed her," he said. "Why didn't you run up and soak her in the heart, the way I told you?"

We swore we had her. "Give her time and she will die," we said. He wasn't going to loose the hounds on a wounded bear, but he turned Shep, a wary old cattle dog, after her. He would keep out of her way.

Soon we heard Shep baying her. Tom



Tom Murphy with two of his best bear dogs

was incredulous, but he turned the hounds loose. We followed hesitatingly. A quarter of a mile down the gulch, over fallen timber, through brush, with quivers rattling and bows catching in everything, we ran like deer or devils. Sure enough, the dogs had her up a tree again. She sat astraddle on a limb of another Douglas fir, not twenty feet from the ground. She was badly wounded and could not climb higher. Young and I drove two more arrows in her and she dropped to the ground. The dogs heeled her and old Shep went flying past, hanging on to one ham as he ran.

But she didn't travel far. Up a nearby oak, not over eight inches in diameter, she scrambled like an acrobat and swung out on a limb in full view. She didn't seem to know we existed. Her mind was entirely taken up with dogs.

YOUNG and I got within twenty yards of her and shot arrow after arrow through her body. They did not stick in and dangle. They

went clear through. She was in a bad way, gasping for air and slipping farther out on the bending limb of the oak. At last Young drove an arrow over her eye and she tumbled out of the tree, crashed to the ground and rolled over and over down the canyon.

The dogs were at her throat as she fell, and by the time we got down to the stream where she lay, she was dead as a door nail.

Young and I shook hands. Tom opened her up. She had died of collapse of the lungs and pulmonary hemorrhage. Seven arrows had gone through her chest, some cutting one or two ribs in their course. Only one arrow remained in her, and the broken end of this was lodged six inches in her head.

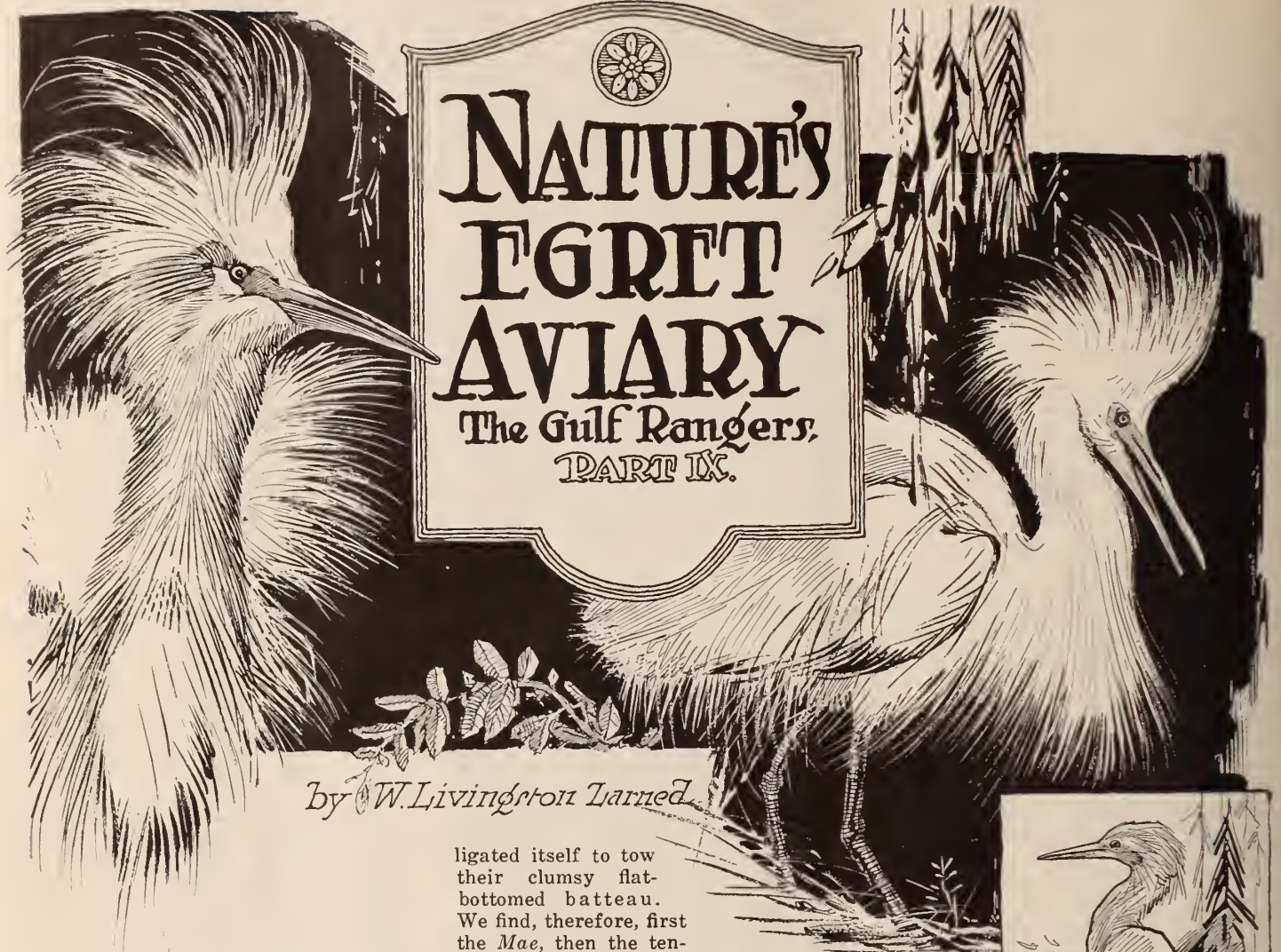
We concluded that we had really killed her with the first two shots—if we had only waited. We had kept on shooting because we didn't know when to stop.

Tom gave the dogs the liver and lights, and started off for the horses.

She was a three-year-old bear and
(CONTINUED ON PAGE 382)



The bowmen, Arthur Young and Saxton Pope with the victim of their prowess



NATURE'S
EGRET
AVIARY
The Gulf Rangers,
PART IX.

by W. Livingston Larned

The King Party Finally Reaches the Most Primitive Area of the Ten Thousand Islands Territory and Obtains Indisputable, Colorful Proof of Illicit Egret Hunting. A Stop at the Notorious "Watson Place." John in His Element at Last. After Red Snapper, Pompano, Mullet and Barracuda. A Tarpon Strike. Chatham Bend River Provides Some Interesting Sport. Studies of the Water Fowl.

VERY early in the morning of January 1, the *Mae*, towing a remarkable assortment of smaller craft, pushed out into Chokoloskee Bay, from that shell island which had offered so much of thrill and interest to the King party, and began her gulfward journey. For, with the taking on of two additional members, the expedition also ob-

ligated itself to tow their clumsy flat-bottomed batteau. We find, therefore, first the *Mae*, then the tender, and finally the stranger's boat, followed by John's pet, that invincible little glade skiff.

"Looks like a nautical circus procession," was the boy's amused observation, as he glanced back at their collection of bobbing trailers, "and there's some tide going out, too. If we ever get in the way of one of those oyster bars there'll be a fine mix-up!"

It was almost a prophecy, for one-half hour later, with Hendry at the wheel and the *Mae* making not over four knots an hour, the current managed to disarrange his plans and with a grinding noise that gave all on board the shivers, the power boat went aground on a treacherous bar. In another moment half across it, her stern reared five feet in the air, and she hung there, helplessly.

There was nothing to it but to jump overboard, in water up to their thighs, and do some tall hustling. The three smaller boats were pulled across to the shore, a distance of a hundred feet, and made fast, until the problem could be solved. This accident had happened at



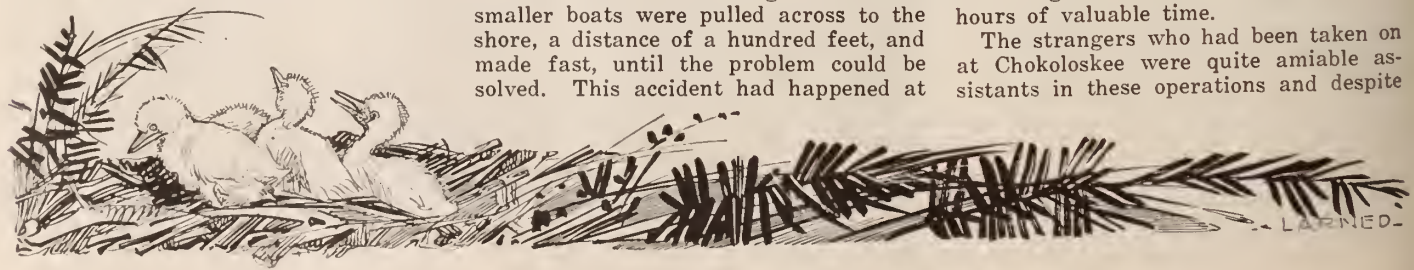
LITTLE BLUE HERON

the mouth of the river, in Chokoloskee Pass. Every foot of the way was mist-draped.

Hendry said several phosphorescent things that we had best not put in print.

A number of small mangroves were chopped down, the branches clipped off, and, with these as levers, the *Mae* was finally worked over the bar and into deep water again. But this consumed two hours of valuable time.

The strangers who had been taken on at Chokoloskee were quite amiable assistants in these operations and despite



LARNED



Look sharp! There in the distance are the egrets, herons and blue-legs, winging across a bleak stretch of saw grass country.

the suspicious circumstances under which they had been taken along, the others were inclined to look upon them with less misgivings.

The entire party were now on the *Mae*, although the belongings of "The Man with the Red Beard," and his younger companion were still deftly concealed under a tarpaulin in their own batteau.

At eleven o'clock after a decidedly tortuous passage, they came to the innumerable mangrove keys at the mouth of the pass, and a second halt was necessary because of the *Mae's* coquettish motor. And it was during this lull in proceedings that John dropped a line overboard. He had only salt pork for bait and was trusting to luck to land something, for the pass was known to be filled with fish.

Hendry was the first to see the boy as he began a dance on the deck, having evidently made some sort of important strike. A moment later he had thrown a wriggling, thrashing object almost at his feet, and before the guide could reach him, he was attempting to extract his hook from the mouth of an enormous brown moray, no less than two and a half feet long.

Hendry made a leap for John and dragged him away.

"Big little fool!" he exclaimed, "rather have water mocassin or rattlesnake bite me than moray. Him dreadful poison. Kill quick. No do anything."

Mr. King was ready to verify this statement.

And he, too, cautioned John against ever getting on too familiar terms with the brown moray of Chokoloskee Pass.

"If that thing had bitten you," said he, "we might have had to carry you back to Miami in a pine box. Its bite is venomous to a degree."

"Yes, but you have your medicine kit," John answered. He had every confidence in his father to cure all ills.

"It's just as Hendry tells you," Mr. King continued "the moray is a dangerous customer. There would be but one thing to do: a quick rope or cord tourniquet above the wound—as tight as we could make it. Then hypodermics—a circle of them—of permanganate of potash in solution around the actual wound, followed by jabs directly in the wound." John, Jr., was visibly impressed.

"And what does that do?" the boy demanded.

"Permanganate of potash is a vigorous germicide," said his father, "it has peculiar properties all its own. Its tendency would be to nullify the germs and force them to the surface. You would have an ugly looking limb for a while and, finally, the poison would come to the surface in the shape of an ugly sore. But it would be better than dying, that's sure. All of this would have to be done quickly, of course. I never travel in these parts without the hypo needle and a phial of the solution."

"A good drink of whiskey is the stuff for snake bites," interrupted one of the strangers, who had ambled up.

"And that is where you are mistaken," Mr. King quickly replied, "when will people get that fallacy out of their heads. The heart stimulus of alcohol is short-lived and the let-down afterwards far from beneficial in cases of this kind. Never use whiskey for snake bites, my

friend. The heart must be stimulated, of course, for snake poison tends to immediately weaken the action of the heart, since the blood takes it up instantly, but strychnine is effective. And morphine—you notice that it is part of our equipment. Those who fare forth into far and dangerous places always take a supply of this drug. It is the court of last resort. A leg is broken—a wound is suffered that will never be healed—death is inevitable. Rather than die a lingering death these unfortunates end it all by the easiest route. I refer, of course, to cases where a man is out on a solitary expedition—alone. By the way, there is another method of using the permanganate of potash—perhaps an easier way. It may be had in crystals. The bite is slashed, to considerable depth, and the crystals smeared into it—this, you understand, after the tourniquet has been set."

After this little lecture, John, Jr., made a mental resolve to give morays a wide berth in the future. But he did catch several edible fish before the engine was repaired, and their trip resumed.

At three in the afternoon, the *Mae* had reached Pavilion Key, where it was decided to stop for a short while, en route to Chatham Bend River. For the last lap of the memorable journey was to take them up this picturesque stream and well into the interior.

Pavilion Key is a picturesque sand ridge in crescent form. Around and about it are innumerable fine oyster bars, and some of the lower sand ridges are subject to overflow during those sweeping tides of the gulf.

Like explorers upon a desert isle, the five members of the party walked around the crescent in the brilliant afternoon



Thinking it all over in camp and deciding that life in the big outdoors has everything else beaten a mile.



The famous "Watson Place" on the shell mound on Chatham Bend River. They tell of black deeds enacted here and the entire locality has an unsavory reputation.

sunshine. The oysters were sampled and were of excellent quality.

Mr. King guided John up a slope to a sort of little plateau, grown over with stringy brush and trees.

"There," said he, "is a fairly representative type of the manguey. It is a species of tropic cactus and seems oddly out of place in this part of the country. And yonder is sisal and Spanish bayonet. This can mean only one thing: our birds of the West Coast migrate southward, to Cuba and as far as Yucatan. As they come back, in the spring, the droppings of seed on these occasional keys, brings the sort of vegetation that belongs to distant lands. You will not find these plants inland.

"On the East Coast, however, there are traces of many trees and plants that are natives of the Amazon and Orinoco region. The birds are also responsible for this."

A coon, plump and sassy, was discovered in a tree, but John's rifle choked and while he was fumbling with obstinate cartridges, Mr. King had a pot shot at the little animal. It dropped to the ground and Hendry skinned it. The pelt was fine.

Swimming in the shallow tidal waters over the oyster bars were many strange and even beautiful fish. All in all, they did not regret stopping at Pavilion Key—a wild and primitive place, storm-beaten and alive with romance.

But time was passing, and they must continue their journey, for it was absolutely necessary to make the shelter of Chatham Bend River before nightfall. The going was slow, because of the still cranky engine—a woe that had followed them these many days, and the *Mae* did not run through the complex channels and into the mouth of the stream until late in the afternoon. The river was choked with mangrove islands and it required the best that Hendry had in stock to negotiate safe passage. Despite the shoals and the tide and the trailing boats, however, it was accomplished and they came upon a very wide and very wonderful stream, at least 100 yards wide, continuing so, as far as eye could reach.

To the right they spied an immense

shell mound, covered with luxuriant vegetation, but the predominant sky-line was one of mangroves. One mile further on, Hendry pointed to a dim light ashore, to the left, and the shadowy outlines of a human habitation were visible.

The guide had heard of this place and it was interesting to watch him, as he shrugged those big shoulders of his and grimaced.

"Old Watson plantation!" he grunted, "very bad. He get men to come work on his place. They stay mebbe one, two year. No pay. When debt get big, Old Man take 'em on hunting trip and shoot. Then bury in mangrove swamp. Debt paid easy—see."

And everyone saw.

It was at this juncture when they were almost opposite the ramshackle dock, to which a motor boat was fastened, that the engine went dead and the lively current began to sweep them up-stream.

A man suddenly appeared on the shore, waving his arms.

"Anything I can do for you?" he

shouted, curving his hands over his mouth.

"Guess we can make it," answered Mr. King, "is it all right to anchor off shore here for the night?"

"You bet," was the rather cheery reply.

It should be mentioned in passing that Old Man Watson, long famous in that wild country has long since passed into the happy hunting ground of Bad Men. We wish to diverge a moment and quote from a FOREST AND STREAM reader who sent in this significant paragraph a month or so ago:

"The stone over the grave of that Audubon Society warden on Cape Sable is a very pretty piece of brown stone. I visited it last year. But what do you expect—he butted in on the local plume-hunting industry. If Larned wants a story tell him to get it from George Storter, of Allens River—the story of Watson, who lived on Lostman's River (the correspondent is in error here, for Watson lived on Chatham Bend River), and made a business of killing for the pure love of the thing. I visited the stand from which he shot his victims and found the skeleton of the old woman he killed and which one of my friends helped to bury. Watson died facing a bunch of men at Chokoloskee. They buried him on Rabbit Key, waking Storter up in the middle of the night to pronounce him officially dead. This was easy. He had twenty-one bullets in him."

All of which is according to Hoyle. Another correspondent whose interesting notations appear in a letter on page 353, tells more in detail of this same rascally old murderer, and we will therefore refrain from repeating the Watson life narrative. Watson left these parts for an even hotter climate some six years ago, and his plantation is now owned and operated by D. H. Whitton.

The present owner has gone in for sugar cane and has thirty acres under



Pompano and oysters furnish fresh, clean food for the cruiser in southern waters.

cultivation. The syrup that he makes is a delight to the palate. Our adventurers bought a gallon jug of it for sixty cents—think of that—and can bear witness to my statement.

In a whisper, we may confide, that the sugar cane yields one other product. When fishermen need bait of a slightly different kind, it may be suggested that perhaps aguadente can be had in this neighborhood. It is a most excellent quality of rum, and certainly warms the cockles of the heart when a chap has been out in a drizzling night rain after gunning for 'gators—or "shinin' dem eyes," as local vernacular puts it.

The man on shore disappeared after his opening salutation, and with things put in good order for the night, John and the two newcomers took boats for some fishing on the river, as there was still a half hour of daylight. It proved a successful venture.

Mullet was used as bait and John alone caught a fine mess of pan fish—salt water perch and sun fish. Hendry was for more interesting game. Armed with a fish grain, he stood aft, on the *Mae* and speared three as handsome mullets as ever a sportsman wants to see.

It was a case of early to bed and early to rise, for all hands were fatigued. Nor was there any inclination, when morning came, to stir up the Old Watson place. That would come on the return trip.

The *Mae* was going nicely now and as they ascended the river, John and the newcomers trolled. It was a worth-while chance, for a number of red and black mangrove snappers were secured. This was facilitated by the zig-zag course of the boat.

Whitton himself had doubtless staked the river, over its bad places, and the *Mae* went from one bank to the other in a series of slow manœuvres.

THE anchor was dropped at noon at the south easternmost end of Chevelier Bay, a companion body of water to Chokoloskee and bred of the same stuff. A five-foot draft can be carried almost the entire way through except where the oyster bars hold forth—and right here let it be said that Chevelier Bay has no equal anywhere for the

quality of oysters found there and the incalculable number of them. These bars overlap, criss-cross and intersect in bewildering quantity, their strange pinnacles and heads plainly visible through the clear water. One of the small boats was filled with them—marvelously flavored oysters, plump and snowy. Too much cannot be said of Chevelier Bay bivalves. If you ever venture into this weird country, you will bear out our statement.

The *Mae* was left under the friendly

tween shore and island: now they were intending up a dim water trail that seemed to end nowhere in particular. Occasionally Mr. King bade them stop, that he might make notations and sketches in his book, for they were now in a portion of the Chevelier property which was to be charted.

They did not return to their new found traveling companions until almost six o'clock. John was wet from head to foot, for he could not resist the temptation to go overboard after those oyster heads. Their prodigious size quite won him to a roast for supper.

"And there is fresh water back behind that mangrove clump," he said, "tomorrow I'm for further exploration and a real fishing trip. Hendry says that we will get tarpon there and black bass."

Indeed, it was "tarpon country" and Mr. King himself looked over the lines upon their return, in preparation for the treat that was to come. There had been so much coming and going during these busy weeks, that they had not gone in seriously for tarpon. And now the opportunity was presented in a super de luxe way.

Hendry was custodian of the fire pot that night. No sportsman should be without one. They supply a flavor and a convenience that is invaluable to the boat-adventurer. The *Mae's* fire pot was a big one—12 inches in diameter and eight inches high. It was lined with fire clay.

The beauty of this handy cooker is its adaptability. You can put it anywhere, above or below deck, on land or on sea.

A moon was shining—a full moon, and Chevelier Bay was looking its prettiest. Still it was, stag-

nantly still, save for the occasional calls of birds in the hammocks—owls, herons, water turkeys and snake-birds. The pot was placed right out on deck and buttonwood chips and branches placed in it. A hot fire was soon crackling merrily. Then on went John's prize oysters—great clumps of them, until they popped and sizzled and sent forth appetizing odors that were irresistible. Never did an oyster roast taste better. It would have been a sacrilege to put any flavoring on them.

(CONTINUED ON PAGE 372)

EX.-CO. OFFICIAL PLEADS GUILTY TO HAVING AIGRETTES

J. G. Truitt, Former County Commissioner, and a Seminole Indian Arrested By Federal Agents

Former County Commissioner J. G. Truitt last evening pleaded guilty to violation of the federal law against having egret plumes in one's possession, after several thousand dollars' worth had been found in his room in the Watson building in a raid by federal officials. Willie Willie, the well-known Seminole Indian, pleaded not guilty to the same charge after about an equal amount of plumes had been found in his room in the Sun Dial apartments.

The raids were conducted late yesterday afternoon by Deputy Louis A. Allen and United States Game Wardens B. J. Pacetti of Ponce Park and P. S. Farnham of Oswego, N. Y., and the plumes taken were valued at \$7,000. Following the hearing before United States Court Commissioner Graham both men put up bail, Truitt furnishing a cash bond of \$300 while Jerry Gallatis and John W. Buck went on the Indian's bond.

Willie Willie first asked for William Burdine, but when informed that Mr. Burdine could not be found, he said, "I take Jerry Gallatis alleesame, think so." He could not understand why the officers dared enter his locked room in his absence.

From the Miami Herald of May 20th. This looks like pretty good evidence that the King party were right in their deductions

shade of the mangroves and John, his father and Hendry, taking the small power boat, went on a reconnoitering expedition. It was a privilege to glide around the tropic shores with mangroves bowing above and floating masses of lily pads nosed to either side. There is a very large mangrove clump at the mouth of the river and a series of smaller ones at frequent intervals, making it a veritable puzzle for the navigator. An eight-pound red mangrove snapper was caught by John, while trolling in this fashion.

Now they were entering a channel, be-

Plumes Cleverly Hidden

The Truitt collection was found in an old suit case, cleverly hung up behind a bureau in his room. It comprised 14 aigrettes, valued at \$150 each, and four roseate spoonbill (pink curlew) plumes, valued at \$100 each. He declared that he did not own the plumes, but finally pleaded guilty when arraigned before the commissioner.

In the Indian's collection were one great white heron plume, valued at over \$500, one wood duck plume, valued at \$300, 17 snowy heron (cross egret) plumes, valued at \$125 each; two small blue herons, plumes valued at \$20 each; one golden crown night heron, plumes valued at \$50, and 10 American egret plumes, values at \$150 each.

Both collections are being displayed in Douglas's window today, and the officials are anxious that Miami women shall see them so that they will be able to recognize the various kinds of aigrettes and co-operate with the government in apprehending store keepers who keep such plumes and women who wear them. Mr. Pacetti said today that he would arrest any woman wearing them, no matter how prominent socially she might be.

Heavy Penalties Provided

The law provides that any person found with an aigrette in his or her possession shall be liable to a fine of \$500 or six months' imprisonment or both.

As is well known, plumes can be found on herons only during the period when they are laying their eggs and rearing their young. Consequently, the killing of one of these birds at this period means that the young will be left to die, or that eggs in the nest will never be hatched. Since these birds are exceedingly rare now, protection must be afforded them or they will become extinct.

Mr. Pacetti recently created quite a stir when he arrested and brought to trial a number of wealthy residents of Leon county and secured their conviction on the charge of killing migratory birds out of season.

The plumage obtained in the raid will likely be either burned or placed in some museum.

THE OLD-TIME RELIABLE "SHARPIE"

HOW TO BUILD AND OPERATE THIS FAMOUS LITTLE BOAT WHICH HAS BROUGHT SO MUCH PLEASURE TO THE CRUISERS ON OUR INLAND WATERWAYS

By P. P. AVERY, M. E.

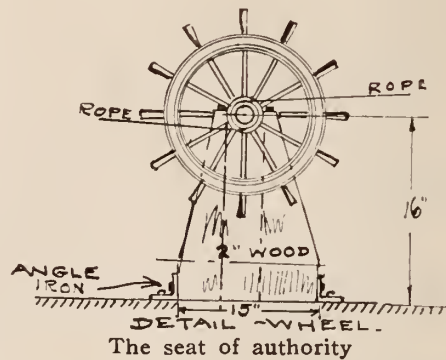
THE old time reliable "Sharpie" is a craft of such speed and seaworthiness that it should be brought back into service. The general and typical construction of such a boat is shown by the drawings and the descriptive specifications following.

The boat is especially adapted for rivers, harbors and sea coasts; for fishing, crabbing, shooting, etc., being used most successfully and efficiently by myself on the Long Island Sound and its inlets from New York to Massachusetts. It has the ability to cut the water, when close hauled, like a shark, leaning on either side with the gunwale awash. If speed is the main object of the sport, an outrigger, adjustable by thumb screws, may be made to run out on either side, and the sportsman sits out over the foaming water and assists the center board in holding her down. Care must be taken of course, in watching for sudden squalls and wind breaks, as at high speed overturning might happen if the sailor is away out on the outrigger when the breeze ceases suddenly, as it is wont to do.

The center-board is likened to an adjustable keel; it may be hauled up to its top position or lowered to the bottom position by a rope which, when fast in the holdfast cleat keeps the board in any position. The center-board is lowered according to the strength of the wind and the close hauling of the two sails. This boat is especially adapted to tacking against the wind, and is in a class by itself for ease of operation.

IN building the boat use the best of well-seasoned, clear lumber, well filled with a good primer coat of best American white lead and linseed oil.

All joints should be carefully coated with asphaltum and caulked with



The seat of authority

oakum so as to make it water-tight.

The fittings may be new or bought second hand and polished up.

Regular long boat or row boat construction is adhered to as to details. The craft is made in sizes from 12 feet in length over all up to 20 feet and over, but the average is about 14 to 17 feet from stem to stern.

After the hull is shaped up and screw holes puttied, the seats should be set in permanently, which stiffens the whole hull, and it is then turned bottom up on

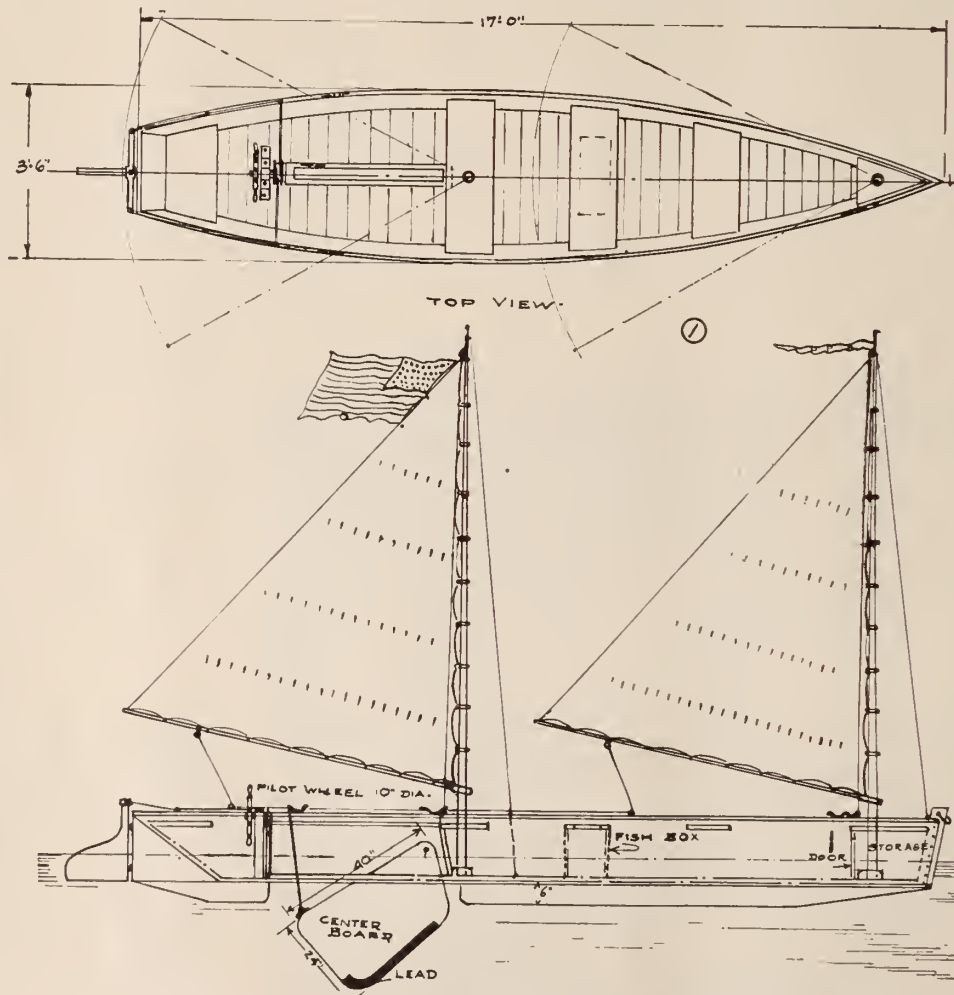
horses and the center board slot is cut in keel and through the floor.

The exact location is determined from the inside and two holes are bored through, so that the exact cutting centers and lines are obtained. Build up the center board house of 1½ in. wood, of even height as the gunwale and carefully fit over inside longitudinal floor runner which is 1½ in. by 6 in. The center board house rests on this. It is also 6 in. wide by 3 feet 8 in. long, inside of which the center board hangs and is raised or lowered according to sailing conditions. The center-board house is held fast by iron corner brackets, two on each side and one at each end.

The center-board is suspended on its axis end by a ¾ in. standard thread bolt, with large washers inside and outside and a cotter-pin hole outside of the nut.

The other end, or rear end, is regulated by a rope and cleat—and the rope is held in bond by a wire wound, galvanized ring through a clamp, securely screwed into the top end, as shown on center-board in cut on opposite page.

To the bottom of the board screw fast a piece of lead, hammered to the shape as shown, or a piece of scrap cast-iron may readily be found in the junk yard and six holes, ¼ inch in diameter drilled and countersunk in it. This should weigh 50 to 100 lbs., according to the length of the boat. Where the bolt passes through the top end of the center-board, the hole after it is bored should be bushed; that is, it should be lined with metal. So take a piece of light gas pipe of a diameter to just fit over the bolt nicely and cut off a piece as long as the thickness of the center-board and drive it in. This makes a durable and proper job.



Details in the construction of this simple, speedy craft. Side section and elevation

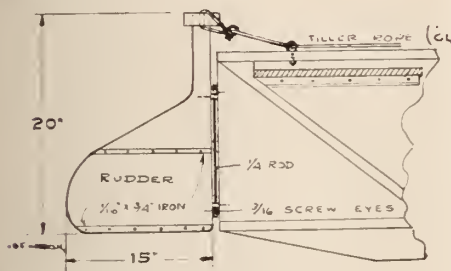
IF the boat is used where the sea is at times choppy and squal-

ly, the center board is a very important feature, and to make this additionally strong make a pair of iron brackets of $\frac{1}{8}$ x $1\frac{1}{2}$ -inch flat iron by 10×10 -inch angle and screw one on each side. These take the strain when the boat is close hauled and center board down, as the pressure of the water against the side of the board endeavors to push the center board house out of a true line unless strongly braced and kept in a perfect vertical position with the floor of the boat.

The seating arrangements may be arranged to suit the builder.

A popular plan is shown on page 336. Take especial care with the setting in of all seats and have them staunch and true as this preserves the rigidity and original outline of the hull and also greatly increases the boat's efficiency. Build the rudder as shown, facing its outer edge with thin band iron and use great care in setting in the hangers to get them perfectly true and in the center.

The tiller piece may be made of flat iron held in place by a draw up bolt over it. Drill the holes in each end $\frac{1}{2}$ in. in diameter. Provide and screw in place several galvanized iron pulleys and through these run the rope to the wheel and fasten it around the drum of the wheel with heavy staples.



The stern and rudder

Make the standard for the wheel of 2 in. yellow pine and set it against center board house and secure it to floor by $\frac{1}{4}$ in. by $1\frac{1}{2}$ in. flat iron brackets and to other convenient points by long, iron clamps so as to make a rigid job.

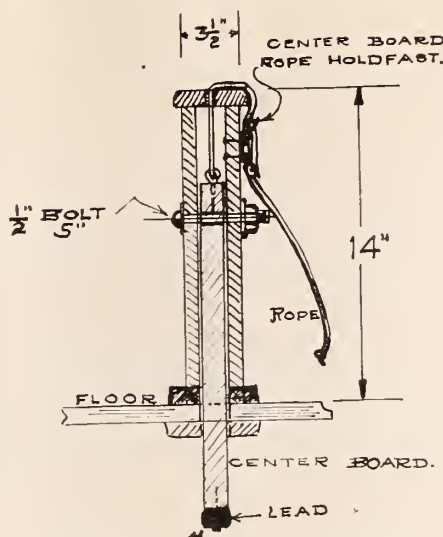
THE wheel may be bought or made up in a carpenter shop, and if the latter the rim should be made of several sections halved and screwed together. The spokes are turned up on the lathe or are made of oak balusters as used in house stairways. The rope drum should be 4 in. to 6 in. in diameter by 4 in. long and held to the standard by flat iron out bearing and $\frac{3}{4}$ in. center bolt through same.

Large iron washers, coated with grease, are set up on each side and make a good stiff wheel and yet ready to the touch of the hand.

The iron washers are bored with a $\frac{3}{16}$ in. drill to an even countersink, that is, do not bore through.

Drill five in each washer, one side only, and rub these full of grease. Assemble them face to face and the lubrication will last for a long time. Provide the two end tiller rope pulleys with adjusters so the slack in the rope is readily taken up.

The adjusters are made by $\frac{3}{16}$ in. bolts 6 in. long with eye ends which



Cross section through center board

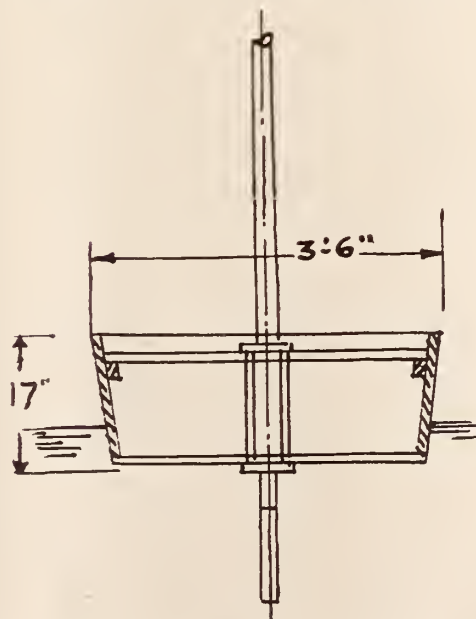
bolt to pulley swivel. The bolt threads then pass through a $\frac{1}{4}$ in. hole of an upset clamp on the gunwale. By the lock nuts on each side the pulley is drawn in or out. One of these is sufficient however.

The fish box is made by a water tight seat compartment with lift up lid, hinged and provided with a screened opening 3 in. by 7 in. in the center. Bore several 1 in. holes in the bottom and cover the entire bottom on inside with wire screen, $\frac{1}{4}$ in. mesh, galvanized, tacked down with copper tacks. Corks are provided to fit in the holes and the box can be baled out in a few minutes. For all day fishing these boxes are ideal, as the water is always fresh and live.

A beautiful finish on a Sharpie can be had by spar-varnishing the interior and painting the exterior white.

The masts should be carefully selected for their straight and knotless grain and carefully sand-papered and scraped between coats of the varnish.

The masts are held in their steps as usually done, but the bracing should be doubled, with iron ring brackets to floor. The booms are also to be carefully se-



A view of the cross section of the hull

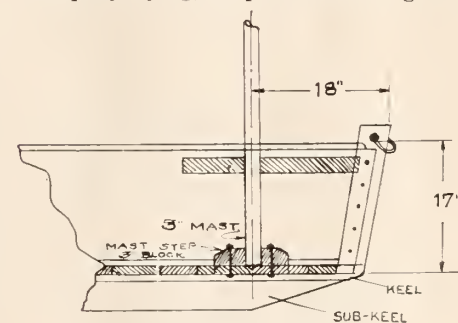
lected and the sails "made on" by a sail maker.

The usual standard rigging is used, such as pulleys, ropes, halyards, braces, etc. The idea is to simplify and decrease the number of parts by making the craft sturdier than general construction.

IF high speed is desired and sport anticipated, it is well to build an outrigger, with which much excitement and nery sailing can be had. The balance of the boat, under these conditions, depends upon the shifting of the man's body on the outrigger.

It consists of a board $1\frac{1}{4}$ in. by 12 in. by 42 in. of spruce, planed smooth, with rounded edges. The sides of the gunwale are fitted with iron channel pieces to receive the board and a loose pin holds it in place so that a man may readily sit out upon it when the boat is under full head and with opposite wale awash.

It is a good plan to cover the board with a seat of corrugated rubber matting, to give a grip on the board. Riding on the outrigger with the sparkling waves dashing directly under you and the spray flying, coupled with the grace-



The bow in detail

ful rise and fall, is a sport not to be soon forgotten.

On the whole you will find the Sharpie to be one of the most practical of boats.

The younger generation of boys will do well to study its adaptability to the many forms of water sports that hold their attention.

The sport you have in building and sailing your own boat can never be equalled by the pleasure of running a boat that you have bought from some other maker.

Like many other things in life the harder we work for them the more we enjoy them. Then the simple construction of the boat lends itself to rough knocking about—so very desirable in outdoor implements of all kinds. With a Sharpie, a full grub box and a pleasant companion the great world of inland waters is yours to explore and to enjoy.

Head up into the bay some bright summer morning when the waves are dancing in the sunlight and a fresh breeze makes the little boat slip easily through the water, toward the little inlet where you know the fish are waiting.

Take her out into the dim dawn of an early November morning with your gunning outfit safely stored below, and you will know why the old reliable Sharpie has held its own for so many years among the host of newer craft that dot the waterways along our coasts.

JAMES ALEXANDER HENSHALL

THE AUTOBIOGRAPHY OF THE APOSTLE OF THE BLACK BASS,
FATHER OF THE GRAYLING AND DEAN OF AMERICAN ANGLERS

THIRD PAPER

JOHNNIE and I, like most boys living in a seaport, were crazy to go to sea. The last word in marine architecture or naval construction of sailing vessels was reached in the *Baltimore Clipper*, the best, fastest and most beautiful sailing ship in the world. Under full sail, with the wind abaft or abeam, with her white wings spread from her huge mainsail to the lofty moonsail or skyscraper, and with every thread drawing, full and free, it was a sight worth going miles to see.

Johnnie and I when admiring an outward bound clipper under a mountain of canvas, from taffrail to truck, always wished or imagined ourselves aboard and bound for Hongkong or Rio.

We often went aboard the vessels in the harbor, and after paying our footing with a plug of tobacco to some old deep-sea sailor, he would take great pride in instructing us in the nomenclature of hull, spars, sails and sheets, so that their names became quite familiar to us. These old salts were very particular to impress us with the fact that there were no ropes aboard a ship but a "rope's end," and would say that the less we had to do with that the better, and that all other ropes were sheets, stays hal-yards, etc.

They also instructed us in nautical terms, and one of them once clinched some of the terms with a good-natured joke, and said that when he wished for a change in his diet of salt horse and duff, he would get ducks or chickens from the hatchway, and as for fresh eggs, the captain made the ship "lay-to" and he got one of them. Telling this to another old salt he said:

"Yes, I have heard that before; Noah used to spring it on the boys in the ark."

This was all very amusing to us and usually it called for an extra plug of tobacco, in which case we were permitted to ascend the shrouds and run over the rigging like so many monkeys.

In regard to our going to sea most of the old salts advised us not to go before the mast, but to enter the Naval Academy at Annapolis and become midshipmen, as in that way we could go aboard a ship over the rail and not through the hawse-hole. Having this in mind, whenever there was a steamboat excursion on Saturdays to Annapolis, Johnnie and I paid our quarter and went aboard. After arriving at Annapolis we spent most of the time in admiring the middies as they strolled about the grounds. We learned that the way to gain admittance to the Academy would be explained to us if we wrote to the Navy Department. Accordingly I wrote to the Secretary of the Navy, and within a few days my father handed me a large official letter and said:

"Have you been in correspondence with the Secretary of the Navy?"

"Yes, sir; I am going to be a mid-

shipman," I said, as bravely as I could. "Oh, you are, eh," he replied, and went away, chuckling to himself.

The letter proved to be a few lines of transmittal, with some printed instructions for admission to the Naval Academy. In compliance with the same I forwarded my name, age, etc., to be enrolled on the waiting list of candidates, probably a hundred or more. But until I reached the age limit of sixteen years there was no vacancy in my Congressional district.

JOHNNIE tied eel skins about his ankles when swimming as a preventive to cramps, but I had no faith in their virtues in this respect. Fishing for eels did not appeal to my proper sense of angling. However, I consented at last to Johnnie's repeated solicitations to go fishing for eels on some moonlight night, to a place where he had once gone with



Fishing in the olden days

his father on a similar expedition. The place was a stream known as Washington Falls, at a point where the Baltimore & Ohio railroad crossed it on a viaduct more than a hundred feet high.

Accordingly we started after supper one moonlit night on a tramp of several miles along the railway. Johnnie carried a tin lantern perforated with holes, which was in common use at that time, while I carried a covered tin bucket as a creel for eels. Our handlines, sinkers and matches were in our pockets.

For bait we had prepared some 'eel-bobs' under the tuition of Johnnie's father. These were made by stringing earthworms on a worsted strand several inches long, and then doubling it into a wad that could be swallowed by an eel. These were fresh-water eels, somewhat smaller, and as Johnnie's father said, of better flavor than those of salt-water.

While on our way the moon became obscured by clouds, and mutterings of thunder were heard in the distance. When we reached the cliff beside the viaduct it was quite dark. There was a narrow

the top to the stream below which I knew very well, having often fished there in daylight for gudgeons.

I thought I could discern the path a foot or two below in the dark, and with the utmost confidence I gave a little jump to reach it—but horrors! I struck the rocks ten or twelve feet below, glanced off and kept striking and glancing until I landed against a tree on the bank of the stream, more scared than hurt. Considerably battered and bruised I pulled myself together and looked up to the summit of the cliff and beheld Johnnie standing with both arms raised above his head, apparently dumfounded, and silhouetted against the gray sky line.

I needlessly shouted to him not to jump, as he had no intention of doing it. Being assured that I was not killed he lighted the lantern and, slowly and cautiously, made his way down the cliff, preferring that method, as he said, to my precipitate way of descending. Years afterward I never crossed the viaduct on the train between Baltimore and Washington without wondering why I was not killed or seriously injured for life, as I got a glimpse of the bold, rocky façade of the acclivity.

We found the bucket and lid which I had dropped in my rapid descent, and proceeded up the stream to an old grist mill. We were to fish in the tail-race of the mill. The thunder increased and rain seemed not far away. We seated ourselves on the wall of the race and began fishing.

Tying a bob on our lines we tossed them into the water and waited for results. It was not long before the bobs were swallowed, and the eels were quickly and cautiously drawn up before they had a chance to disgorge the bunch of worms, for we used no fish-hooks. The eels were then seized and killed before placing them in the bucket.

The way to hold an eel is to encircle its body just below its head with the middle finger, then press it firmly against the other fingers; this is a strangle-hold that it cannot break, no matter how it squirms and wriggles. Then hold the head against the ground, throat downward, and with a sharp-pointed knife blade thrust it through the head just behind the eyes. This effectually kills the slimy creature and puts an end to its contortions.

The air was now becoming quite damp and chilly, an owl was hooting in the gloomy recesses of the old mill, and several bats were circling about our lantern in search of the winged insects that were swarming in its light.

We had taken half a dozen large eels, enough to fill the bucket, and as it began to sprinkle rain, we decided to quit and call the game off and depart for home. It was my first and last fishing for eels at night or at any other time.

AT the beginning of my school vacation in August, when ten years old, I was stricken down with a fever from which I did not recover for two months. It was complicated, with much brain trouble, which the doctor said was contracted by exposure to the sun in fishing, swimming and boating. However that might have been, or whatever the cause, the hair was shaved from my head, and I was cupped and leeches on both temples and behind the ears, several times, and bled in both arms repeatedly, the scars from which I carry to this day. The dozen of lancets of the "cup" were driven through the skin by means of a strong spring, which, to my sensitive and fevered brain was like the blow of a mallet.

This was before the anesthetic properties of ether or chloroform were discovered. I had read that surgical operations were painless under the influence of mesmerism, so I begged the doctor to mesmerize me. In some surprise he turned to my mother and said:

"What does he know about mesmerism?"

She replied: "He reads a great deal."

I was subjected to the old practice of phlebotomy in its fullest sense. The practice was strictly in accordance with its theory, but fortunately for future sufferers the theory was at last found to be wrong, and both theory and practice were abandoned for less barbarous and more enlightened methods.

I use the word barbarous advisedly, for not much more than a century ago cupping, leeching and bleeding were the prerogative and province of barbers whose sign was a basin hung on the doorpost, from which projected the semblance of a human arm, bound with a blood-stained bandage, from which finally evolved the red and white striped barber's pole of the present day.

At the end of nearly two months I was reduced to skin and bone, or as Johnnie said, a living skeleton. I hovered between life and death, and had been given up to die, as the doctor said my case was hopeless. I was incapable of speech and could barely move my hand, but I did not agree with his prognosis, and knew that while there was life there was hope, and felt confident that with my usual luck I would pull through.

On a mild, balmy day at the end of September my couch was placed at a window that opened to the floor, through which a gentle breeze was rustling the curtains and fanning my fevered brow. My senses were very acute, but I could neither open my eyes nor move a muscle. The doctor came into the room, felt my pulse and called for a mirror which he placed at my lips to ascertain from the condensed moisture on the glass if I was breathing. He then turned to my mother and said:

"He is pulseless and breathless," and at the end of a short pause he said: "He is dead," and left the room.

My mother straitened my limbs, crossed my hands on my breast, and, weeping bitterly, went into another room.

I then thought to myself: he is not dead, and he's not going to die; he's going to pull through. Being left alone

I tried hard, oh, so hard, to move a little finger, until I feared that I would burst a blood-vessel in the effort. Then I realized that I did not have blood enough in my veins to burst a soap-bubble. Finally I succeeded in lifting my little finger, and after a while I moved my thumb, and then raised my hand.

Quite exhausted with the effort I desisted for a few minutes. Then I managed to open my eyes and turn my face toward the window. There was a grape arbor running on a level with the window sill and down the back yard. I could see the large clusters of Isabella grapes, which were then quite ripe, and as their fragrant perfume came stealing in through the window I thought if I had but a single grape to press to my fevered lips I would soon be well.

Then I saw some one gathering the purple clusters; it was Johnnie; I tried to call to him, but could not utter a sound. I then tried to sit up, and in the effort I rolled from the couch to the floor. The noise of my fall, slight as it was, brought my mother in haste to



It is not all of fishing to fish

the room. She raised me carefully in her arms and carried me to the open window, overjoyed to realize that I was alive. She chafed my hands and limbs and put in practice the means and expedients required in cases of suspended animation.

The first thing I asked for was water, water, water. I had been allowed but a few sips each day. Laying me on the couch, she brought a pitcher of water and a glass. I seized the pitcher and drank eagerly and copiously. As I became stronger I asked for some grapes. Johnnie brought a bunch that had been rinsed in ice water, and my mother pressed out the delicious pulp and it was divine nectar to my parched and burning lips and throat.

The doctor had been hastily summoned, and when he arrived I was very much revived and stronger. He looked somewhat surprised when I said:

"I don't want any more medicine or any more bloodletting."

He replied: "You will need but little medicine, and you will need every drop of blood in your veins. You have made a wonderful recovery. All you need now is good nursing and nourishment."

"Thank you," I said, "I wish you had thought of that before."

If I had given up hope with the rest of them, I firmly believe that I would have died. It was only my persistence and self-will that prevented the shuffling off of my mortal coil. But as Johnnie expressed it:

"You're a wonder! Drowned in the old quarry hole; smothered in the old oak chest; and then bled to death—three times and out—almost—I think you were born to be hung."

GUDGEONS, as one of our sailor friends informed us, were eye-bolts in the stern-post of a vessel on which the rudder was hung by hooks, called pintles. But the gudgeon I have in mind is a very different affair. In England there is a small fish, a goby, that is known as gudgeon, and a fish of that name is mentioned in ancient Greek literature.

But the Baltimore gudgeon is *suit generis*. The name was applied to the little fish, I think, by the early English settlers of Maryland, on account of its extreme gullibility and free-biting propensities; at all events the name seems to be restricted to the waters near Baltimore.

There are two species, very much alike, though belonging to different genera, and in order to properly identify them I am compelled to use their scientific names, which are *Menidia notata*, the silversides, and *Anchovia brownii*, the anchovy. Both are pretty little fishes, four to six inches long, pale sea-green on the back, and with more or less dotted silvery sides. They are delicious morsels when fried brown, and can be eaten, like sardines, bones and all.

The only dressing required is to rub off the scales in the sand of the shore. In the latter part of April or in May, the gudgeons leave the brackish water estuaries and ascend the fresh water tributaries to spawn. At the time of which I write they appeared in myriads and multitudes each season. Their appearance in the small streams was an occasion of joy and expectancy for the amateur angler. It was said that even the city council adjourned *sine die*, with the advent of the gudgeon, so that the city dads might have their share of the fishing while the brief season lasted, for the spawning period was of short duration, and the silvery hordes returned to the brackish water bays.

The gudgeons were fished for with long, light, natural cane rods, lines of very small caliber, or cotton thread and sewing silk, with quill floats and split-shot sinkers. From two to four very small hooks were mounted on spreaders and baited with small pieces of earthworms. The fish were lifted from the water, one to four at a time, as fast as the hooks could be rebaited.

I have seen hundreds of men, women and children, wherever elbow room could be found, on the banks of the stream near the Relay House, nine miles from Baltimore on the Washington branch of the Baltimore & Ohio railway.

The grown-ups put their fish in suit-

(CONTINUED ON PAGE 380)



CATFISH PHILOSOPHY

THE THIRD INSTALMENT OF A SERIES OF STORIES DEPICTING THE SIMPLE JOY OF FISHING FOR THE HUMBLE CATTIE

By LEONARD HULIT, Associate Editor of FOREST AND STREAM

THE weather was inclement for several days following the mud puppy incident and Mr. Woodhull had seen or heard nothing of Matt. Heavy rains had fallen, making fishing practically impossible in the much swollen creek. The first afternoon that conditions promised fair he walked down to the cottage where the boy resided with his widowed aunt. He did this not solely because he was lonesome, but subconsciously the boy was fast becoming an essential part of his up-building recreation. He had found in him a gem which, like so many another, needed polishing only and a proper setting to become a brilliant.

The cottage and garden were well kept. The aunt was inclined to be talkative after introduction by Matt, who was delighted at the prospect of a long visit from his friend.

"Seem'd ough it would never stop rainin'," he broke in between common-places in the conversation, "'gates is up at both dams at the mills an' the creek's flooded, but its some better to-day. Tomorrow'll be all right at the mill hole—the upper one, an'—"

"Lands sake," observed the aunt, "if Matt could learn other things as he does fish and where to go for them it would be more like, but," she added aside, "he's a good boy in the main and a sight of help and company for me. He's turned thirteen now and when school is over and his garden work and chores are done, I don't mind. He brings home a lot of fish and sometimes more than we can use and they help out with the table. And when one takes a thought on the different ways they can be cooked it helps out all the more."

"There's perch in the gate hole an' plenty of 'em," said Matt, "an' some big ones too but I don't know if they'll bite when the water's riled up. They don't often but we can get some grasshoppers; that will sometimes tempt 'em."

That the boy was well provided with poles was evidenced by the stock stored in the rafters of the woodshed. Many of which had never as yet seen service, but all showed the same care in selection and trimming and had the initials M.B. cut in the butt of each. Each had its related history as to which particular swamp had produced it, and what it was especially designed for.

No collection of split bamboos in the den of the man of wealth were ever displayed with more pride. But these were cheap; the swamp and woodlands produced them without cost.

Lines and hooks were, however, a more serious matter. They cost money; of

which the lad had but little. The aunt while quite indulgent could spare but little from her meagre income except for his clothing. Even part of the small earnings of the lad by doing an occasional errand or chore for a neighbor must go into the general fund.

One privilege however he had; a neighbor had given him a steel trap and the past two winters he had taken a few muskrats and from the sale of the skins, which brought but a few pennies each, he had purchased such lines and hooks as he had.

That money his aunt had promised him should be his to use as he wished. Matt was as yet but little versed in the skill of the trapper, but later in life when the writer knew him well he was a past master of the art.

THE following afternoon the two met on the bridge and this time went up stream instead of down as formerly. This led them to the mill which, as was the custom in those days, embraced both sawmill and flour grist mill, as it was then termed.

Both being driven by the old type over-shot wheel the action of which, as well as the water rushing through the gates from the pond above, created a large and deep basin of water which was always a favorite place for fishing for both men and boys.

The lad had a stock of prepared worms. The man had brought along a piece of beef as well as a small slice of salt pork, and as they passed through the meadow had succeeded in getting some grasshoppers which were put in a small tin box. The box had some nail holes punched through the lid to "give 'em air," as he said.

Here fishing was easy. The banks came well down to the water's edge and shelved off rapidly so that deep water was within easy reach. It was the work



A fine assortment of tempting lures

of but a short while for the lad to find the parts of two broken boxes, and they were soon made into comfortable seats after which two forked branches were pushed down

into the soft earth with forked ends up to receive the poles as rests.

"Don't seem like it's much use to work for anythin' but cattles yet," remarked Matt, scrutinizing the water closely. "It's too muddy an' perch don't seem to eat much when it's like that, wonder why, can't they see? It's funny," he rambled on when they were seated, "how men will, an' I watched 'em an' seen 'em do it, string a worm solid through on a thick hook, sometimes breakin' 'em all up, when if they'd on'y loop 'em on two or three times it's better.

"One man said the fish could see the hook an' wouldn't bite, as if a fish thinks a thing out like that, 'sides don't I take 'em all the time that way and more of 'em too? They's some big pike in here an' more above the dam an' some day we'll give 'em a go. Mr. Silver's got a boat an' I can have it any time if I give him some fish, oars is in the mill. He won't let me have it with other boys, says they knock it about too much, 'sides he says two boys are one too many to be together anytime."

Matt had brought along his two longest poles as the basin was wide and it gave them more chance for getting out to different points. Mr. Woodhull had used pork for bait, cutting a long slim slice and put it well up on the hook. The boy using his favorite worms, remarked as Mr. Woodhull put on the pork, "I've heard they'd bite it an' I know they'll eat pieces of chicken; seen a man use it once, but what's the use when the's plenty of worms? Salt pork, there don't seem to be much about that they'd like." At this point the man's cork went down quickly and as he struck the pole bent sharply and the line cut the water at an angle, now this way, now that. The tip of the pole finally touching the water, the lad grew excited. "Gee," he said, "you've got a big he eel; but he scoots aroun' pretty fast for that. Bet it's a pike an' a buster." Slowly the fish was brought around to the bank and when finally grassed it proved to be a catfish of fully three pounds in weight. No matter how in earnest or how much the boy became excited over some unexpected catch, he was never boisterous. It is true he had yelled when the mud-puppy was sent close over his head but as he afterward said: "'Twas ugly enough to scare a blind sawbuck." Matt was elated over the big catfish. "I told you the big ones was here," he said. "Sometimes you get

'em below but not general," he added.

"Notice anything 'bout a catfish when you bring it to the top of the water different from most others?" he asked. As he strung the fish on a stout string with a cross stick at the end so as to retain the catch the man said he knew of no peculiarity in that respect. "Well, keep your eye on the next one, an' every one, an' you'll see they allus come to the top belly up an' fight at the top that way, if they get a chance an' are not hossed right out like some do with 'em."

"Say," he continued, "some men fish here with regular bean poles an' slat 'em out." Mr. Woodhull took three more on his pork bait before the boy got a bite, although none as large as the first one, which set up a queery with the lad.

"Wonder if it's 'cause the water's thick an' the pork shows white an' they see it better?" he asked. "Shouldn't be s'prised, but 'nen what do they do when the's no pork nor anythin' white t'eat, have to get it somehow. Guess again, Matt," he said as if to himself and then became thoughtful. He sat quite a while in deep thought then began: "I'd fish a lot nights on'y aunt Mary aint willin' I should, says I might get into some hole, or place, or somethin' happen. Catties bite a'most as well nights as day time, so do eels—better some times. I was thinkin'," he continued, "'bout when I could get some money and buy a lot of hooks an' a big line. I could rig up a set line for the pools an' here. Set 'em over night 'nen take 'em up first thing in the mornin'. Bet I could get a lot an' when I skin 'em they sell good. Might help aunt Mary some. Say, I don't see no fun in it. I'd sooner take one on a pole than a string that way. An' say," he added suddenly, "how do you skin a catty?" His friend admitted he was not good at it, in fact the people where he boarded did that and were glad to have the fish. "Why," said the boy "it's just as easy," with a strong emphasis on the last word. "I'll show you if I get one at my hook."

Throwing out a fair sized one, he at once severed the spinal column as described, with the point of his knife, which at once rendered it helpless, and finding a piece of board, laid the fish on it. Putting his left hand on the head he said: "Now look, see, I start in behind the fin on the back, cut clean through, 'nen come on clean up to the place where I cut his backbone, 'nen go right down with the knife to the skin on his throat, 'nen hold the knife there solid an' pull hard. See, on the head, an' off comes the skin an' his insides come out at the same time. It's easy. Gee, but a catty looks skimpy when his head an' jacket's off. Aunt Mary's got a way of cookin' fish what is good as ever. When they're cleaned she puts them in salt and water, sometimes over night and then takes 'em out and wipes 'em dry and puts some fat in the fryer and lets it get good an' hot. 'Nen she puts the fish in, after putting

some crumbs on. Sometimes she sprinkles crackers rolled fine an' when eggs are plenty she put an egg over 'em. Gee, but I most taste 'em now."

DURING the afternoon a buggy wagon drew into the mill yard and a man, after going into the mill, came down to where the two were fishing, carrying a cloth case and a package and began talking to Mr. Woodhull. He was very agreeable in manner and after seeing the fish, which were on hand, asked if there was any objection on their part about his fishing near them.

He said the miller had told him he was welcome to fish where he wished but did not want to intrude near them if they felt he should not do so. Both were glad to have a companion, particularly as he promised by his manner to be most sociable. He produced from its cover a



Digging the old reliable bait, tested by boys of many generations

jointed bamboo rod which, from its appearance, had seen much use, though still in perfect order. A free running reel of medium size and good make was the next produced.

This was a revelation to Matt who had seen nothing but the click reel as used by an occasional trout fisherman he had met. As he watched the first casts made and noticed how easy it seemed for the stranger to place his tackle just where he desired, his wonder knew no bounds. Matt found a comfortable seat for him and they soon were friends. The boy eagerly asking questions which were readily answered.

Mr. Woodhull was an equally interested party. The man had purchased a property near by and heard of the fishing in the chain of ponds and creek running from them and had taken this

opportunity to give it a trial. He was very glad to meet some one who knew the different points and the kinds of fish to be taken.

He had travelled extensively and had caught fish in most of the states, particularly the middle and southern ones, and was fairly well acquainted with many salt water varieties.

The simple, earnest nature of the lad charmed him, and the delicate appearance of Mr. Woodhull drew forth his sympathy, but he carefully refrained from comment. Matt was waiting eagerly to see a fish take the stranger's hook. He was anxious to see how, with that comparatively short rod and long line out, a fish might be hooked, as he had cast to the farther side of the basin near a patch of lily pads growing near the opposite bank.

SOON the painted top float went down and the man, as the quick eye of the lad noted, reeled in until the line came fairly taut, then struck firmly but not hard and the bending pliant rod gave mute testimony that a fish was hooked.

The long line gave the fish full play and it ran the entire length of the basin, then doubled and back, all the time being worked nearer by the shortening line, until it was drawn to the bank, then lifted out and laid on the grass. It was a nice exhibition of the fisherman's skill and the boy was meditative. He was quick to offer advice as to the safe method of unhooking the fish, but noticed with pride that his method was well known to their friend.

"Catfish," he began, as he ran out his long cast again, "are among the most interesting of our common fishes.

"The family is a large one and where any are found they are usually plentiful, as they multiply rapidly. They will eat almost any kind of meat as well as bits of fish.

"In running streams where the water is clear they take the minnow readily and are harder fighters. In such waters they are usually white on the under side.

They usually have more pointed heads but," he added, "I have taken both kinds in muddy waters and I think, as do most people, that there are two distinct kinds of the common catfish.

"They, too, have the peculiar habit of carrying in their mouths and gill openings their eggs just before they hatch out, and the mother fish may be seen with the little wrigglers all about her head, looking like a small cloud in the water."

"Gee," said the now thoroughly interested boy, "I thought they somehow set on 'em like a hen." The man laughed at this whimsical turn and continued: "I have seen them very large in the Mississippi river down below where the Ohio empties into it, much over one hundred pounds in weight." Matt straightened up and looked at Mr. Woodhull as

(CONTINUED ON PAGE 378)

THE ELEMENTS OF TROUT FISHING

RULES IN TROUT FISHING AMOUNT TO LITTLE. ONE HOUR OF ACTUAL PRACTICE ON A GOOD STREAM WILL TEACH YOU MORE THAN A HUNDRED BOOKS

By ROBERT PAGE LINCOLN

A GREAT deal of good commonsense has been written about trout and trout fishing. Equally as much has been written that is obscure but which is sufficiently fanatical to cause conjecture and misapprehension among the ranks of the angling element. In the argument for or against the dry fly, and for or against the so-called wet fly, each side, by stating and restating its conclusions, has done its share to make the subject more dense than ever.

The sum total of this matter is that the dry fly is good under some conditions, and so is the wet fly. If the chance is open for good dry fly fishing, one is foolish not to try this method out; but if these conditions do not obtain, there is always recourse to that old stand-by, the wet fly, which has never proved false.

The air of density that has clung around dry fly fishing like an impentrationable mist, obscured in long Halfordian words and phrases, technical and otherwise, has usually frightened away the well meaning angler, who may have never tried the method, believing it something connected with the laws of the cosmic phenomena. As a matter of fact (leaving the ponderous phrases out) dry fly fishing is readily learned by anyone who has angling at heart, who is patient and painstaking, and who knows the general rules governing the casting of the fly when, where, and what to use.

As for the dense scientific speculations, the maps and the diagrams that have gone with the process, they all seem aimed chiefly to create prestige for the writer. For, as Charles Hallock has said, the more dense you become the higher your standing among the angling fraternity.

The opportunities and conditions obtaining for first-class dry-fly fishing in this country are few and far between, since our streams are mostly of a rough and rugged nature and especially adapted to the use of the wet fly. This does not go to say that there are not places on any stream where placid water is found, and where the dry fly can really be fished dry, or floating. (When the dry fly submerges, it is no longer a dry fly, but a wet fly.) By all means try out the

dry fly and learn the especial art of casting it. But remember that two-thirds of the time the wet fly is the fly to use.

In the matter of inventiveness in fly making we have progressed very slowly, for we still cling to the old traditional forms, accepting feather dusters as an artificial presentation of the trout's natural food. The average fly is not by the widest degree of reasoning anything like the trout's food. And while some trout will, in a spirit of adventure, try anything (they often rise to leaves, flower petals and bits of sticks) it could hardly be said that they imagined such flies to be food. I have been collaborating with Doctor Harry Gove, of New Brunswick, for over a year and a half in the production of a true lifelike artificial fly.

I think that this has been very successful and the Doctor says that it is the best that has ever been put out. Here the form of the true fly is preserved, colors, and all, and the wings are not of feathers, but a special, ingeniously constructed material that makes for transparency. This production we have finished was first started by Doctor Gove and the immortal angling writer, the late John Harrington Keene.

Mr. Keene and my friend the Doctor were lifelong companions. I used this fly last summer along the Brule, in Wisconsin, and had exceptionally good luck with it. For our mutual pleasure we are constructing other flies and I have no doubt but that some great forward steps will

be made. When complete our findings will be given to the public.

A GREAT number of anglers will have nothing to do with fishing early in the spring, when the season opens. In some places the fishing lawfully opens on the first of April, in other places later. A stock term for use in the magazines and books is that no true, sportsmanlike and self-respecting angler will be caught taking trout in the spring with common worms and minnows, and other live bait along this line. However, I have never yet met an angler who would not use live bait, especially worms, when a few trout were desired and a few pleasant days attained.

It is so hard to keep away from the streams at the opening of the season that one wants to go out to wet his line if nothing else. And as it has been said time and again, there is nothing that affords so much happiness as fishing the streams when the ice has gone out.

As a matter of fact the live bait system is the only one that will bring success in the first part of the season. Only if the fly is sunken very deep, and played in clear water, will a catch be registered on the fly from the 15th of April to the middle of May. From then on the fly-fishing is particularly good.

In some localities, I must admit the fly fishing begins to get good much earlier in the month of May than the 15th. But earlier in the spring the fish are sluggish. They hug the bottom or their deep places, and feed on what comes down with the waters; if you were

to cut open a trout's stomach at this time you would find in it many sticks, pointing to the fact that it devours the case-flies, house and all.

The average comment, by and large, on bait fishing for trout is usually the same. Every article follows a prescribed, time-honored order, and it is indeed hopeless to find anything out of the set plan. In an article I wrote a year ago I aroused much interest and comment by the "swimming a worm" method I spoke of, for use in trout fishing, especially in the spring. This method by the way is a relief from the gob of worm system, ordinarily



Looking over the battlefield before making an assault on the wary trout



Gently casting a fly on the mirror surface of some lake which nestles deep in the heart of the snow-tipped mountain ranges, where trout have never learned the artful ways of man

used in bait fishing, which is a matter of threading on five or six worms on a large hook and sinking it in a deep hole where the trout are, by means of buckshot sinkers.

The method I speak of is not only sportsmanlike, but it follows a plan whereby care must be used, and not a little bit of ingenuity. It is merely this: To the end of your leader you attach a number 6 or 8 hook, suit yourself. One inch back from this a second hook is attached. The first hook is fastened to the worm, and the second hook is fastened securely further back on its body. When this worm is played in the water it is very deceiving, for it is absolutely natural in position only it has hooks in it. Start this at the head of a pool and by giving it line it will sink sufficiently.

A good way is to start it at the off-side of a big boulder, at a pool where the water is deadened. Thus, coming down with the current, it looks natural enough and if seen, rest assured that the trout will take it ten times sooner than the ridiculous gob of worms and the buckshot.

If the water is very roiled, of course you have to add sinkers in the shape of BB-shot, split. Two or three of these are sufficient. You will find that your biggest rainbows, brown trout and speckled trout are caught in the pools, below big boulders. If the stream is sandy there usually is a reef of sand by a

boulder and some dead water just beyond.

Aim for the dead water and trail your worm toward the edge of the swift water. The trout lie up close to the boulder and along the sides of the reefs. This has been carefully studied and made sure of.

IN late years the use of tiny spinners has come into great prominence. In my capacity as angling editor on two magazines, in my newspaper writings, and otherwise, I am often asked what I think of spinners for trout fishing. I have to report that spinners are not only an ingenious form, but they are a deadly lure at the same time. Often in the spring I use them. The reason? This: when the water is murky the trout may miss a lure in the water. Therefore, there is needed an additional attraction to it. Here spinners come in for attention.

These are generally very tiny, and come in the single, also in the tandem, or double-spinner form, and are oval in shape. There is another form where the spinner is single, but longer, which twirls well in the water. I use the nickled ones mostly; the rays shoot out from these spinners whether there is sun or not. They reach the eyes of the trout and they rise to it when the worm on the hook is snapped. I am of the belief that the trout think this twirling spoonlet is something in the shape of a disabled minnow and their curiosity is aroused.

Fish a pool well with these spinners and try to get them down fairly deep. Often you will get your largest trout on these. The double spinner is very attractive and deadly. I use both forms.

It is also a point to make note of that artificial flies can be used in collaboration with these spinners. One style is in the interchangeable form whereby you can take off one fly and put on another, as your fancy desires. For this reason get the interchangeable form. The unchangeable form has one fly attached to it, stationary, and cannot be taken off.

I have not had much results using the half of a minnow hooked to a line, which is weighed down with sinkers and allowed to drift downstream, with the current, one hundred feet or more. I generally cut a strip from the glittering belly of a shiner and hook it on, and play it in the pools off of boulders, and in likely looking pockets by obstructions; also at the base of rapids. I generally get a morning breakfast at my shelter tent by this method. I use exquisite care though and I don't go about it as though my life depended upon it. A thin strip of pork rind, two and one-half inches long, by one-half wide does just as well as ever for trout. In fact I may say I have gotten better results with the thin shaving of pork rind.

When played in the water a while it gets pure white. If thin, the water will

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FOREST AND STREAM

FORTY-EIGHTH YEAR



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THE OBJECT OF THIS JOURNAL WILL BE TO studiously promote a healthful interest in outdoor recreation, and a refined taste for natural objects.
 August 14, 1873.

THE CASE OF THE QUAIL

WHAT has become of the quail, or bob-white? It was a common occurrence last winter to hear farmers and sportsmen ask this question. In recent months they have seen all too little of this once common bird; they have heard all too infrequently the familiar whistling call. It is an actual fact that in some places, where at one time these birds were plentiful, they are now but rarely found. Such is the case throughout many sections of the northern and middle-Atlantic states. In the opinion of several prominent authorities, the bob-white stands in danger of extinction.

What has become of them? Two forces have been at work against them. Cold, merciless winters—sometimes several in succession—have wrought terrible havoc among their ranks, and reduced their numbers to an unbelievable extent. Edward Howe Forbush, state ornithologist of Massachusetts, estimates that during one severe season from 90 to 95 out of every 100 quail in that state died of starvation. Local farmers tell us that in numerous places last winter (1918) many a covey perished miserably of hunger and exposure. But nature, left alone, would not destroy them. It has remained for thoughtless and unscrupulous hunters to complete the damage. We do not refer to the great majority of true sportsmen, who are among the birds' best friends: we refer to men who shoot their game regardlessly, whether it is scarce or plentiful, and take the limit that a lenient law allows. If these two forces, the game glutters in particular, are permitted to continue their onslaught unchecked, it is not to be doubted that in the course of time the bob-white will disappear entirely from our fields.

How great a loss would result from the extermination of this bird can be judged from the following testimonial as to its present economic value; for it is with the economic value that we are chiefly concerned. Ernest Harold Baynes, noted writer and lecturer on nature subjects, says:

"Quail and grouse are valuable destroyers of insects and weed seeds. The former, at least, are more valuable alive than dead. They are wonderful destroyers of potato bugs; and if encouraged to nest in the fields and fence corners, no Paris green need be used on the potato crop. On locusts they work just as well. Professor Aughey found in the stomachs of 21 quail 539 of these insects, an average of 25 apiece; and that only part of the day's work. These birds eat also large numbers of chinch bugs, cotton worms, cotton boll weevils, cucumber beetles, May beetles, leaf beetles, clover beetles, corn hill bugs, wire worms, cutworms, ants, flies, and many other insect pests. And being birds of good size, they require large quantities of such food. As destroyers of weed seeds they rank as high, if not higher. Forbush states that they eat the seeds of over 60 different kinds of weeds. The same authority tells us that as many as 200 or 300 seeds of smartweed, 500 of red sorrel, 700 of three-seeded mercury, and 1,000 ragweed have been eaten at a single meal. Dr. Judd gives even stronger testimony in favor of these birds, when he tells us that 5,000 seeds of fox tail and 10,000 of pigweed have been found in a single bird. He estimates that from June 1 to August 1, in the two states of Virginia and North Carolina alone, bob-whites eat 1341 tons of weed seeds and 340 tons of insects."

"When to all this," concludes Mr. Baynes, "is added the aesthetic value of this gentle bird whose cheery voice thrills all to whom it is familiar, we see that to kill a quail and serve it on toast is to realize but a very small part of what it is really worth."

It is plainly of vital importance to save this bird; it is equally plain that steps should soon be taken to save it, in this part of the country at least. Farmer and sportsman should unite in taking the measures necessary for its preservation, the one on account of its economic, the other on account of its "table" value.

And what should those measures be? First of all, the bob-white should be given adequate legal protection. Bag limits should be reduced, and the season in many instances closed indefinitely. A few years of absolute protection throughout certain counties would undoubtedly go far toward replenishing our decreasing quail supply. Then, in the second place, food and shelter should be provided during severe cold spells. An empty barn floor or deserted granary may prove to be a haven where many a bird can weather a stormy winter in safety. Mere legal protection is of no avail against the frost and blizzard. Our care for this bird must be active as well as passive.

THE FERRET AND THE RABBIT

THE ferret is a descendant of the wild pole-cat. He interbreeds with skunks, and lives in somewhat the same way.

The rabbit is a valuable game animal. Because of the disappearance of forests, he bids fair to be the only game animal for the hunting of the ordinary man. The rabbit, according to the latest findings of the American Game Protective and Propagation Association, does little harm to crops, and no harm to trees. He should be preserved for the sport of the man who cannot go to the big game districts of this country.

Hunting rabbits with a ferret is exactly the same as hunting deer with dogs. Neither deer or rabbit

have a sporting chance. Either method is simply a method of slaughter. Both are ways of procuring meat without regard to sport or sportsmanship. Hunting deer with dogs has been prohibited throughout the United States; hunting rabbits with ferrets is gradually being done away with.

The ferret is an importation from Germany. It is used largely by German-speaking people. The ferret attacks from underground, like a submarine. He torpedoes the rabbit out of its hole to be an easy mark for the meat-seeking hunter. Unless the ferret is muzzled it will kill the rabbit in its hole and stay there until it has sucked out his blood. If we wish to kill off the rabbit, by all means let us introduce the ferret. If we wish to preserve the rabbit as a game animal there must be no hunting with ferrets.

It is an American characteristic to give everything and everybody a fair chance. For that reason we have abolished the shooting of song-birds, jacking deer, hunting deer with dogs, pigeon shooting, and the killing of any sort of game during the breeding season. Why, then, should we permit the un-sportsmanlike and un-American practice of hunting rabbits with ferrets?

THE HUNTER WHO SMILES

YOU'VE all met him—the hunter who smiles. Also, we take it, every real lover of happy hunting grounds has hit the quiet trail with the hunter who does not smile, the fisherman who fishes with a grouch, the sportsman who goes to the merry wild-wood as if he were going to the dentist's chair, or making an attack through barbed wire entanglements.

There comes to memory now two pictures, two days out of many a happy day with the rod and gun in the wilds. The first was a quiet day when the oak trees were red as burnished copper against the blue skies; when the maples were crimson and golden; with the evergreens making a picture fit for the background of the glory trails of paradise. And the game was afoot and awing; the dogs roading, and the promise of a red letter day all but fulfilled. But, my comrade of the trail cursed the dogs, grouched about the poor quality of shells. He objected to this and he grumbled at that. . . . Oh, yes, we did get the full bag, but we brought it home as though it were a bag of rattlesnakes instead of a treasure trove of the happy trail.

And we call to mind another day. A day not half so fair in promise. The scent did not "lay." There were false points. There were abominable misses. But with it all there was real comradeship on the trail. We shot more that day than a man shoots with a gun. We got more game than a man puts in his bag. And at that, with all the difficulties, there was by no means a lean catch. We had pretty nearly our limit of the feathered beauties. But the best of it all was the comradeship of the trail. For I was with a real sportsman, a shooter who smiles. At noon we built our hunter's fire in the rocks, and warmed our shack; we took time to smoke the calumet; we opened our eyes to the beauty of the forest and the streams. And when the full moon rose on the home trail, we came to the fireside, tired, but happy. It was a red letter day, a day you remember in the years to come.

For, after all, what is this hunting and fishing game but a big bit of the bigger game of life? And the real sportsman, the shooter who smiles, is not

playing the game merely for the prize. He's playing the game for the fun of it. Chin up, and a twinkle in his eye when the trail is hard, back straight and a gleam of grim joy in his eye when the shooting is poor, or the fishing bad. And when the long trail is over, and the sky golden and red with the setting sun, he smiles again. For life has been to him the great game. He has lived by the side of the trail, not merely trampled over it. And always, in grim or gray days, when the game was afoot or when the game lay close and was gone, he was the shooter who smiles: the man you and I love to have for running mate on the trail. The real sportsman, gentleman and soldier at heart, brave to the soul of him—the man's size man—the hunter who smiles.

NEW YORK STEPS BACKWARD

THE passage by the New York Legislature of a bill to repeal the buck law and the approval of that bill by the Governor is a distinct setback to game protection in the state and thus a public misfortune.

From the old days when, after years of struggle, the practice was forbidden of hounding deer and killing them in the water, up to the present time, there has been constant improvement in the deer situation in the Adirondacks and a fairly steady gain in their numbers. Never perhaps were so many deer killed in that region as last year when the numbers secured by hunting were not less than 15,000. Last year more deer were killed in New York than in any other state in the union. To one not very large town 12,000 deer hides were sent to be tanned, and practically all these were killed by local and professional hunters. Those secured by outside sportsmen were not disposed of to the tanners.

It is not to be supposed that Governor Smith himself knows anything about deer or deer habits, nor about the principles of farming, yet statements must have been submitted to him showing that the farmer who breeds poultry or domestic live stock, does not indiscriminately kill his producing females, but only his surplus males. Statistics as to the relative frequency of accidents when the hunter merely shoots at something moving, or is obliged to be certain as to the character of his mark must have been presented to him.

The newspapers report the Governor to have said that he signed this bill in order that a test of the law might be had. It will be an expensive test, not so much perhaps in the loss to the state of its breeding stock of deer—though that loss will be serious and felt for years to come—as in the loss of human lives. These lives will be sacrificed to the desire of certain Adirondack hunters for freer deer killing and to Governor Smith's lack of knowledge in this particular matter. It is a pity that he did not know enough about it to distinguish the expert sportsman from the selfish hunter, or statements that were true from those that were false.

MIGRATORY BIRD TREATY UPHELD

JUST as this number of FOREST AND STREAM was going to press word was received that Judge Trieber, of Arkansas, has upheld the constitutionality of the Migratory Bird Treaty Act. This is a great step forward and one that FOREST AND STREAM readers will be especially glad to learn of as it was largely due to the efforts of this magazine that interest in this movement has been kept alive.



DANGEROUS SHARKS OF THE COAST

NOTES ON THE WHITE SHARK, TIGER SHARK AND HAMMERHEAD—THREE IMPORTANT SPECIES WHICH RANGE ALONG THE COAST AND ARE CREDITED WITH ATTACKING MAN

THIS is the shark season along the northeastern coast of the United States. In July, as a rule, the vanguard of a great shark migration, which continues until September or later, passes along our shores, and several species come into shallow waters for the purpose of bearing their young. Ground sharks (genus *carcharhinus*) are particularly abundant in such enclosed waters as Great South Bay, Long Island, but there should be nothing alarming in this statement for such sharks as these, even though they attain considerable size, have never been known to molest human beings.

In spite of the horrifying deaths from shark bite near New York in 1916, the likelihood of such incidents occurring anywhere north of Cape Hatteras is still extremely remote. A careful study of the shark situation made in 1916 by Mr. J. T. Nichols, of the American Museum of Natural History, and Mr. R. C. Murphy, of the Brooklyn Museum (*Brooklyn Museum Quarterly*, October, 1916), brought out evidence to show that a similar attack had not occurred since 1805, or for more than a hundred years. The investigation showed, moreover, that the deaths of 1916 had very probably been caused by a single young man-eater shark which was captured in New York Bay by Mr. Michael Schliesser, on July 14, 1916. It is rather ironical that this particular shark received very little newspaper notoriety, whereas every harmless ground and sand shark taken anywhere near New York during the whole summer figured in the press as a "man-eating monster" and had its photograph published for a rogues gallery.

The great development in the industrial utilization of sharks for leather, food, oil, and fertilizer, has benefited the cause of science in leading to intensive studies of these fishes. No investigator has had more experience in capturing and handling the larger species in the field than Dr. Russell J. Coles of Danville, Va., who publishes in the current number of *Copeia*, the journal of the American Society of Ichthy-

THE *Natural History Department* has been for nearly half a century a clearing-house for information of interest to all. Our readers are invited to send any questions that come under the head of this department to Robert Cushman Murphy, in care of FOREST AND STREAM. Mr. Murphy, who is Curator of the Department of Natural Science in the Brooklyn Museum, will answer through these columns.—[EDITORS.]

ologists and Herpetologists, some very interesting notes on the three most dangerous sharks found along the Atlantic coast. Dr. Coles is a famous hunter of the big game of the sea, and will be remembered particularly as the host and preceptor of Colonel Theodore Roosevelt on the the successful devilfish hunt in the Gulf of Mexico in the spring of 1917. A portion of his original notes on the white shark, tiger shark, and hammerhead, follows:

"In May, June and July, 1918, at Cape Lookout, North Carolina, I handled large numbers of sharks of many kinds for leather, food, oil and fertilizer, having established a shark-fishing station at that point now controlled by the Ocean Leather Company of New York, with which I am associated. The work was so intensive that it was impossible to make the scientific study of the material that I would have wished. It is perhaps true that sharks are well known in inverse ratio to their size, and my observations on those three species which attain the greatest dimensions are here given:

WHITE SHARK OR MAN-EATER
 "THIS species is so rare along the Atlantic Coast that when I captured a young specimen 6 ft. 2 in. in total length at Cape Lookout in May I at once made careful measurements of it. It was a male. . . . Shortly thereafter, about May 20th, I took a young female of the same species, and made measurements also of this specimen. . . . In color the flesh was distinct rich, light pink salmon (I have never seen the flesh of any other shark so colored) except that extending along in the pink flesh on each side of the vertebral column, from skull to just above vent, there was an almost round strip of nearly black flesh. Both pink and black flesh were eaten and proved excellent. Usually the flesh of sharks is almost free of oil, but that of this fish was rich in oil, and its liver the richest in oil of any that I have ever seen. It was the very finest shark, or, in fact, fish of any kind that I have ever eaten, its flavor being quite similar to a big, fat white shad. I made an entire meal of man-eater shark, eating nearly two pounds for dinner.

"A day later, the morning catch of 14 sharks included two more young man-eaters, both females, one 7 ft. 7 in. long, and one 7 ft. 3 in. long, and I made all measurements and observations to check and confirm absolutely my notes regarding the one taken on the previous day.

"At the very time when the second young man-eater was captured, fishermen claim to have seen a very large shark, with similar lamnoid tail, as long as their 25-ft. launch, entangled in a nearby net. It fought very violently and they cut it loose. I did not give their report entire credence, allowing for possible exaggeration, until on June 28 I found a large, white shark in a dying condition in one of the nets, which may well have been the same individual. Unfortunately it escaped in its death-struggle.

"My carefully noted observations justify the following claim of dimensions for it: length, 22 ft.; head, larger than 50-gallon barrel; mouth, 3 feet wide; circumfer-



Photograph of a young example of Tiger Shark harpooned by Dr. Russell J. Coles, of Danville, Virginia. The picture shows the spots or stripes which give this formidable fish its name.

ence at arm-pit of pectoral 18 ft.; length of pectoral 6 feet; width of pectoral, 3½ feet; dorsal, not seen; width at caudal notch, origin of tail, 20 inches; width of tail, 7 feet; weight, over 2 tons.

"I consider it highly probable that this large shark was the mother of the young ones taken, and that she had given birth to them near Cape Lookout in May. These are points which make the presence of this species here still more interesting.

"The white shark is a more general feeder than the hammerhead, but subsists largely upon fishes of its own catch, and in four small examples, which I have recently examined, the only recognizable material contained in their stomachs was *Cynocion regalis* (weakfish), and *menticirrhus americanus* (whiting). As they reach greater age they show a disposition to specialize on other food, which is often sea turtles. In my opinion few white sharks ever attack man or look on him as food, but a white shark having once done so by chance, that individual immediately becomes very dangerous.

"I hope I will be pardoned for introducing into a scientific paper of this nature my first two adventures with the white shark. In 1903, in the Bight of Cape Lookout, North Carolina, I was out in a very small skiff harpooning turtles, and armed with rifle light harpoon, and heavy knife, when an 18-ft. shark, easily recognizable as this species, charged, halting only when in contact with my skiff, where, with its large staring eyes watching my every move, it lay for some seconds almost motionless with part of its back exposed above the surface, while I crouched with finger on the trigger of the high-powered rifle, aimed in front of the first dorsal fin. The shark then began a series of rapid revolutions turning several times on its back while circling the skiff, into which it splashed much water. It then retired to a distance approximately a hundred yards and then, turning, charged at great speed directly at the skiff, when suddenly in the line of its attack a large loggerhead turtle came to the surface and was seized in the jaws of the shark, which I heard crushing through the shell of the turtle. I am convinced that this shark had satisfied himself that I was suitable for food and had only retired to acquire speed for leaping into the skiff and seizing me, and that the coming to the surface of the turtle at that instant was all that saved me from a dangerous, knife to shagreen fight.

"My second adventure with the white shark occurred some years later, and although it contained an instant of close-in fighting, yet it was much less dangerous, for I was then trained and steadied by having won many knife fights with sharks and large rays. After trying for an hour to approach within harpooning distance of a large man-eater which was swimming in shallow water near the scene of my former encounter, I got over-board in a depth of five feet of water and had the boat retire to a distance of a hundred yards with the coil of rope, which was attached to the harpoon which I had with me. I also took with me half a bushel of crushed and



Drawn by H. B. Tschudy, under the direction of R. C. Murphy.

A free-swimming species of hammerhead shark, not peculiarly characteristic of either the bottom or the surface of the sea. In its ability to travel with the greatest freedom at various levels, and to turn, rise, or descend with extraordinary quickness, the strange cut-water of its flattened head is an organ of special efficiency.

broken fish to attract the shark, which was then swimming on or near the surface, half a mile to leeward of me. Soon the shark could be seen zig-zagging its course toward me, by crossing and re-crossing the line of scent from the broken fish, just as the bird-dog follows up the scent of quail. With harpoon poised I crouched low, trusting that its approach would be continued in this manner until, by a long cast, I could fasten my harpoon in its side. The scent of the broken fish, however, was so strong that they were definitely located, and the shark charged from a hundred feet away with a speed which has to be seen to be appreciated. I met the onrushing shark by hurling my harpoon clear to the socket into it, near the angle of the jaw, and, as the iron entered its flesh, the shark leaped forward, catching me in the angle formed by its head and the harpoon handle, which caught me just under the right arm, bruising me badly, while my face and neck were somewhat lacerated by coming in contact with the rough hide of the side of its head. As my right arm was free, it was a great chance for using the heavy knife, with which I was armed had my tackle been strong; but the force

of the blow snapped the poorly-made harpoon at the socket and the shark escaped, although it carried its death wound. I never again employed the same black-smith to forge my harpoons, but that poorly-made iron surely brought to a sudden ending a most exciting situation."

TIGER SHARK

"THIS is an abundant and widely distributed shark, very easily identified by its big head and tapering body, spotted color, and unique teeth. It is doubtless due to its large size and the consequent difficulty of handling specimens that it seems to be imperfectly described in current literature. . . . It is with much pleasure therefore, that I publish a photograph which shows the character of the fish very well.

"The stomach of an adult taken near Cape Lookout contained the most varied assortment of food that I have ever found in any shark, consisting of parts of three very large stone crabs, one bird, the small diver called locally water-witch, and other unidentified substances. Its liver was 7 ft. in length, and rich in oil, (actual yield, 15 gallons). Eye, the

(CONTINUED ON PAGE 383)



Drawn by H. B. Tschudy, under the direction of R. C. Murphy.

White Shark or Man-eater

This fish is one of the largest, and undoubtedly the most dangerous, of sharks. It is a rare, tropical species, but immature examples are taken occasionally in northern waters. A small specimen was captured in New York Harbor shortly after the destruction of life by sharks in 1916.

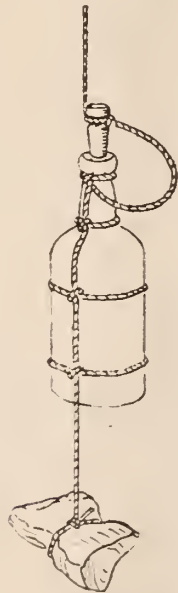


FISHING FOR SPRING WATER

HOW often have you been out in a boat in the hot sun, far from shore and had a consuming thirst, which the warm surface water could not quench?

The fishing was particularly good, maybe, and you did not want to row ashore and go in search of a spring. You longed for a drink of cold water. You might easily have obtained it if you had the simple device here depicted. Almost all lakes are fed by deep springs which keep the bottom water clear and cold so it is simply a matter of having some device which will enable you to bring some of it up to you.

The next time you have occasion to go out on a lake take along an empty beer bottle (there will be plenty of them around after July first) and harness it in rope as shown in cut. Attach a rock to the bottom end of the rope and whittle a plug for a cork. Adjust the plug on the cord with a loop so that it can be used to stop up the mouth of the bottle and you have the outfit necessary to fish for spring water. Plug up the bottle and lower away. When the rock on the end touches the bottom give the cord a quick jerk. The plug will come out and the bottle will quickly fill with clear,



The bottle ready to be lowered

cold water. Pull it up and you have once more outwitted Mother Nature, who hides her most precious stores deep in the seclusion of her innermost recesses.

J. P. H. New Jersey.

MARKET FOR SPRUCE GUM

COULD you, or any of your readers give me any information concerning a market for spruce gum?

I plan to go gumming this year, and would like to know where to dispose of the gum I collect. Spruce gum forms the basis for many compounds made by chemical companies.

I am a regular reader of FOREST AND STREAM, and I will take this opportunity to tell you how much I have enjoyed it during the past year.

In my opinion it is the best all around outdoor magazine published.

L. M., Toledo, Ohio.

WE are depending upon the friends and admirers of our old correspondent Nessmuk to make this department worthy of his name. No man knew the woods better than Nessmuk or wrote of them with quainter charm. Many of his practical ideas on camping and "going light" have been adopted by the United States Army; his canoe has been preserved in the Smithsonian Institution; and we hope that all good woodsmen will contribute to this department their Hints and Kinks and trail-tested contrivances.—[EDITORS.]

HOW TO CATCH WORMS

I HAVE just read David Harold Colcard's excellent article, "Angling for Speckled Trout" in the May edition of FOREST AND STREAM. In one paragraph he tells of the great difficulty of getting "night walkers" for bait. I had the same difficulty myself three or four years ago and I guess most fishermen still have it. We have since discovered a very easy and sure way of getting long, fat, and healthy worms.

Take a glass of water and dissolve in it about two teaspoonful of yellow powdered mustard. Next select a place on someone's front lawn or a grassy plot under a tree. Part the blades of grass and you will find small mounds of dirt similar to an ant-hill. Push aside the dirt and you will find a hole. Into this hole pour two or three spoonful of the mustard water and four times out of five a large nightwalker will come out. This method beats breaking your back with a spade. The worms should immediately be washed off in cold water.

MARSHALL SEUFERT, New Jersey.

SANDWORM BAIT

SANDWORMS are found in black sand, especially under some great rock beside the sea or sound at ebb tide. They grow to 14 inches in length, are of a red color and fringed on either side with branchiae. They have a beak which can pinch quite forcibly. Put them in a box with a small quantity of sand, not too much or they will suffocate. Lay a little seaweed over them and they will keep for days. For striped bass coil a whole one on the hook in such a way that it will wriggle naturally. For other fish they may be broken in two and only half used at a time. They make a very successful salt-water bait in the vicinity of New York. A dead sandworm is useless for bait.

S., New York.

A PORK RIND BAIT

THERE are many ways of adjusting pork rind on a spoon as a lure for bass. Each fisherman has his own individual little touch in making it look attractive to the sporty fish. Here is one method that has accomplished wonders for me. Using a number four Skinner spoon, attach the rind as follows: Cut a piece of pork rind to a shape like a piece of pie, a quarter of an inch thick, an inch and a half wide at the base and about two and a half inches long.

Shave the under side until it shelves

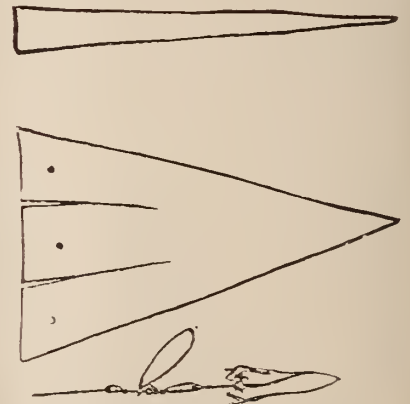


Diagram of Pork Rind

off to a point. Slit the base into three equal parts and fasten a piece over each hook in the triple gang. Pull the rind straight out and give it a twist, which will make it spin when going through the water. Very often this bait will attract a wise old bass when all other lures fail to arouse his curiosity.

R. R. Maryland.



MOSQUITO SMUDGE

ONE of the best smudges to repel mosquitoes is made from a fallen cedar log, dry, but not rotten. Cut strips of bark about six feet long and make a bundle of them and tie them together with strips of the white inner bark of a growing cedar tree. Ignite one end of this and let it smudge in the tent like a cigar. The smoke is very fragrant and agreeable—the best kind of incense for the out-door man. When the mosquitoes are routed let it burn all night at the tent door and none will enter. You will find it well worth the trouble and time it takes to collect the material for this pleasant and efficient smudge.

FIRE LIGHTING WITH A GUN

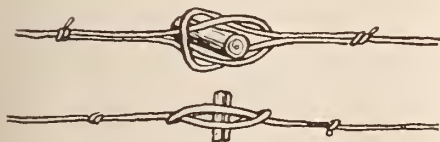
TAKE a bit of rag, the cloth lining from a hat, coat or anything that is handy. Rub powder into it well, then load it into a cartridge or shell. Fire it among a pile of dry leaves and have some small wood shavings ready to catch the blaze before it ceases to glow.

W. R. J., Alaska.

A DEVICE TO SAVE LEADERS

IN joining a gut leader to a snelled hook the tendency is to loop them so tightly that it is hard to take them apart again.

Very often the loops are a little brittle and break easily when they are creased too much, especially if you have forgotten to soak them well before you started fishing. In order to ease this strain it is a good idea to insert a small piece of wood, about one-eighth inch in diameter



The piece of wood in place

in the manner shown in cut. This will effectually prevent any cutting tendency when a strain is put upon the line and will prolong the life of both the snelled hook and the leader.

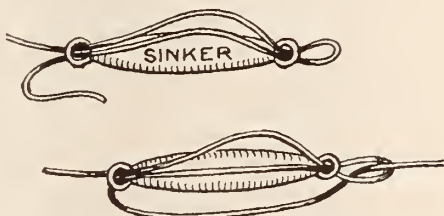
When you want to change the hook it is a much easier operation with this little wooden buffer in place. Little things count for much sometimes and provoking incidents often mar the perfect day on lake or stream.

H. C. P., New York.

TO FASTEN A SINKER

THIS simple way of fastening a sinker to a line is no doubt known to many fishermen, but for the benefit of those who do not know it the following kink will be welcomed for the very easy way it can be applied. Double your line and run the loop through both eyes of the sinker. Slip the hook with line attached, through the loop which can be made as large as required, and pull it tight. That's all there is to it.

You can take it off just as easily or raise and lower it by simply loosening it a little and taking up the slack. I have seen fishermen waste a lot of perfectly good line when attaching or detaching a



A simple way to fasten sinker

sinker, by the cutting and tying method when this device might have not only saved the line but no end of time and trouble as well.

H. G. H., New Jersey.

HOW TO ACQUIRE QUICKNESS IN WING SHOOTING

A GOOD way to acquire quickness in wing shooting is to practice using the gun fifteen minutes every day in the house. Practice throwing it up to your shoulder, both eyes open and pointing it at any small object in the room. Then look with one eye along the barrel to verify your correctness of aim; then follow two imaginary birds, first to the left, then to the right, pull the trigger at some object in passing and see that the motion of following is not checked.

When you think that you are tolerably perfect in this action try snapping a cap, quickly, at a lighted candle at ten feet distance, also at one suspended by a string, to which you can give a pendulous motion. When you can blow the candle out five times out of six, there is little more to be learned.

This may be all very old to most men, but the younger generation of sportsmen will do well to follow some of the stunts that helped the older shooters.

AN OLD SUBSCRIBER.

RAIN INDICATIONS

IF on a fine day dust suddenly rises in a revolving spiral column. If stars are unusually numerous and the Milky Way very clearly defined, with surrounding sky dark. If there is a misty appearance over the stars. If field sparrows wash vigorously in a puddle. If flies are persistently troublesome, look out for thunder as well as rain. If swallows fly closely to the ground. If before sunrise the sky is suffused with red (except in frosty weather). If the sun late in the day shines through a gray, watery haze, it will rain during the night. If the sun at setting has a tinted halo around it. If the moon has a halo around it, especially if some distance from it. If there is a rainbow in the morning. If small, dark clouds float below lighter ones, moving faster than the latter. If in the morning there are low-hanging, smokelike clouds. If there is no dew in the morning. If after a rain drops still hang on the twigs instead of immediately drying. These are all indications of rain.

They have been tested many times and found true to form by outdoor men of many generations. After all, Nature does warn us of her approaching moods and it behooves us to watch her closely.

SENECA.

SAVE THE FROG

VERY often, when casting with a live frog, the hook pulls out of the bait and the frog is lost. Here is a way to make it secure and to relieve the strain on the frog's lips. Loop a piece of string over the hook and bring it around under the frog's fore legs, tying it securely



How to attach the frog

around his body. It is a very simple little kink but it is well worth knowing and will save a lot of trouble for the bait caster and prolong the life of the unfortunate frog. Sometimes frogs are hard to get and it is very annoying to lose one. With this safety first method in use one frog can be used many times. No doubt the wily bass will note the improved method of handling the frog and will be quick to fall for such a tempting and lively lure.

H. F. H., Ohio.

FROM PRIZE WINNERS IN FOREST AND STREAM'S BASS FISHING CONTEST

To the Editor of FOREST AND STREAM:

EQUIPPED with a small tent I spent the week ends during the fishing season of 1918 at Noxontown Lake, Del., engaged in my favorite sport.

This lake, excellent for black bass a few years ago, is becoming fished out, in spite of consistent stocking, and my catch for the season had been nothing to get chesty about.

The 6th of October seemed as inauspicious for fly fishing, or indeed for any kind of fishing as could well be. The wind was from the N. W. and a steady, rather cold rain was falling when I got up, and continued until about 11 o'clock. I cooked some breakfast under difficulties, and pottered around camp for an hour or so, when, realizing that I was going to get soaked anyway, I selected one fly, a Grizzly King, and proceeded up the lake to have at least some casting practice, but not daring to hope for much success in catching fish.

There is in this lake a deep cove, the water shallow, and also rather dirty. A number of fallen trees, in various stages of decay, were lying in the water along the shores. I have frequently heard fishermen pass it by with the remark: "It's only a carp hole," and I held much the same opinion myself, although I had fished it and taken bass there on former occasions.

This morning I fished it rather closely as the wind, although blowing almost directly into the cove was not quite so strong there.

I had out a long line, for me; in fact all I could handle, and when the unexpected rise came, under an old, rotten log, I fear I was caught napping. However, I struck, missed, and the fish came at it again, making a noble rise this time, for the first wasn't much better than a nibble. I had him this time. My theory was, that, having out so long a line and being somewhat slow on the trigger, my strike had not reached the fly when the bass rose the first time, but that, when he came at it again, making the water boil, the force of the strike was just reaching the end of the line. All this only took a moment. It only took another second to tell me that I was fast to an aquatic acrobat who would go back under his dirty old log instead of coming out into the open water where I wanted him. I thanked my stars that I had gone light on cigars and invested in a rod costing rather more than I could afford but dependable from reel seat to agate tip under all contingencies. The wind was blowing me into the cove

LETTERS, QUESTIONS AND ANSWERS

among the fallen trees, and in spite of my best efforts he got down among the submerged branches. Then, according to all the rules of the game he should have been numbered among the big ones that get away, but some how or other he untangled himself. I had no part in it except to swear steadily, and I got him close enough for the landing net. But the net was at the other end of the boat and in going after it I tripped somehow on my raincoat and fell sprawling, but still holding on to the rod. When I picked myself up the bass was heading out into the open water. I don't know whether I had kept a tight line on him or not, although it would be customary to say so but I do know that the hook was still in him. I know that it also would be the thing to say that he took my line out to the last few coils and I could see the barrel of my reel. Maybe he did but I was not conscious of it. All I know is that he made a long run of it, and when I succeeded in turning him he came straight back for the boat, went under it in spite of my best efforts, my leader became entangled around a screw eye which had been let into the stern board of the boat by some former occupant for his fish string, and this was the position he was in, played out and lying on his side, when I slipped the net under him.

I forgot to say in the excitement of telling it, that he jumped twice; once immediately after I had hooked him, when he was trying to get back into his habitat under the log and once again when he had so considerably unravelled himself from among the sunken branches. He weighed 5½ pounds.

M. W. MALSEED, Penn.

To the Editor of FOREST AND STREAM:

WELL the last day has come I thought as I got my tackle ready, which consisted of an ordinary folding bamboo rod, and for bait a small grasshopper. I also used a cheap line with a small hook on the end. I walked down to the pier and after selecting a good heavy stone and some rove for an anchor, I rowed out about half a mile on the lake. I soon cast my line and after awhile I gave my line a jerk but it refused to move, so I thought, as usual, it was caught on some weeds. But sud-

denly the weeds began to move and I came to the conclusion that I had a fish on my hook.

After a very short struggle I swung the fish over the boat and it fell into the bottom. Immediately it began to jump furiously, so I took an old crank handle lying in the boat and after receiving a few sharp cracks between the eyes it calmed down.

I quickly rowed back and after some little trouble I got him home. On measuring him he was 22 inches long and 14½ inches around and tipped the scales at 4½ pounds.

As this was the largest small-mouthed black bass ever caught in the district, before long there was quite a crowd around the cottage. Even the oldest fisherman in the community admitted that he had never caught so large a one.

CARLTON WEST, Ontario.
(Age, 10 Years.)

To the Editor of FOREST AND STREAM:

ON the evening of Friday, October 25th, 1918, I jumped in my car, and started for Watkins Lake, which is located about thirty miles from Detroit, where I had rented a cottage for the season. Arriving at the cottage shortly after 9.00 o'clock I got a fire well under way and arranged things for the night. I then started to prepare for my morning's fishing by going over every piece of tackle.

I had only that day purchased a new "Wilson wobbler," as one of my old ones had seen a number of years' use, and was ready to be replaced.

After cutting off at the shank one hook from each of the gangs, which I always do, owing to the fact that most of the likely pools in our inland lakes are very thickly layed with lily pads and weeds. The other wobbler is left for open water fishing. I have nearly every kind of artificial plug that can be found on the market and while using them all quite extensively, I have found that most of my catches (with the exception of my prize fish) have been made while using a "Wilson wobbler."

On reaching the water's edge the next morning I noticed that the wind was blowing very lightly from the west, and I knew that in a few hours it would be much stronger. I decided to pull for the west shore, and cast around before the wind arose too high, and leave the east shore to be gone over later. On reaching the opposite shore it was still quite dark, giving me ample time for an after breakfast smoke, and time to put my tackle in shape.

A few moments later a faint line came into view, which proved to be the other shore. I at once swung into action, fol-

lowing the course I had been around a great number of times earlier in the season. After making several casts with no results, I was beginning to think I had struck a bad morning, as the wind arose more quickly than had been anticipated, which made it quite difficult in handling the boat.

I succeeded in placing the plug in a small pocket, which had been at one time dug as an overflow for the lake.

I was immediately rewarded with a little beauty, weighing 1¼ pounds. By this time the wind had arisen to a point where it was almost impossible for me to handle the boat, and cast at the same time.

I was forced to pull for the east shore sooner than was expected, and arriving there found that the wind was shifting to the north, which made it as bad, if not worse, than where I had just been.

After a while I succeeded in landing another fish about the same weight as the first one.

Seeing it was useless to continue, I put on my No. 7 Skinner spoon, and at once started toward the north shore.

Having over a mile to go, and against the wind, I thought it was useless to let the spoon out until I got to what was called the fishing grounds.

On nearing the shore I found the water much calmer, which was the result of a very high bank, thickly wooded. I at once dropped the spoon, at the same time letting out about forty yards of line, and proceeded to row around in circles of a mile or so.

I had gotten about half way around on my third circle when suddenly I felt a sharp tug on my line. Being reasonably sure it was a bass and not a weed, I proceeded to set the hooks in him. He at once broke water giving me one glimpse of his head and a very small portion of the body, at the same time burning my thumb as he dove for the bottom.

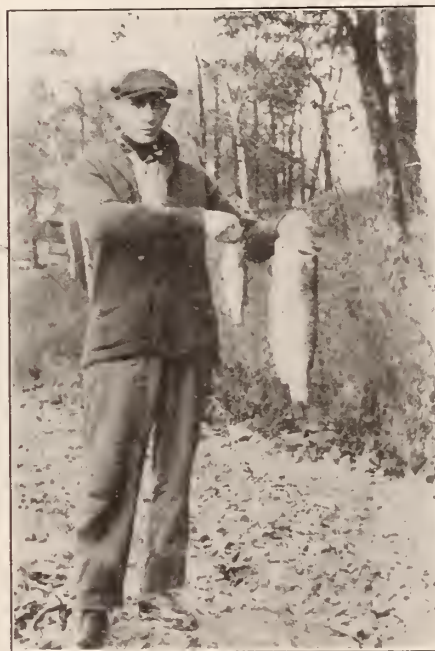
My first thought was that I had a pike, which made me prepare for a hard battle. He took at least ten yards of the line before easing up, then let me reel in about twenty before tightening up again. This time he leaped clear of the water, giving me one of the prettiest pictures I have ever seen, and telling me it was none other than a large-mouth bass. Again he burnt my thumb, this time going a little farther. I thought of a thousand things in a very few seconds and one of them was that the wind was with me, and that as long as it was possible to keep him ahead of the boat I was safe, as the wind would keep the boat in pace with him.

I was again able to reel in a few yards, each time giving me a number of yards gain on him. After see-sawing back and forth for what seemed to me a half hour, I managed to get him within a few feet of the boat. Knowing he must be well hooked, by the way he had torn around, and seeing he was pretty well tired out. I began to think I was going to be the victor. Not having a landing net (I never carry one) nothing was left for me to do but to make a grab for him with my hands. My chance came in a very few seconds, and I was

just about to lay my hands on him when he saw me and made one more feeble plunge, this time going under the boat.

A chill came over me at the thought of the line being cut in two on the bottom of the boat but luck was with me and he went only a short distance, which gave me time to swing my pole and line around the stern and clear of the boat. Again I brought him to the edge of the boat, and as his mouth was wide open I saw my chance to get hold of him, which I did, landing him in the center of the boat. It was necessary for me to lie on him for a few seconds as he seemed to have taken new life, and until I had adjusted both hands on him I was not real sure of keeping him in the boat.

I then dealt him a blow with my hunting knife, thus ending his struggles. On attempting to extract the hooks I found that two of them were so deeply embedded in his upper jaw that it was neces-



Mr. Diem with his 8-pound large-mouth bass

sary to use the knife in removing them. Being more or less excited and quite anxious to learn his weight I at once started for the cottage.

On drawing up to the shore I was very much surprised to find two of my friends, W. J. Pierpont and Willis Osgood, who had a cottage near by and had come down for the usual week-end. After exchanging greetings I showed them my catch and asked them to estimate his weight. After both had weighed him in their hands several times, Pierpont decided he would go at least seven pounds; Osgood saying a few ounces more.

On placing him on the scales at the cottage we were all surprised to find him tip them at exactly eight pounds. Thinking the scales might be a trifle off, and that there was a possibility of his going a few ounces better we decided to verify the result on scales, which were obtained a short distance away. On find-

ing the result the same we were content to say he weighed eight pounds.

JASON FRED DIEM, Detroit, Mich.

A WISE OLD FROG

To the Editor of FOREST AND STREAM:

"PLAYING 'possum" is not confined to our old friend opossum, as I found on a walk with my wife during the latter part of March. Mrs. S. spied a large bull frog, measuring approximately twelve inches extended, sunning himself in some brush along a woods road. He had evidently only recently emerged from his winter sleep, or I would not have caught him. As soon as he was in my hand he played dead—eyes shut and apparently as dead a frog as one ever looked at. Mrs. S. reproved me for killing him. I placed him on the ground and stepped aside and in a moment saw an eye open then the other and just as he drew up his legs for a spring I stooped down and caught him again, when off he went into another faint. He remained perfectly relaxed for five minutes, until I placed him near the edge of a small stream and as soon as I stepped back he was off in a great leap and out of sight in a fraction of a second, the liveliest frog I ever saw.

IRA T. B. SMITH, New Jersey.

THE PASSENGER PIGEON AGAIN

To the Editor of FOREST AND STREAM:

I HAVE been much interested in your recent publication of letters written on the subject of the passenger pigeon, which was formerly known as the wild pigeon.

A great deal has been written concerning their sudden disappearance and the cause that brought about their extinction. For some time we have been led to believe that a great epidemic had brought this about. Then again we read of a storm in the Gulf of Mexico that swept millions of them into the sea. These were seen by people on board of vessels which had to force their way through floating dead birds. Recently we hear of several instances of the birds being seen by people who remember their great flights forty or fifty years ago, when the country was comparatively young.

It is still a great mystery as to what has become of the millions of wild pigeons which were not swept into the sea or destroyed by an epidemic, for these birds were not so localized that all could have been destroyed at one time.

To me it seems more probable that with the advance of civilization and the building up of the country, particularly the west and south, and the indiscriminate destruction of the forests, which took away their feeding grounds, was the cause of their extinction. When one considers the great quantity of feed amounting to thousands, if not millions, of tons produced by the forests throughout the year one can account for their extermination by starvation alone. The forests teemed with the edible pine nuts, black acorns, hackberry, the red and black haws and many other things. These are disappearing fast. The break-

ing up of the prairies and the draining of the little prairie lakes proved fatal to the canvasbacks, red heads, geese and other wild fowl that once bred all over North Dakota and Montana. The cutting down of the forests, making large areas of open country without feed or breeding places has proved fatal to the wild pigeon.

I think this theory could be well proved if looked into thoroughly.

It is probable that a few specimens of the wild pigeon still exists and in the future it may be our good fortune to meet with them more frequently. There is now a more rigid supervision over the wild game and the forests and it is to be hoped that they will not be allowed to drift away into the shadow of the past.

GEORGE ROWLAND, Connecticut.

THE COOING FISH AGAIN

To the Editor of FOREST AND STREAM:

I NOTE in the May issue of FOREST AND STREAM a letter written by Mr. George S. Hastings of Washington, D. C., in which he states that he has caught one of those "cooing fish." He says that he hooked a fair size trout that came off his hook and rolled down a thirty foot rock slide, that he was in close pursuit of this fish and just as it was about to get back into the water he grabbed it and to his astonishment the trout let out a harsh little "squeally squeak." Take it from me, Mr. Editor, that squeak came from Mr. Hastings and not the fish. I have been there too and have not only heard fish squeak and squawk but have heard them do a lot of cussin'.

If Mr. Hastings still insists that his trout squealed, my advice to him is to handle them gently. You can almost squeeze a squawk out of a rock. Handle 'em gently, Mr. Hastings, handle 'em gently, trout spoil quickly after you bust 'em.

R. L. Cox, Georgia.

CAMPING IN AN AWNING LEAN-TO

To the Editor of FOREST AND STREAM:

A SPLENDID housing for campers on canoe trips is embodied in the familiar lean-to of ordinary tent cloth. It packs into a small bundle and may be used as a wrapping for bedding, utensils, and the like, packing into the bottom of the canoe in a very convenient manner. It is quickly and easily set up and dismantled; making it ideal for one night "stands," taking the minimum of time for making and breaking camp, when a late arrival is made and an early start desired the following morning.

Not wishing to purchase the necessary materials for such a protection the writer appropriated an old veranda awning covering, which just happened to be the right size, and with a little mending found in his hands just what he wished to have. It was dark in color from much weathering and was not nearly so conspicuous as a new white canvas would have been, making the camp much more picturesque than the brand new white material could have made it.

Along the top edge a rope was lashed, projecting for some length on either side, and at the four lower corners, loops of rope were fastened that were to be secured to stakes when the lean-to was set up. Each end of the rope along the top edge was to be made fast to a tree at the proper height from the ground, two of which must be selected the proper distance apart, with a clear space between them. One side of the lean-to should be placed close against one of the trees leaving the other side free. To add a little strength to the free side a forked stick may be used as a prop for the rope which at this point will sag a little. The tightened rope makes a good wash line or utility line for hanging things free of the ground. A carpet strip was in the bottom of the writer's canoe, similar to many others. At night this served as a little drop, one end being tacked to the tree close to the lean-to and the other to the prop. It



Snug and comfortable in an awning lean-to

helps considerably in keeping off the chill of night.

The canoe was dragged up on shore and turned on side leaning against the tree above mentioned, with the open side towards the sleepers, also protecting them, as well as keeping the canoe safe from possible theft. A small fire built in the space between the canoe and the tent added the finishing touches in making the campers perfectly comfortable. The outfit herewith described did very well for three campers without crowding. Two paddled while the third rested on the outfit in the middle of the canoe. By careful packing it was rigged up into a very comfortable resting lounge, the bedding protecting one from the corners of the various camp equipment.

C. M. BREDER, JR., New Jersey.

SHAPING ARROW HEADS

To the Editor of FOREST AND STREAM:

I N the letter on arrow heads in your April number, Mr. J. W. McIllree of Victoria, B. C. wanted to know how they were fashioned from flint and I would like to add this to the letter by

Clark Wissler in answer to the above:

The American Indian used a charcoal fire and a hollow cane for a blowpipe. Heating the flint very hot they chipped it to the desired shape by means of cold water, applying a little at a time until the hard substance gradually crumbled away.

HAL HUDSPETH, Texas.

SHOT GUN ACCURACY

To the Editor of FOREST AND STREAM:

I N your issue for May of the current year there appears an article under the above heading which is misleading. As an ardent lover of the good old style double gun, barrels side by side, I cannot refrain from defending it, for they have stood by me in weather fair and foul, for over fifty years, in all kinds of shooting, at all sorts of game, in gauges from 8 to 28 including many different makes both foreign and domestic.

The writer in question would try to make it appear that all double shot guns shoot off center from one or both barrels, basing his opinion, presumably, on the performance of whatever guns he may have tested. The very fact of his self-confessed deductions proving beyond doubt that he never has tried a first class, accurate shooter, else he never could have come to that conclusion.

He relates his own experience, attributing his misses with different guns, entirely to the fact that they shoot off centre, forgetting altogether that perchance faulty pointing, or an ill-fitting stock might be to blame.

That some guns do shoot off center is a well-known fact and no one with experience will attempt to deny that. On the other hand, neither will any authority worth quoting assert that all shot guns shoot off centre from one or both barrels because that is tantamount to the broad and untenable statement that all shot guns are defective, for no gun, regardless of its make, is an honestly and accurately made fowling piece that does not at least shoot straight at all sporting ranges.

The idea of suggesting casting "on" or "off" the stock to rectify the shooting of a defective barrel, is too grotesque to merit serious consideration, and although the writer of the extraordinary article may have been measured and fitted by foreign experts, that is quite irrelevant to the case in point and in no way warrants the broad and unsupportable statement that all guns shoot off center for no one, with any experience in testing guns, would accept, at any price, one that admittedly shot 2 feet to the right of the mark at 40 yards, which is what Mr. L. Mitchell-Henry admits his specially bored and choked pigeon gun actually did.

If Mr. Mitchell-Henry's idea is to recommend the "Under and Over" gun it would seem there should be some better, and more straightforward method of doing so, without maligning and misrepresenting what is universally accepted as the best and most serviceable shot gun in the world—the good old style, reliable, double game gun.

GAUCHO.

LYNX IN THE ADIRONDACKS

To the Editor of FOREST AND STREAM:

APPARENTLY the "big cats" still inhabit the Adirondacks. A dispatch from Upper Jay, dated May 10, has been forwarded to me by an old friend who says he got it from a New York paper. It records that Asher Winch caught a Canadian lynx in his trap. It was about three feet long.

Available references say that the Johnstown *Republican* of December 23, 1908, recorded the killing of a large lynx by hunters in Nine Mile Swamp, near North Brookfield; that the *Randolph Register* of December 25, 1908, told of the killing by hunters of three lynx in the Quaker Bridge region by Lockport hunters; that the *Cooperstown Journal* of September 4, 1909, reported the killing of 5 lynx by a party of hunters in a den near Lowville. The last report adds: "All were large animals and had killed considerable farm stock before the den was raided."

I have not kept any records since 1910, but doubtless the Conservation Commission can easily tell what, if any, the killings have been since that year.

JOHN D. WHISH, New York.

CAMOUFLAGE IN BIRD NATURE

To the Editor of FOREST AND STREAM:

CAMOUFLAGE, protective coloration or mimicry as it exists in bird life is one of the most interesting features in the study of natural history.

The ruse is applied to advantage by many wild creatures in order to deceive the eyes of their enemies. They bring into use the natural markings of their feathers or the contour of their bodies in such a way that they harmonize with their immediate surroundings. This peculiar trait is not confined to birds alone but exhibits itself in striking instances among animals, reptiles, insects and even fish.

Two distinct and noteworthy examples of camouflaging in birds appear in the regular habits of the Least Bittern and the Great Horned Owls. They excel many of their feathered kin in this means of deception, not entirely on account of the concealing color value of their feathers but due to the plan of posing in positions that simulate the objects by which they are surrounded.

The Least Bittern's reed-like color pattern not only matches his environment of the swamps but in addition he imitates in pose the vertical growth of the cattails in the swamp by stretching his neck high into the air and remaining in this attitude until all danger of his being detected has passed. The accompanying photograph gives an idea of this position. The little Bittern especially makes an amusing picture, trying to present the appearance of a reed in the marsh, with its elongated neck and bill pointing directly heavenward as if imploring the powers above for protection. However the trick is usually so cleverly executed and the color markings of the bird conform to its surroundings in such a natural manner that it is easily mistaken for a reed even within a few feet.

The Great Horned Owl has a similar means of making his form take on the aspect of a dead branch of a tree. By half closing his eyes and tightening down the feathers on his body, he can so distort his bird-like outline that he can readily pass for almost anything but the wise and alert bird that he is.

I have paid particular attention to this means of disguise while using one of these owls as a lure for attracting crows. If the owl is tied fast to a stake and is not annoyed for a considerable time he will make frantic efforts to escape, but if any one happens to approach him he immediately assumes a rigid pose, stretching his body, half closing his eyes and tightening down all his feathers,



Note the almost perfect camouflage

there he will remain until he finds the trick has failed, then he again assumes his natural position waiting to see what will happen next.

ROBERT H. ROCKWELL, New York.

WATSON THE OUTLAW

To the Editor of FOREST AND STREAM:

HAVING known Edgar Watson and his mother before he began his life of outlawry, I am prompted to write this letter.

His dear old mother was a lady of high character, education and refinement, and he had a sister, Mrs. Collins, also a refined lady. I have been in her home times without number as a child and a young man. They have long ago passed away. His father was a wild, fighting character, called "Ring Eyed Lige Watson," so named from a scar around one eye, received in some fight. They lived at Ridge Springs, South Carolina, and both Edgar and Mrs. Collins were born there. When Ring Eyed Lige's conduct had become unbearable to Mrs. Watson, she took the two children and

moved to Florida to live with relatives in the southern end of Columbia County, where Mrs. Collins was married to a man of high character. Edgar Watson also married his first wife there. Ed was wild and rowdy, fighting on the least provocation. He became deeply involved in debt here and as a child I remember, on a bright moonlight night, seeing him pass my home with all his belongings, jumping his debts. This was in the summer of 1886. Nothing was heard from him for some time until we heard that he had broken jail in Indian Territory where he was under sentence of death for the murder of the famous outlaw Belle Starr. It seemed that she had just visited him and after leaving his home she had to pass around his field. He crossed the field and killed her, was arrested, tried and convicted, but escaped. No one heard any more from him for several years, when it was rumored that he was in the Ten Thousand Islands of Florida. His first wife died in the meantime.

Some time, about 1904, he moved back to Columbia County and he was living as a good citizen again. It was not long, however, before he was being seen with men of not very good reputation. Finally he had a difference with Sam Tolan over a will in which Mrs. Tolan had willed Watson's niece some property and Tolan would not deliver it. So one day Sam Tolan was found murdered in the road and his horse was killed also. Watson was suspected but no direct evidence was obtainable and he was turned loose again.

Watson married again and had several small children during his stay in Columbia County. About 1908 Mike Tolan, Sam's brother, was waylaid and murdered at his mail box and Watson, a young boy, his last wife's brother, Lester Cox, and a negro were arrested and put in jail at Lake City, Fla. As there were rumors of lynching they were brought to Jacksonville for safe keeping. Their lawyers got a change of venue and the case was tried at Mathison, Fla. They were again set free.

He was told to return to the Ten Thousand Islands and stay there, which he did.

Lester Cox, his brother-in-law, later murdered an old negro his wife and son-in-law, and was arrested, tried and convicted. He was sentenced to life imprisonment, but he escaped and went to Watson. Later he was killed by Watson, who shot him in a boat and dumped him overboard. Watson then reported to the sheriff that he had killed Cox and the posse went to view the remains.

For some reason I don't know just why, Watson was killed. They discovered blood in the boat in which it was suspected Cox was killed. It was supposed that Cox and a negro, who confessed that they had been hired to kill some one to whom Watson owed a debt, were also meant to be murdered by Watson, but the negro got away. This is true—I remember the facts, and I have always wondered why a man who had had the chances Watson had, could bring himself to do the number of cold blooded

(CONTINUED ON PAGE 373)

B.S.A. RIFLES

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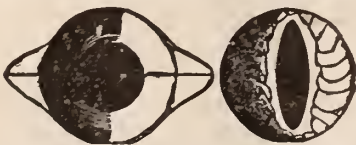
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SHOT GUN EVOLUTION

THE GUN OF TODAY STILL LEAVES MUCH TO BE DESIRED FROM THE STANDPOINT OF CONVENIENCE AND HANDINESS

By E. NEWITT



WHILE the rifle has been greatly improved in every feature which makes for power and efficiency, is it a justifiable reflection upon the ability of our ballisticians or upon the progressiveness of our firearms industry that the shotgun remains very much where it was forty years ago?

The mechanic, it is true, has applied breech-loading in single, repeating and automatic forms, and smokeless powder in many varieties has been adapted to shotguns, but can it be said that anything has been done in any way to adapt the gun to these newer propellants, with the definite purpose of realizing all the possibilities smokeless powders offer?

From the first, smokeless powders, to use an untechnical expression, were stronger, and hence could have been made to generate the same energy as a charge of blackpowder, while occupying considerably less space, but, as it was too much to expect gun makers to alter stabilized chamber dimensions to accommodate a newcomer with a reputation still to make, the powder maker had no alternative but to accommodate his powder to the gun, which was done by bulking it with some inert component which did little more than fill space.

But smokeless powders, in many forms, with many virtues, have now been with us for nearly 40 years. Their reputation is established to a point which has displaced the use of black gunpowder in some countries entirely and seriously shaken its pre-eminent position in this, and no doubts remain as to the permanence of its position among the utilities of the age.

Save for the purpose of filling the space in a gun chamber, designed for an entirely different powder, there has never been any necessity for one-third to one-half of the bulk of most smokeless powders. Condensed smokeless shotgun powders, of which Ballistite is one example, have indeed also been evolved, and similarly established a reputation which insures their continued existence. These, needless to say, also demand the aid of space fillers in the cartridge to accomplish the same purpose as that effected by inert material incorporated into the bulk powders, hence the necessity for special shells with coned base wads, extra wads between powder and shot and such like expedients which do much to discount the many advantages these condensed powders otherwise possess.

It is perfectly obvious that with powders available which, while occupying much less space will generate all the energy requisite, it is equally possible to diminish the external as the internal dimensions of the cartridge, provided we

are prepared to diminish our gun chamber dimensions as well, and it may easily be shown that there are sound reasons for considering an evolution such as this.

The nature and construction of the double-barrel gun not lending itself to American interchangeable, high-speed machine production, United States manufacturers have in the last 20 years or so evolved the repeating or pump gun, and later, the automatic repeater.

In view of the diameter and length of existing cartridges the length of travel of the repeating mechanism renders unavoidable a gun of dimensions which admittedly leave much to be desired in point of convenience and handiness. To this is doubtless due the recurring demand for 20-bore guns, though it may be questioned whether sportsmen have correctly expressed their wants or gun-makers have correctly interpreted them.

Sportsmen want a lighter, handier gun and not unnaturally ask for the only lighter and handier gun of which they have knowledge, but in interpreting this demand it behooves the maker to consider whether this want will be met by any gun having materially less shooting potentialities than a 12-bore. Moreover, the length of the 20-bore cartridge is the same as that of the 12 and 16-bore, and therefore promises little amelioration of the difficulty, incidental to the length of travel, of the repeating mechanism necessary to handle it.

The capabilities of a 20-bore are, despite the asseverations of its votaries, not adequate to the general requirements of the average sportsman, hence a demand sufficient to reward the enterprise of producing a 20-bore in any shape or form is not in the writer's opinion at all likely to materialize.

Nevertheless, the demand for a lighter, handier gun is perfectly legitimate and may be adequately met if gunmakers are prepared to approach this novel problem as one to be solved only by an evolution, which in fact is already long overdue.

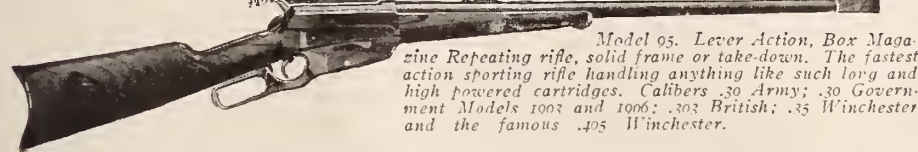
Considering it from the sportsman's standpoint and handling it after the manner of the modern ballistic engineer we first inquire what is the smallest shot charge adequate to general sporting requirements. The consensus of opinion, supported by many experiments at the pattern plate, tend to show that one ounce of shot will cover sufficient area at sufficient density to kill most of the winged game of America, while embracing the shooting errors of the average sportsman. It is well known to ballisticians that a particular weight of shot is more efficiently handled by one particular calibre than by any other; experiments conducted by the writer proved that a calibre of .69 (a 12-bore is .726 and a 16-bore is .671) gives better distribution of a one-ounce charge than any other calibre which has been produced.

(CONTINUED ON PAGE 373)



.30 Government Model 1906 Pointed Full Patch
.303 British Soft Point
.405 Winchester Soft Point

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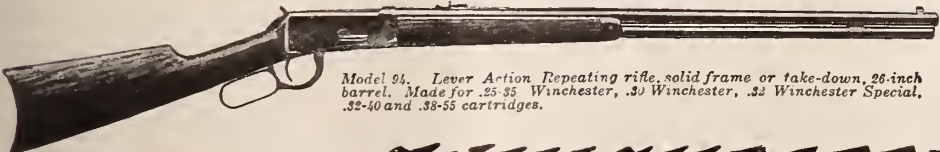
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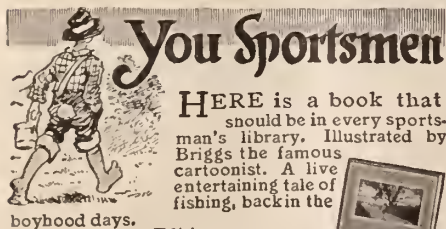
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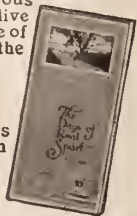
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THE WAYS OF ANGLERS

TO POSSESS THE SKILL TO DROP A FLY IN A CERTAIN SPOT IS OF MORE VALUE THAN TO BE ABLE TO MAKE LONG CASTS

By W. E. WOLCOTT



HERE are in these days many expert and enthusiastic anglers, and may their numbers increase, who maintain that the artificial fly is the only lure that should be used in fishing for speckled trout. Most of them claim that they can make as good catches at all times

and under almost any conditions as the bait-fisherman can, and that frequently trout will take a fly when all other lures are ignored. Not a few of the enthusiasts go so far as to say that if they cannot catch trout with a fly, they will not catch them at all. Beyond a doubt fly-fishing is the neatest and most sportsmanlike method of taking trout, and it has fittingly been termed the poetry of angling.

ALTHOUGH fly-fishing is one of the most fascinating of outdoor pastimes, there is a large class of proficient anglers who do not believe in restricting their resources to this mode of luring the speckled beauties. They are skillful in handling the fly and disposed to give it the preference when they think nothing will be lost by so doing, but they do not hesitate to resort to the use of bait when conditions appear to warrant such a course. Such anglers may very appropriately be styled eclectic fishermen. They admit that better results can often be obtained with artificial flies than with anything else, but they also know that sometimes the trout will refuse to come to the surface of the water after them, and perhaps sinking the flies may prove equally ineffectual. At such times the eclectic angler will not disdain to try some other means of tempting *S. fontinalis*, preferring to sacrifice sentiment so far as artificial flies are concerned, rather than return home with an empty creel.

IT is in fishing for big speckled trout, if we believe what the eclectic angler tells us, that the bait most frequently accomplishes what the artificial fly has failed to do. That large trout are sometimes taken with a fly cannot be denied, but many fishermen who profess to know what they are talking about, declare that as a rule bait is preferable. In other words, they say that the big trout which rises to a fly will almost invariably take a bait equally as well, if a tempting morsel is properly presented, and they claim to have learned by practical experience that good fish can sometimes be taken by using a small minnow, a chub's tail or even angle-worms where fly-fishing in the same spot has proved ineffectual. Maybe the larger trout are so lazy they prefer the bigger lure.

IT is rarely essential to make extremely long casts while trout fishing in Adirondack waters. It is better for the angler to approach as near as caution will permit to the place where he has seen a trout rise or where he believes one to be lying, before making his cast. To possess the skill to drop one's flies gently in the precise spot where it is desirable to have them fall, is of far more practical value in every-day fishing than the ability to break the long-distance casting record. Most experienced fly-fishermen will probably agree that it is best, just and equitable that in fly-casting tournaments the test of skill should hinge upon the dexterity of a competitor in accurately placing his flies at a given distance, say from 40 to 75 feet, rather than the ability, perhaps in a measure because of the construction of rod or line, to hurl them a little further than any one else. For ordinary fishing on the rifts of Adirondack streams, 40 feet of line is ample, and more often a less amount is required. Occasionally on a bright day, while fly-casting on a shallow lake or over a cold bed of spring hole, it may be desirable to use more than 40 feet, but even then great care should be exercised not to let out more than is absolutely necessary. The angler who attempts to swing more line than he can readily handle will invariably find himself seriously handicapped in fishing not only because of the extra risk which he takes of having his flies entangled in the shrubbery or the branches of overhanging trees, but on account of his inability to drop his flies in the exact place where he wishes to, and the additional fact that any undue slackness in the line will render the hooking of a trout difficult.

ONE of the most important lessons to be learned by the beginner in angling for brook trout is how to hook the fish when he rises to the lure. The trout must be fastened promptly, especially in fly-fishing. This does not mean to yank him out of the water, but simply to set the hook firmly into his jaw. Do not wait until the trout has time to discover that a fraud has been perpetrated as the hook will be instantly ejected. It is a pretty safe rule to strike the trout as soon as you realize he has struck your fly. To properly fasten a trout the so-called "wrist-knack," which all successful fly-fishermen must acquire, is very important. Proficient anglers, men of acknowledged literary ability have essayed to impart to the world at large the real secret of the wrist knack, but while their descriptions appear graphic to the initiated the tyro often finds it extremely hard to put what they say into practical operation. It is equally difficult for the expert angler to show the beginner just how the act is performed and illustrate it and explain it so clearly that he can-

(CONTINUED ON PAGE 369)



FOR HOT WEATHER FISHING—

PULL THIS PAST THEIR NOSE

When the shallows warm up during the hot summer days and the bass hunt the cool spring holes or deep pools, the muskallonge, pike and pickerel are sluggish and lazy—all the game fish seem to be eternally hard to interest in your lures—your stringer is empty—your temper a bit ruffled—the “darned lake is fished out anyway” you think—THEN cast out a PFLUEGER LUMINOUS TANDEM SPINNER across the pool—let it sink down where the bass are lying close to the bottom—reel in fairly slow—set the hook and play your fish. If there is a fish in the waters you cover with your Pflueger Tandem Spinner, you’ll get that fish because they cannot resist the spinning flash of this winning lure. There is a distinct and peculiar flash of light shafts thrown by the Pflueger Tandem Spinner that brings the strike when other lures fail. This broken flash that is so attractive to the game fish is produced by the spinner blades spinning in opposite directions—a something different flashing invitation that no other spoon, spinner or artificial lure can shoot out to the fish.

There is hardly a seasoned angler who does not carry a selection of different sized Pflueger Tandem Spinners in his tackle box, and the fisherman who does carry them is always the chap who gets the fish when they are hard to get—when the fish are supposed to be “off the feed” and you cannot raise a strike—then is a great time to surprise yourself by using this strike producing, stringer filling lure.

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For fly casting for bass or trout size 3/0, 30c, or size 2/0, 35c. For bait casting for bass, wall-eye pike, pike or pickerel, size 1/0, 40c, or size 1, 50c, size 1 also good for trolling for bass. For trolling for muskallonge, pike or pickerel, size 2, 60c, or size 3, 75c. No war tax. Delivery guaranteed. postpaid.

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Are you landing your share of the big ones? Are you getting a full measure of sport out of playing the game fish right? Do you know where to look for the game bass, fast fighting trouts, wily musky? You can learn all this and a heap more good fishin’ information by reading PFLUEGER’S TIPS ON TACKLE, a pocket-sized book on fishing that we will be pleased to send you free of all cost if you write in and ask for it. Chapters on all phases of game fishing written by the leading authorities—dope that will make your fishing better, your pleasures along lake and stream waters more enjoyable and give you a working knowledge of game fish, their habits and peculiarities—things that are interesting to every angler. Write today because the big edition is going fast and you ought to have your copy to help boost your average this season.



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AFTER GOAT IN ALASKA

DWELLING AMONG THE PEAKS OF ALMOST INACCESSIBLE MOUNTAINS THIS STRANGE ANIMAL FURNISHES MUCH EXCITEMENT

By ROBERT E. MCGLASHAN



THIS was my third trip after mountain goats, but as yet I had never seen one. Two friends and I arrived in Frosty Bay, forty miles south of Wrangell, Alaska, late one afternoon, about the fifth of December, on board the gas boat *Bayfield*.

Of the three hunters on board I alone was destined to meet with success on this occasion. We had worked our way down to this bay in the teeth of the winter storms, landing several times *en route*, but seeing no signs of goats.

A huge mountain, heavily timbered nearly to the summit, loomed up on the north side of the bay. It did not appear to be a promising location for goats, so I decided to start early in the morning to try and reach another mountain inland from the head of the bay, while my partners ascended the one near at hand.

On this occasion I had two Savage rifles, a very reliable 303 special eight and half pound gun, which I had owned for some time, and a new twenty-two high power, just as I had received it from the hardware store, with its factory sights and heavy, unadjusted trigger pull. Intending to look only for signs and not expecting to see any goats, I decided to take the lighter rifle.

I set out at dawn and by eleven o'clock had arrived near enough to my objective point to see that it was not nearly as promising as it had appeared in the distance. By this time I had reached a position where I could see the north side of the big mountain by the bay. From this side it had a very different appearance. Ledges and terraces succeeding one another up to timber line, above which were several steep rock slides. Knowing that my friends, from their starting point, would be very unlikely to find this section of the mountain, I decided to ascend and explore it myself.

I, accordingly, began and, after one hour's stiff climbing, found myself in a whirling snow storm. Another half hour of ascent and I discovered in the rapidly accumulating snow, the fresh tracks of a large goat. He was on the move and traveling along the mountain side. I followed him as fast and cautiously as possible, experiencing no difficulty as the track followed old trails along the benches and crossing now and then a timbered spot. I feared that he had winded me, but as the storm increased and the tracks turned up the mountain into timber, I judged from what I had been told of their habits when alarmed, that he was unaware of my presence.

I followed cautiously, watching in-

tently and hoping every minute to catch sight of the animal, when I arrived at my first serious obstacle. The tracks we were following went along a bench at the top of a perpendicular cliff to the top of a sort of trough in the rocks, sloping at an angle of about forty-five degrees, down to another bench about forty feet below, where they ended with but a few scant inches for a foothold, before dropping over another sheer precipice of one-hundred and fifty or two hundred feet. The goat had deliberately sat himself down in this trough and slid to the bottom.

To attempt to follow him by that route would have been suicide for me and as I stood peering down through the falling snow, in an endeavor to see whether he had turned to right or left, I saw the goat. There he stood not more than one-hundred feet from me, on a narrow shelf; his head and neck hidden by a twisted tree trunk, but the rest of him in full view, white and shaggy as a polar bear.

The little stranger I was carrying came to my shoulder, the bead found the

(CONTINUED ON PAGE 384)



The mountain goat at home

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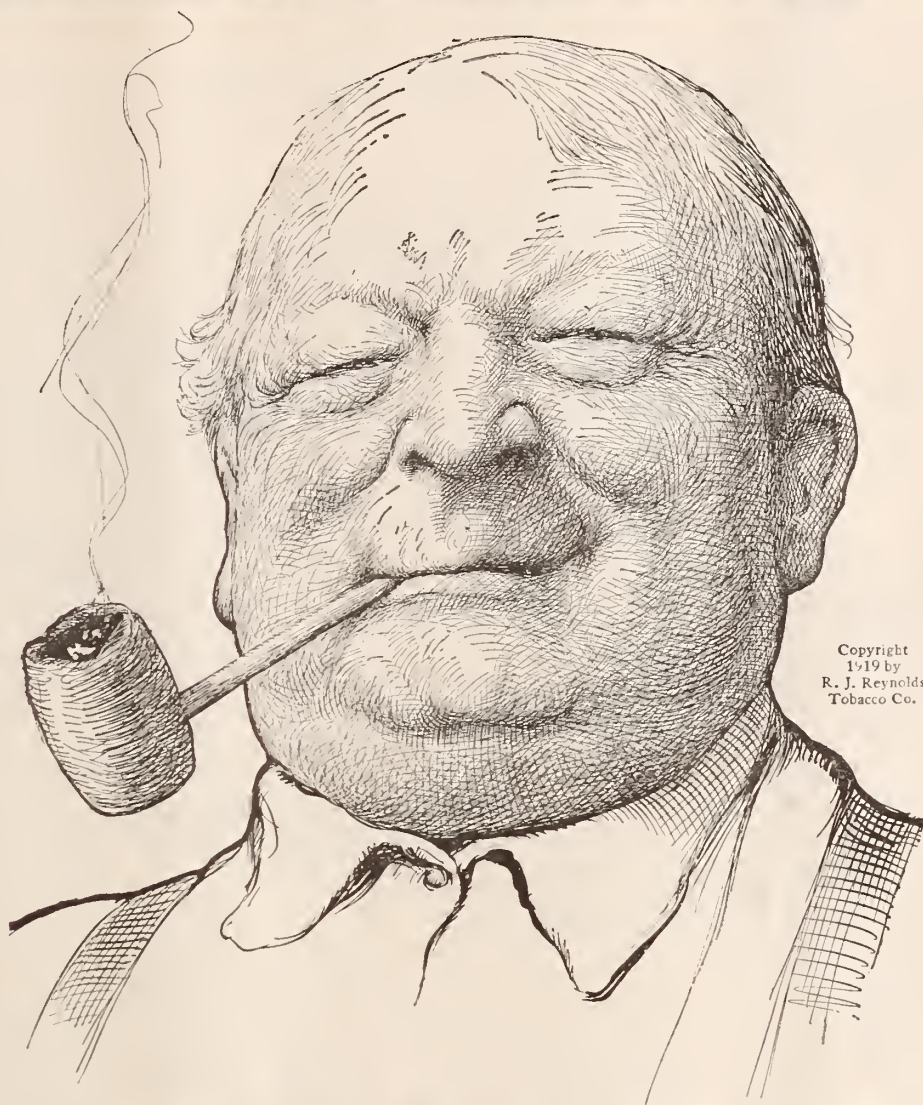
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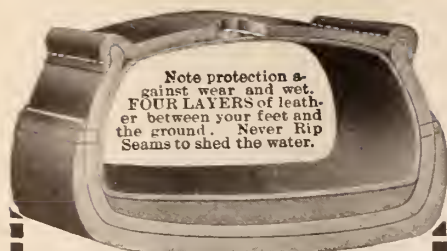
Well, sir, you'll be so all fired happy you'll want to get a photograph of yourself breezing up the pike with your smokethrottle wide open! Quality makes Prince Albert so different, so appealing. And, P. A. can't bite or parch. Both are cut out by our exclusive patented process!

Right now while summer's young you get out your old jimmy pipe or the "papers" and land on some P. A. for what ails your particular smokeappetite!

Buy Prince Albert everywhere tobacco is sold. Tippy red bags, tidy red tins, handsome pound and half pound tin humidors—and—that classy, practical pound crystal glass humidor with sponge moistener top that keeps the tobacco in such perfect condition.

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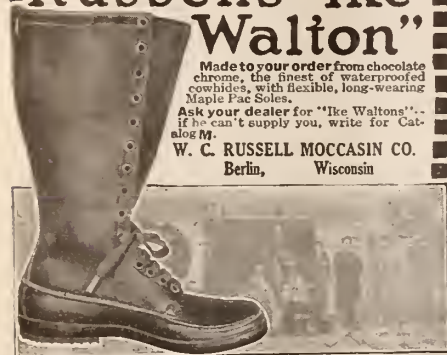




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to give } \$..... for children in their own
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I enclose herewith \$..... in part payment for the above and pledge myself to give the remainder in payments.

CROSS OUT THE PARAGRAPHS YOU DON'T ACCEPT

I promise to give the same amount next year. I wish to know the name and address of the child or children.

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NOTES ON THE WET FLY

THERE ARE TIMES WHEN TROUT WILL TAKE A SUNKEN FLY MORE FREELY THAN ONE PRESENTED ON THE SURFACE

By LADD PLUMLEY



It is the notion of many fly fishermen that dry fly fishing is the modern stunt in angling and that to be in fashion in fly fishing you should use that lure. But dry fly fishing is not modern and has been followed for very many years. Long before the dry fly, as a distinct and definite mode of angling, received much attention on the part of sporting writers, the use of the dry fly—under certain conditions—was general with many fly fishermen, both in England and in this country. You will find the use of the dry fly advocated even in such rather ancient compendiums of fishing as "The American Angler's Book," by Thaddeus Norris, and the first edition of that book was published in 1864.

Forty and more years ago I took trout with a dry fly over smooth pools, and the occasional use of the dry fly was general on the part of many anglers. But at that time the dry fly was not in use solely by itself but was combined with the wet fly. When deemed productive we used one mode or the other, as conditions required. And this it would seem, even at present, is the most rational method for obtaining the best results, for there are times when trout will take a sunken fly more freely than a fly presented on the surface.

It may be asked what is a wet fly? And just as a dry fly is constructed so that it floats on the surface, its wet brother is dressed in a manner so that almost immediately it sinks below the water. This is attained with delicate hackles and light body and wings, and generally, with material that absorbs moisture.

For the best results, the wet fly should be presented in much the same manner as when presenting the dry fly. This mode of fishing with the wet fly is not at all usual, and yet, if followed, will at times bring the most splendid sport. The dry fly fisherman wades against the water and he casts his single fly upstream and never down. There are excellent reasons for this procedure, as trout have not yet developed eyes in their tails and always rest with their heads against the current. The approach, therefore, toward a trout's rear instead of toward its head will be less likely to disturb the fish. It would seem that with the use of any lure whatever the angler should always wade and cast his lure upstream and not down.

Again, the study of the history of upstream, against the current, fishing will prove that the mode has been practiced for very many years by the most suc-

cessful fly fishermen. For instance, it is strongly advocated by Stoddart, the celebrated Scottish fly fishing expert, for clear and low streams, and as early as 1850 or thereabouts. But it is true that, until quite lately, the use in wet fly fishing of the down stream method has been almost universal.

The flies of the down stream, wet fly fisherman are generally attached by conspicuous loops on both the fly strand of gut, as well as on the leader. A little consideration will show that this practice with two or more flies in wet fly fishing, and the conspicuous loops, is one of the reasons, perhaps the most important reason, aside from the downstream mode of fishing, why dry fly fishing is considered by many experts to take the largest fish of any water.

There can be no question but that upstream fly fishing, wet or dry, is more creel-filling than the down stream mode, and, of course, the dry fly cannot be used except as an upstream lure. And there can be no question that the less complicated and less conspicuous the attachment of flies to tackle, the more trout productive will be the efforts of the fisherman. These things seem axiomatic; they do not seem to be open to any argument whatever.

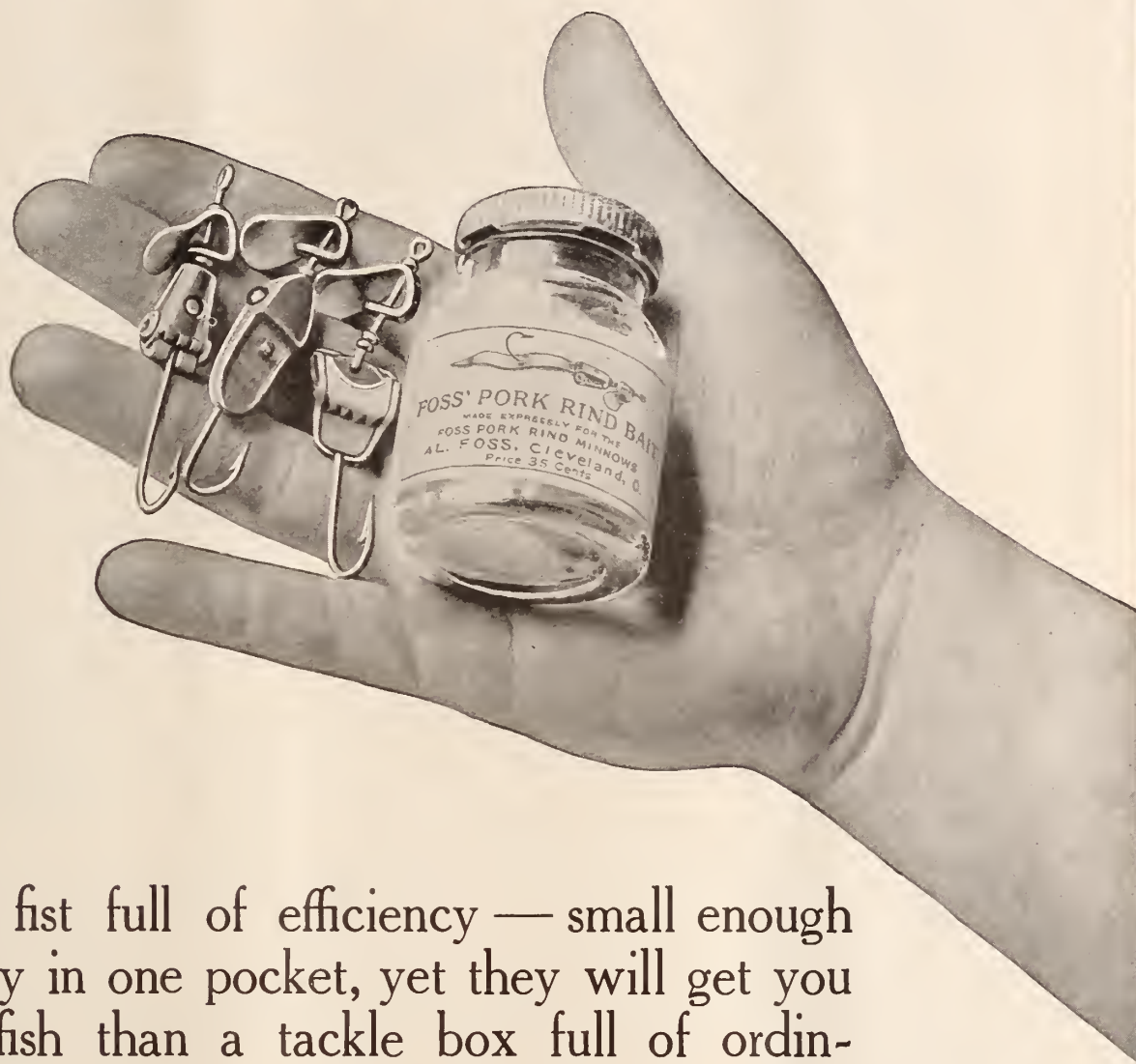
At the present time most American fly fishermen obtain their sport in waters that are much fished and where trout are educated as to man's devices for taking them. The time has gone, never to return, when the fly fisherman can productively slosh heavily downstream, casting three flies here and there, as if he were casting pork-rind for pickerel. If he desires even a few trout he must change his methods and change them radically.

Wet fly fishing, when pursued scientifically, will prove very profitable as to the number as well as to the size of the catch. The following suggestions are the results of many years of careful study at the streamside, where I have frequently spent a full fishing season. I might say that during the past five years I have taken, by the modes described, a very large number of trout, both brown and native, and for the waters fished many of them of the first trout magnitude.

IN wet fly fishing it is important to have the leader of a correct length and tapered to the most-tenuous and slender gut which can be used with safety. After much experimentation the following leader is suggested for this work. It should be from seven and one-half to eight feet long, this length for a nine foot rod, the rule being that the leader should be a foot or so shorter than the rod. For in netting a big trout a longer leader is dangerous, as a

(CONTINUED ON PAGE 370.)

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By JULE MARSHALL



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THE war has brought out the word "hike." The soldier-hikes have made the word common and attractive, perhaps also the exercise itself. I find people everywhere talking about hiking and on questioning them learn that it is a walk that is contemplated, probably in the park.

To out-of-door people a hike means a camping trip a-foot, not in the city but out in the country. Hark, a moment, to NESSMUK the pioneer of outers:

"For brick and mortar breed filth and crime,
With a pulse of evil that throbs and beats;
And men are withered before their prime
By the curse paved in with the lanes and streets.

And lungs are poisoned and shoulders bowed,
In the smothering reek of mill and mine;
And death stalks in on the struggling crowd—
But he shuns the shadow of oak and pine."

With this warning in mind, we must shun the confines of office and factory and seek the freedom of hill and dale. If we must endure the mechanical side of life for five and one-half days of the week, let us spend our "rest billet" out with natural things.

Various parts of the country are more or less favorable to the enjoyment of different forms of outdoor sports but all

of the country lends itself to hiking. Among the first things that hikers will unconsciously enjoy will be the beauty of the scenery, the hills and valleys the sky, the general color scheme and the enchantment of distance. Then will come the observance of detail in the trees, the flowers, berries, birds and their songs, the brooks and their exposition of geology and in all the gladness of feeling the soft earth under foot.

Anybody can hike. It does not require an elaborate outfit in the line of wearing apparel or other equipment. Anything you have goes into the outfit, especially at first, until you see how you like it. Uncle Sam has furnished many a man with the proper hiking costume during the last two years. And many a woman now has an old suit on hand cut on military lines, just the thing for the hike.

The best clothing for hiking is the army uniform or the type worn by hunters, which should consist of a lightweight woolen shirt, riding breeches, puttees, waterproof shoes, a sleeveless sweater, mackinaw and cap. Underwear, as well as the outer clothing, are regulated by the seasons. For the woman, a middy blouse, wide corduroy skirt, high shoes with low heels, sport coat and the overseas type of cap. Do not wear rubber soled canvas shoes. Rather wear good stout leather shoes with rubber heels.

NOW a hike is no hike at all unless at least one meal is cooked outdoors.

So we are ready for equipment. The best carry-all is the light pack or rucksack. This is carried on the back by means of shoulder straps. It is purchasable in almost any department or sportings goods store but is very easily made at home. A continuous strip of light weight khaki drill, 18 in. wide when stitched together will form front, bot-



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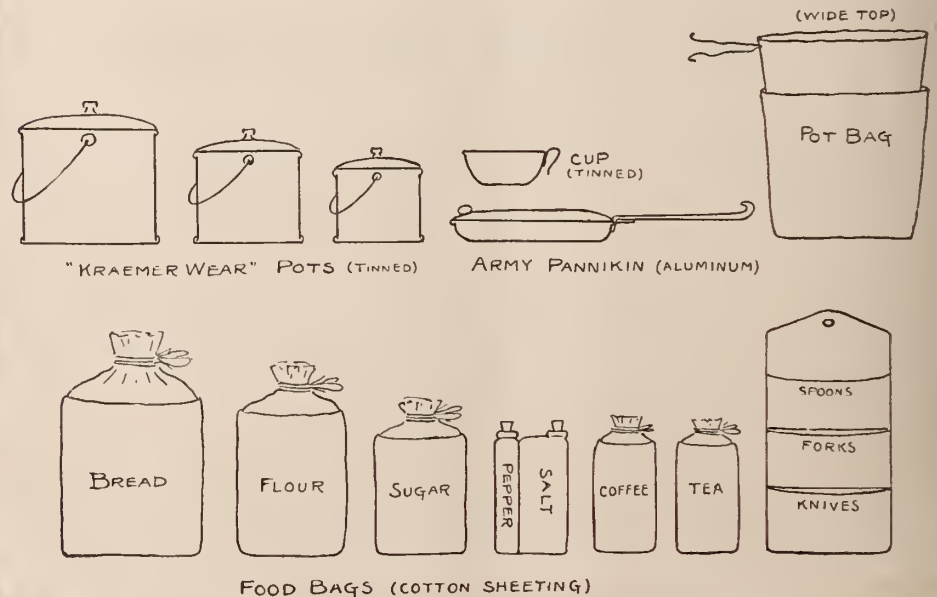
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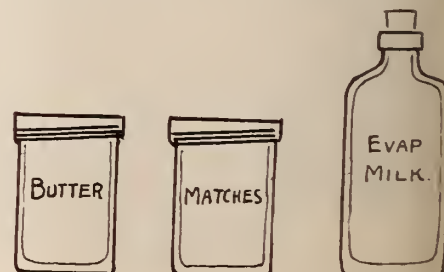
tom, back and cover flap. Two webb belts, such as are worn by the soldiers, when fastened at one point in the middle of the top of the back and the two lower opposite points of the bottom form the shoulder straps. Tie strings will hold the flap in front. The pack sack can be made as finely as you wish it, with inserted sides, taped edges, outside pockets and adjustable straps. Everything in hiking is a matter of individual taste. Hiking, as well as all of the outdoor sports, exercises one's individuality.

Into this pack may go whatever pots and utensils you may care to borrow from the kitchen. Just take the things you would absolutely need, such as coffee pot, extra small pot, sauce pan, fry pan, cups, plates, knives, forks and spoons. Anything will serve the purpose until you can't resist buying the proper outfit. And the latter is inexpensive too.


Let us open the pack sack in the corner yonder. It belongs to a couple who spend every week-end out of doors. Here is a set of small food bags of various sizes according to the proportionate bulk of food stuffs. They resemble duffle bags in shape, with straight sides, inserted bottoms and throats with tie strings. They are made of closely woven, white cotton sheeting (balloon silk) and are neatly labeled with the name of the ingredient. The salt and pepper bag is a two-in-one holder. It is stitched up the center in order to divide the condiments. The utensil bag is a series of three pockets, one each for knives, spoons and forks, with pot lifter, can opener, etc., divided among the rest. This bag is rolled and tied. Here is a bag, shaped like a large envelope, containing maps, note books, pencils, etc. Another small but elongated bag contains "fire dogs." These as well as the pots are "housed" in bags to prevent the pot black from smearing soot on everything else. The "fire dogs" are indispensable. These are made (as illustrated) of bands of soft iron 3/32 in. thick and 1/2 inch wide. The over-all length of each dog, folded, is 16 in. and the legs about 10 in. The "fire dogs" can be bought for a dollar or made for 25 cents.

The pot bag contains three bail-handled pails together with two cups, all nesting inside the largest pail which is nine inches in diameter and eight inches high. The pots are of heavy block retinned steel but light in weight. These are found in the kitchenware section of any department store and are known as "Kraemer wear." One of the smaller pots can be used for either tea or coffee. No spout is necessary.


While the inside of the pots should be kept spotlessly clean, it is useless to try



Containers for some essentials



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**Charles Cottar's Faith
in the
.250-3000 Savage**

YOU know what the gorilla is—the huge, silent uncanny man-monkey who glides through the dark, tangled African jungle as swiftly and easily as a shadow. You know that gun barrels have been bent by his black, hairy, wire-sinewed fingers—have been crushed by his ghastly, protruding fangs. You know his supernatural vitality, his fiendish intelligence and his horrible vindictiveness when attacked. Even the lion fears him. He's the most unnerving problem a hunter can face.


Why was it that when Charles Cottar, the experienced American big-game hunter, tracked the gorilla through the dense, tropical East African bush, the rifle he deliberately selected from his arsenal for this nerve-straining, hair-raising, desperate work, was his .250-3000 Savage? Think it over. And remember that this same 6-shot repeater weighs only 7 pounds—that it has a point-blank range of over 300 yards—that it is accurate enough to make "possibles" at 800 yards and that it hardly kicks at all. See it at your dealers; get the "feel" of it in your own hands or write us for particulars.

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Abbey & Imbrie



The WINNERS

It is a great pleasure for Abbey & Imbrie to announce that out of 2,894 manuscripts submitted to their Fish Story Contest, the following were successful in earning awards:—

1st PRIZE—A. B. Cunningham, Burton, Ohio.
 2nd PRIZE—Carl D. Schunk, 218 Albe-marle Rd., Brooklyn, N. Y.
 3rd PRIZE—James C. Maxwell, 394 Massachusetts Ave., Boston, Mass.
 4th PRIZE—C. W. Mills, Sodus, N. Y.
 5th PRIZE—M. M. Scheid, M.D., Rosendale, Wis.
 6th PRIZE—Paul Fugler, 237 Talbot Ave., Dorchester, Mass.
 7th PRIZE—George V. Triplett, 1540 Frederica St., Owensboro, Ky.
 8th PRIZE—Robert B. Peck, 39 Cambridge Place, Brooklyn, N. Y.
 9th PRIZE—Thos. McB. Fast, Hotel Selby, Toronto, Ontario, Canada.
 10th PRIZE—Dr. A. K. P. Harvey, 1025 15th St., N. W., Washington, D. C.
 11th PRIZE—Esther E. Shoemaker, Vine-land, N. J.
 12th PRIZE—Frederick L. Coe, 122 Howe St., New Haven, Conn.
 13th PRIZE—Mrs. Minnie E. Brown, 704 Fifth Ave., East Williston, N. D.

So many stories of merit were received that the judges have made twelve additional awards of \$5.00 each to the following contestants:—

Alexander Yearly, 3rd, 5 Builders Exchange Bldg., Baltimore, Md.
 Robert Ammerman, 430 So. 2nd St., West, Missoula, Mont.
 Lt. Ory J. Armstrong, Co. A, 127th Inf., A. P. O. 734, A. E. F.
 R. W. Swearingen, Lt. Pay Corps, U. S. N., P. O. Box 871, Charleston, S. C.
 Orin P. Thorson, Box 396, Madison, Minn.
 E. F. Lapham, 410-418 So. Michigan Blvd., Chicago, Ill.
 E. A. Brininstool, 3010 Hobart Blvd., Los Angeles, Cal.
 John Gill, Third and Adler St., Portland, Ore.
 P. C. Kuegle, Buckeye Land Co., Youngstown, O.
 Hubert C. Norton, 83 Pearl St., New Haven, Conn.
 L. J. Tansey, 113 No. St. Peter St., South Bend, Ind.
 Emery A. Peffley, Thornton, Ark.

Then, there were those good sportsmen who almost landed a prize. To them we wish to say "Tough luck!" and express our admiration for the fine efforts they made, knowing at the same time that these contributors will view their good though losing fight with the same philosophy that comes to their comfort when a "big one" gets away.

And to all of the 2,894 contributors goes our deep appreciation of their inspiring, wholesome angling spirit. Oh! it's a great game!

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to keep the smoke-black off the outside and a good reason for leaving it on is that it prevents rust. In the pot bag, also, are two army pannikins made of aluminum. These are used for fry pan and platter, while the covers are used for side dishes. The pannikins have long handles and hinges which clamp over the covers, making fine receptacles for carrying meat while on the hike. During dinner, the panniken holds your "platter luncheon" which, if it becomes at all cooled, can be placed back on the "fire dogs" for a warming. Pannikins can be bought new or in stores carrying reclaimed army goods.

Other necessary articles of the pack sack are butter jar and match jar, both with screw tops such as salad dressing jars. A small bottle for evaporated cream which is a better container than the can because the former will not spill. A cake of soap, a dish mop, dish towel, and hand towel are requisites.

The pack sack before us also contains a folding reflector oven and pan, a small poncho for a ground spread while eating, extra pairs of woolen socks, a guarded hatchet, flash light, compass, camera fishing rod and its outfit, a small bottle of iodine and a roll of bandage.

The food to be carried will be suggested by the following menus which call for fresh vegetables in preference to canned:

Steak, boiled potatoes, peas, bread and butter, jam, fruit, cream, and coffee.

Chops, baked potatoes, spaghetti with tomato sauce, rolls, cake, fruit, tea.

Ham, beans, biscuits, marmalade, apple sauce, doughnuts, coffee.

Then there are fresh fish, chicken, Irish stew, omelettes, in fact everything that you care to have at home you will find a pleasure to prepare in the open.

ONE of the most important things about cooking outdoors is the fire and the most essential note on the fire is to keep it small and hot. Start by driving the "fire dogs" into the ground with a space between of about three inches at one end and five at the other. Scrape away carefully for a radius of three or four feet all dry grass and leaves so as to prevent a spreading fire. Pile dry leaves about the fire irons but no higher than the bars which will be but five inches off the ground. Distribute over the leaves fine tinder or dead twigs which you will find abundant on the forest floor.

You will gradually feed larger wood on the fire but not exceeding an inch in diameter. When the fire is assured and a fairly hot bed of coals is laid, which

(CONTINUED ON PAGE 371)

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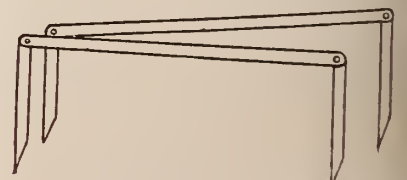
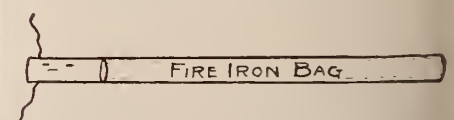
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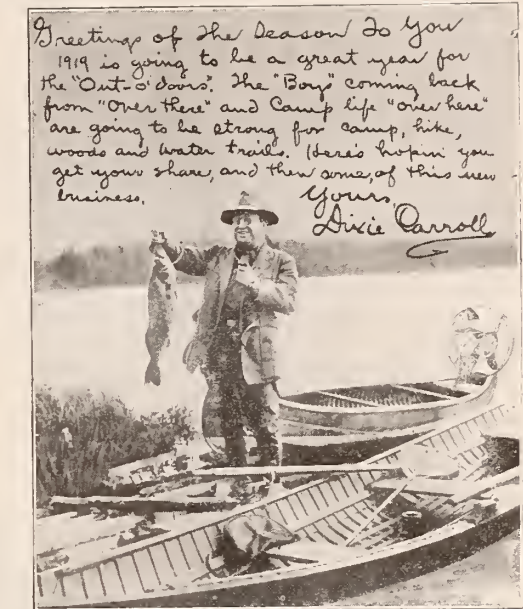
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Fourth, you are independent of piers and docks for landing—just run her nose right up on the beach.



Greetings of the Season to you
1919 is going to be a great year for the "Out- o' doors". The "Boy" coming back from "Over there" and Camp life "over here" are going to be strong for camp, hike, woods and water trails. (Here's hoping you get your share, and then some, of this new business.)
Yours,
Dixie Carroll

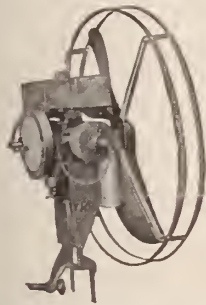
Fifth, when fishing you can navigate shallow streams without roiling up the water.

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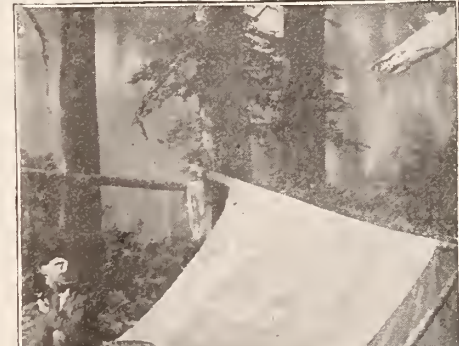
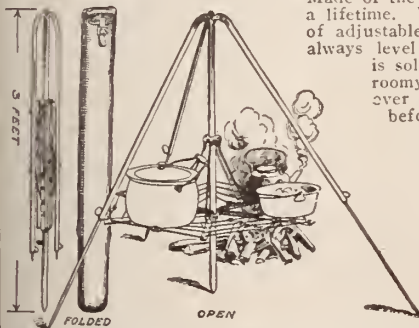
Camping is not camping without a camp fire. A camp stove is not a perfect camp stove that won't work over any camp fire. You just can't imagine how pleasant it is to cook over the good old camp fire until you have tried the Umbrella Camp Stove, which has been so scientifically designed as to overcome such objections as burning of the fish, tipping over the coffee, scalding the hands, scorching the face and exposing of the clothing to fire.

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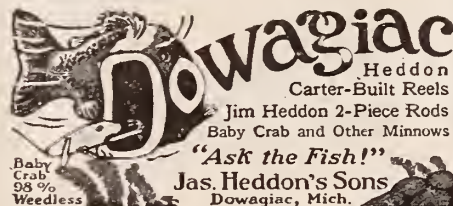
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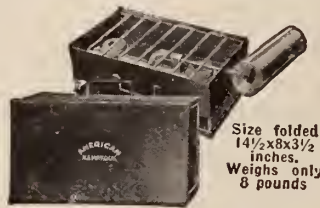
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14 1/2 x 8 x 3 1/2
inches.
Weights only
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ANGLING FOR THE GAMEY BASS

(CONTINUED FROM PAGE 330)

this kind, you will be able to guide the fish toward some more open spot where it will have a chance to sample what you have in the way of delicacies. Any way you fix it there will be cases that, no matter how wise in their ways you might be, you will receive a setback. That is the very thing which goes far toward making the black bass one of the most aristocratic fish of the inland waters. He possesses the tact of devising on the moment some new trick that places his adversary in the light of ridicule and humiliation.

HOOKING your fish, in my own personal estimation, is more than three-fourths of the game. But even considering it so, unless care and coolness figures a large part in the handling of a well-hooked fish, the preliminary work has all been for naught. There is one thing certain: unless one has his lesson well learned old daddy bass will show the careless, excitable angler some tricks that in a mighty short time will leave nothing but the rod. A broken end and, prominent or shaded (that depends on who's along) exclamation points, unloosening themselves around there.

Keep the slack well up on your fish at all times; this does not necessarily mean to anchor the fish with main strength to the shore and have him, if he should happen to be a giant, smash things into smithereens, but by that I suggest keeping up all the loose parts; let him feel that he has somebody at the cork end of the outfit. Then if he insists on taking the thing into extra rounds, watch him closely and when you feel that there is more strain on the rod than should be expected of a fragile tool, as it should be, feed him line, but in doing this always keep in mind the fact that doubtless he has a better understanding of what might be located there below the surface than you. Thereby guard against any contiguity with a submerged villain and a snag or boulder.

Guide your fish by raising or lowering the tip and by keeping the rod swinging in sympathy with his course. It will be found no very difficult feat to swing the rascal clear of the obstructions nearest you; never fear about getting ahead of him if he possesses the speed of the average black beauty.

A landing net is a good addition to the angler's possessions; although, personally, I very rarely use one, unless I expect to hear from a "muskie" or wall eye. They are inconvenient and make knocking about through the brushy tangles, that are met with so often along the bass streams, a sight more difficult as a general thing. Even from a boat I rarely ever use one for bass, although I am not averse to them, generally speaking.

I mostly play my fish until he condescends to strike his colors for a complete surrender. Then I gradually work him in by slowly elevating the tip of the rod and releasing just enough line even from beneath my thumb to swing him in.

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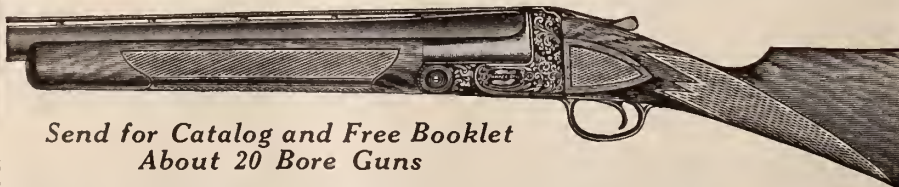
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This takes practically all the strain off the tip and distributes it over the entire rod, and brings him to within easy reach. By holding a taut line I keep his head high out of the water. If a poor hold is noticed then use extreme care to not give one fraction of advantage to your fish.

As a usual thing the fish comes in as gently as a lamb and by reaching down insert your thumb and first finger in his mouth, grasp him firmly by the lower part of the mouth, that is, inside, and lift him quietly and gently to safety; usually they come in to the creel or boat without a struggle.

It is a good idea, when fishing a stream, if you are not already familiar with its pools, to observe closely and find out where the big fellows make their headquarters. I have found this to be the most successful way of saving oneself a vast amount of fruitless beating about over barren water. No matter how plentiful a stream might be populated with bass, there are certain parts that will not yield fish. One thing, though, I have found in my bass fishing experiences, and that is this: Those places where I see the golden gleam of a curving beauty flash upward in the sunlight of a beautiful summer day, there will I place my active run chub with a tender care that scarcely breaks the mirror of the quiet stream's current. And there, sooner or later, I will test my abilities against the gamest old aristocrat of the singing waters.

THE WAYS OF ANGLERS

(CONTINUED FROM PAGE 356)

not go amiss. Experience is the only teacher from whom the trick can be learned, and oftentimes the pupil will be a good while in getting his lesson so thoroughly as to render success more probable than failure. Even after he thinks he knows all there is about it, repeated losses of good fish may demonstrate the fact that he has yet much to learn. There is something about the wrist knack which seems to baffle an absolutely lucid description, and, as in the case with wing-shooting, the batting of a curved ball or learning to ride a bicycle, only practice will bring an understanding. A short, quick movement of the wrist, very little force being exercised, is usually all that is necessary to hook a trout. Circumstances must regulate the action, however, for if one is using a long line or large hooks, or if the trout is a big one, somewhat more force is desirable than when the line is short, the hooks small and the fish under half a pound in weight. It is a good idea to make it a rule never to strike hard enough to lift a fish from the water even though it proves to be under the six-inch limit. The importance of quickness cannot be too strongly emphasized. When once acquired, the exercise of the wrist knack calls for neither conscious thought nor effort, the act being as involuntary as that of walking or breathing. Thus the correct ways of anglers are obtained and by much practice the fisherman gradually comes into his own.

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NOTES ON THE WET FLY

(CONTINUED FROM PAGE 360)

knot may engage in the ring at the tip of the rod.

The leader should be of heavy gut where the line is attached, and should be tapered to the single fly which is used, and in no case should more than one fly be presented. With a tapered leader and one fly the lightest of casts can be achieved, and a fly that falls lightly must be managed if many trout are to be taken in clear and low water. "Snelled" flies, as they are sometimes called, should never be used. Loops are very conspicuous, and particularly when a wet fly is cast, for when immersed a gut loop carries with it a flat bubble of air, which shines below the surface like a small mirror. "Eyed" flies are advocated, and should be attached to the delicate, last strand of the leader with either the "jam knot" or the "turtle knot." For myself, I use a "double jam knot," taking two turns instead of one of the slender gut, one turn being the procedure when tying the ordinary or single jam knot.

As to flies, the wet fly fisherman need not carry a pint of varieties. The following list is known to be excellent, and in most waters will be found to be satisfactorily complete. First, and on a trout catching pinnacle, is the Coachman, plain, not with a band of red in the body. To this wonderful wet fly lure, the following should be added: Cahill, Queen of the Water, Beaverkill, Soldier Palmer, Cow Dung, Whirling Dun, and Grannom. For ordinary waters and clear streams these flies should be tied on number ten and number twelve hooks. And for late evening wet fly fishing, a Parmacheene Belle should be at hand, the latter tied on number eight or even as large as a number six hook.

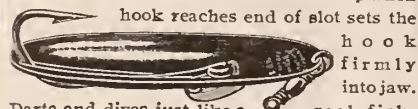
As only one fly is used, it is sometimes necessary to try out the entire list given, one at a time, but if trout are taking any insect food whatever, it is believed that one of the list will prove successful.

In very low and clear water there are great advantages in the use of the wet fly. For when the water is very low and clear, in times of continued drought, trout frequently do not break the surface, but will take a sunken fly. Under such conditions the most stealthy approach upstream should be made, with absolutely no sloshing of feet, and, indeed, no unnecessary movement whatever. Frequently the very tail of a pool will give the best sport of the day, but sometimes the fish are found in the rapid water, in the riffles, and will not notice a fly in the still reaches. Over-long casts should seldom be attempted, for the important thing, the thing which must be attained to bring a heavy creel from low water, after the stealthy approach, is dropping the fly so lightly that it makes no disturbance whatever. This can not be achieved with an over-long line, and in upstream wet fly fishing the stealthy angler will sometimes take a large trout within twenty or less feet of his stand.

If at the tail and the middle of a flat pool not a trout is taken, the wet

The Spoon That Hooks'em Every Time!

The position of the HOOK is the reason. Hook releases when fish strikes and sudden stop when hook reaches end of slot sets the



hook firmly into jaw. Darts and dives just like a real fish. Catches more than any other spoon or wooden minnow. Great for all game fish such as Black Bass, Trout, Musky, Pike, Salmon, Cod, Tarpon, etc. Made in six sizes. Ask your dealer for

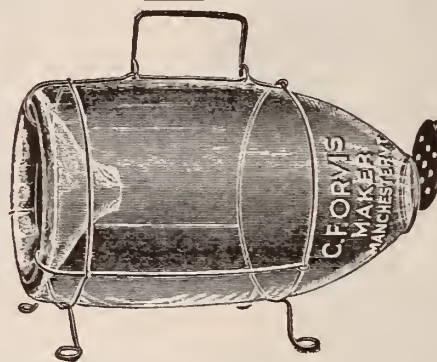
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Fully Guaranteed. Catalog free.

Finishes: SILVER—SILVER AND COPPER—BRASS

Length: 1½" 2¼" 2¾" 3¼" 4½" 5½"
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THE ORVIS MINNOW TRAP

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fitted to your .22 or .22 high power rifle. It deadens the report noise, reduces the recoil, and steadies your aim. Direct from Dealer or Factory, \$5.00.

Write for Free Book of Stories.

Maxim Silencer Co. 69 Homestead Ave., Hartford, Conn.

Send for it



During the WAR

our Hatchery received little attention and most Sportsmen were thinking of other things than fishing; but now we are anticipating a demand for stocking and can offer some splendid fry for spring delivery, as well as a limited number of larger brook and rainbow trout. Eyed eggs of both during the season. Correspondence invited.

PLYMOUTH ROCK TROUT CO.,

Colburn C. Wood, Supt. Plymouth, Mass.

Land 'em 2 at a Time
Dive Carroll says: For general fishing, still fishing & general tidal fishing, either surface or bottom as well as surf casting it is a handy working little piece of tackle.
25¢ POSTPAID
ONLY DIRECT - PULL SPREADER ON THE MARKET
Schilling's INSURE YOUR LUCK BY SENDING 2 BITS TO-DAY
wivel spreader HENRY SCHILLING 1732 HARTMAN ST. BROOKLYN, N.Y.

fly fisherman should continue his quiet upstream progress, with the very minimum of disturbance of the water, until he can cast with a short line into the swirls at the head of the pool. Here he will frequently meet with great success. And it seems to me that it is not unlikely that the fish have been disturbed, but only slightly, by the careful approach of the angler and have moved to the fancied security of the rough water at the head of the pool, where, if the wet fly fisherman's coming is not advertised, he will take several trout and those the best of the stream.

Late in July, last summer, with a stream very low and absolutely clear, I fished a pool on the upper Neversink River. At the tail I took nothing, but I saw several good fish move gently upstream. In the middle of the pool I took a fine native, and continued upward, and so slowly that I came to rest for long minutes every twenty feet or so. Finally, I was within short casting distance of the rough water at the upper end. Here, before casting, I waited for what seemed a considerable time, but was probably not longer than five minutes. Then, one after another, I took five large trout, all within twenty feet or so of where I stood motionless. All were played as quietly as possible, and netted without a splash, and after netting each fish I "rested the pool" for some minutes.

For a change from the endless arm work of dry fly casting, wet fly fishing, if rightly practiced, will be found quite as productive in results as the more advertised mode. Indeed, with very low water, the wet fly will achieve victories which I doubt can be achieved with his dry and sporty mate.

ON THE ONE DAY HIKE

(CONTINUED FROM PAGE 366)

is only a matter of minutes, you will distribute the pots of foods along the irons proceeding as to the time required for various foods, so that all will be finished about the same time.

A black log or stone will be needed and the point at which this is placed will be determined by the direction and velocity of the breeze. The place for the spread is a diagonal off the fire from the wind, not to windward or leeward or you will draw smoke from the fire. Invariably you will pitch your camp in a woodland gully near a brook in order to secure water. There is no cause for alarm from woodland streams in spring and fall for in these seasons they are always running fresh.

In summer, however, if you do not feel quite sure of this source of water supply, you had better borrow from the nearest farm house. Since all of the water used in cooking is brought to a boil, there should be absolutely no cause for alarm.

To hike in the country, you will have to get there first. Do not try to walk there as it is a waste of time. Go by means of automobile traction or steam railroad. Take the nearest car from your home or



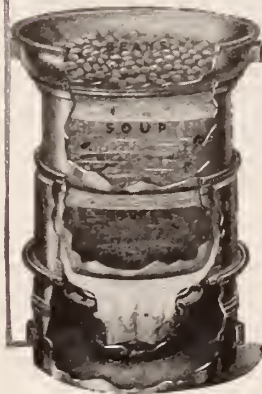
All aboard! For all outdoors

YOU'LL relish the "eats" in the open air. No dolling up for dinner table, no long waiting for meals, no tips. Carry Theroz Fuel and Theroz Blue Flame Stove under your car seat, stop anywhere on the road. Here's a great, ready-made "fire" for the camper and fisherman. He knows that cooking a meal with wet paper, wet sticks and kerosene is no joke.

At the strike of a match, Theroz Fuel gives intense, clean, safe heat. Theroz stays solid while burning—no danger even if it does spill. Can't smoke, soot or smell. The Government bought 11,000,000 cans of Theroz for the doughboys "over there."



Theroz Blue Flame Stove



solves every cooking need—indoors and outdoors. Two burners give cooking capacity for a whole party. It folds up and can be carried as easily as a small suit case. Holds dishes, provisions, etc.

THEROZ MESS KIT proved its merit in France as a pocket kitchen. It burns Theroz Fuel in cube form. Will heat coffee, soup, beans or similar food—enough for two people—in a few minutes.

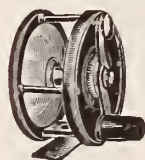
You will find Theroz Fuel and Appliances at drug, hardware, sporting goods and department stores or we will send them direct to you.

Write for booklets and prices.

THE THEROZ COMPANY
Woolworth Building New York

FISHING TACKLE

Deal Direct With the Manufacturer



If you are satisfied with any old kind of tackle don't come to us. You can pick up that kind anywhere for a song. But, if you really want Tackle that is worth while, come here and you will find it.

We never sacrifice quality to make a low price, neither do we ever use quality as an excuse for a high price.

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Fish, Hunt, Work, or Sleep in comfort the Ha - Ha Head Protector

will absolutely protect you. Made of brass wire gauze. Defies mosquitoes and all insects. Fits any hat, weighs 3 ozs.; goes in vest pocket.

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A well made serviceable article guaranteed, \$2.25 will bring you one. Parcel Post insured. Other countries, \$2.75. Made with or without pipe inlet. Send for one today.

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Will H. Dilg says:—

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Carefully and correctly made on model perfect turn down eyed hollow-point hooks with patented attachment which prevents the bodies from slipping or twisting and put up on card stamped

MCCARTHY PATENT
NONE OTHER ARE GENUINE

For Bass, Pike and Salmon in 12 standard patterns, each 50c.; per doz. \$5.50

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"CALLMAC" Knotless Leaders

Med. Bass, 2 yards with loop at each end, each, 50c
Med. Bass, 1 yard with loop at each end, each.. 30c
Extra Heavy Bass, 2 yards loop at each end, each 65c
Extra Heavy Bass, 1 yard loop at each end, each 40c

The correct thing for use with the bugs.

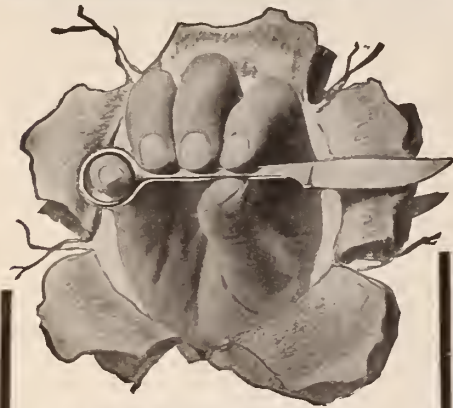
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THE FLY ROD WIGGLER is positively the greatest fish getter ever used on a fly rod. Handles easily on any ordinary fly rod. Has the slow wriggling zig zag movement of a crippled minnow. Great for large and small mouth bass, large trout, pike, and pickerel. Exquisitely finished in Silver Shiner, Red Side Minnow, Yellow Perch, Red Head, etc. Two sizes, 1 3/4 and 2 1/2 in. Can be used on bait casting rods by adding small sinker. Price each 50c. Four in compartment Box \$2.00. Send stamp for catalog of Baits, Flies, Lines, Hooks, etc. W. J. Jamison Co., Dept. S, 736 S. California Ave., Chicago, Ill



MARBLE'S NEW TROUT KNIFE

is the ideal knife for dressing trout and other fish. Forged from finest cutlery steel. Always open. Easily cleaned. Total length, 5 3/8 inches. Weighs only 1 ounce, including metal-bound sheath. Price **55c.**



Marble's Clincher Gaff is quicker and surer than a landing net. Fish can't slip thru nor twist out. Holds any size from 1/2 to 20 lbs. No steel trap features—does not rip, tear or make ugly holes. Only humane gaff on the market. Every fisherman needs one. Made of steel, heavily nickled. Price **\$1.10.**

If your dealer can't supply YOU order direct. WRITE FOR COMPLETE CATALOG of Marble's famous hunting knives, safety axes, gun tools and other sportsmen's specialties.

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FITS THE LEG, VERY SMART, adds to APPEARANCE OF EVERY COSTUME. Equally adapted to wear of men and women. ALL WOOL, FULLY SHAPED, REINFORCED AT POINT OF WEAR. ASK TO SEE THE HOOK, MAKES IT STAY PUT. Colors, Olive Drab, Marine Shade, Cadet and Navy Blue.

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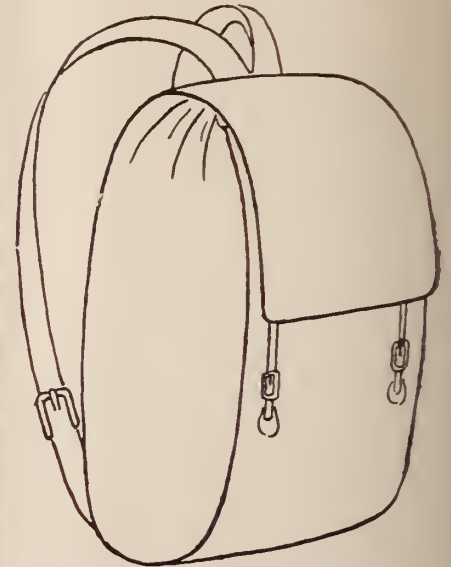
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9 East 40th Street New York City

club and go to the end of the line or perhaps take a railroad train out to a convenient station, then hike from there to your heart's content. Study your local maps, geologic survey preferred. Note



The Carry-All or Ruck-Sack

the possibilities at the end of each trolley line. You will find there is plenty of exploring to be done right in your own community.

For quite awhile you will start out on these trips with the conscious feeling that you are being observed by everyone with pity. You are observed all right but with an envious desire to join in the fun. And when you have the idea so thoroughly imbued in your system, entice others to go out with you.

"Wherefore, let us be thankful that there are still thousands of cool, green nooks beside crystal springs, where the weary soul may hide for a time, away from debts, duns and deviltries, and awhile commune with nature in her undress."

NATURE'S EGRET AVIARY

(CONTINUED FROM PAGE 335)

"Tomorrow," said Mr. King, "we will take the tender and go up to famous old Fort Harrell. There is a real expedition for you, John. It was built, with its stern log stockades, immediately after the Seminole Wars. Soldiers were stationed there to keep the Indians from coming out. I have heard, from Miami chiefs, that there is much to see. Time has not disintegrated it."

Mr. King was also thinking of another side of the trip. Across one of the passages, in the direction of Alligator Bay, he had noted trees cut in such a way that they fell across the stream. A barrier had been constructed to keep small boats from navigating those streams.

And he knew that they led to egret rookeries.

They must cut away these barriers and investigate!

(TO BE CONTINUED)

SHOT GUN EVOLUTION

(CONTINUED FROM PAGE 354)

The charge of condensed powder, say Ballistite, requisite to give the desired velocity, the necessary wads, and a charge of one ounce of shot will, in .69 calibre, admit of a cartridge less than 2 inches long by .7 inches in diameter, that is to say, some 20 per cent shorter powder to those adapted to utilizing the possibilities of smokeless powders.

Such a cartridge will not only be more economical in cost, but what is of much greater importance, lends itself to the construction of a very much handier and lighter gun, in which the repeating mechanism need no longer be the source of clumsiness and general inconvenience.

A gun to handle a cartridge of these dimensions can be made with a box magazine by slightly modifying several existing rifle actions, and need not weigh more than 6¼ pounds.

It is not intended to suggest that one ounce of shot constitutes as powerful a load as 1¼ ounces, but if one ounce is sufficient for general sporting purposes and a handier and more convenient gun is our primary object, a one-ounce charge, in the cartridge described, renders the construction of such a gun possible.

In the days when gun and cartridge were separate industries the production of a cartridge for a non-existent gun or vice versa, did not present an attractive commercial proposition, but today, with these functions combined in several firms, this objection has lost force.

The firm which today produces a gun and cartridge having greater shooting power, bulk for bulk and weight for weight than any other gun and cartridge, will possess a novelty having very attractive selling prospects; moreover, it will have taken the first step in the logical development of the shotgun by making the first radical departure from stabilized dimensions designed for black powder to those adapted to utilizing the possibilities of smokeless powders.

One example in this direction and the field will be open for further development of smokeless powders. Relieved from the thralldom of confinement to chambers of dimensions never designed for it, smokeless powder makers will be free to delve in fields in which may be discovered possibilities yet undreamed of.

WATSON THE OUTLAW

(CONTINUED FROM PAGE 353)

murders he did. I know the Watson family in South Carolina and there are none who stand higher than they.

There are still, in that Everglade country, men who left civilization and settled there, who might do murder if they were questioned too closely as to their past lives. I would not hesitate to hire one of them as a guide and go any place with him, for I would not question any one down there now. I know they are suspicious, but when they know you are not spying on them they will stick to you.

M. B. HERLONG, M.D., Florida.



"CURTINMADE" CAMPING TENTS

When you buy one the comfort of your camping trip is assured.

We carry a full stock of the popular sizes in Wall, Wedge and Pyramidal tents, and are also prepared to make to order any style or size desired. Workmanship and material in "CURTIN-MADE" tents cannot be excelled.

Write for Catalogue

JOHN CURTIN CORP.

Established 1853

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Please Send Catalogue and Information About Tents.

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John Curtin Corp., Dept.H., 48 Front Street, New York

NOTE—If possible state size and style in which interested.



Your Lunch Tastes Better

ON picnics, fishing or hunting trips—or whatever the outing may be—your food and beverages are kept fresh and cool if carried in a

Hawkeye PICNIC REFRIGERATOR

Of durable, woven reed, metal lined. Small ice compartment keeps contents cool 36 hours. Roomy, convenient and easily carried. Made in several sizes at most moderate prices.

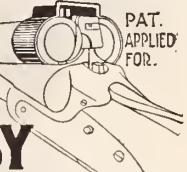
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A booklet of tasty menus and recipes for sport and pleasure outings. Also tells about our 30 day free trial offer.

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WING SHOOTING MADE EASY



The Wilbur shotgun peep sight will revolutionize wing shooting; no excuse for missing; game birds or clay birds. Patented and perfected by an old trap and field shooter. Teaches the art of wing shooting; will increase the score of the trap shooter; corrects the faults of old shooters; shows how to lead your birds; compels proper handling of gun; puts the shooter down on his gun where he belongs; proves the correct fitting of your gun.

Made of blued steel, clamps instantly and rigidly on breech of barrels. Fast enough for use in snap shooting. Has two openings with center post for alignment with ordinary sight at end of barrels.

Any object seen by the shooter through this sight when trigger is pulled, is DEAD—as such object must be at the time in shot pattern when gun is discharged. On quartering birds lead is shown absolutely—NO GUESS WORK.

MADE IN 12 and 20-GAUGE ONLY. Not made for single-barrel or pump guns.

Price, postpaid, \$2.50, with full instructions in the art of wing shooting.

Write for "Treatise Wing Shooting Made Easy."

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DEATH

And a hot spot in the frying pan is SURELY awaiting the fish that strikes or bites at your bait be it natural or artificial if your hooks are honed to a super-fine needle-point with a PERFECTION Trade-mark HOOK-HONE.



As NECESSARY TO SUCCESSFUL fishing as the hook and line itself. Made of CARBORUNDUM, the hardest and sharpest abrasive material known; practically indestructible; length, 4 inches; absolutely guaranteed to put a super-fine perfect point on all sizes and shapes of hooks; it prevents 90 per cent of the lost strikes; you can buy a cheaper sharpener, but you cannot compare them, with the years of service, the material, design or the perfect work of the HOOK-HONE. "Caution" new hooks do not have real points; get your HOOK-HONE today and give—EVERY HOOK OLD OR NEW—a few strokes before you use it, then you can play your fish with the satisfaction of knowing that he is securely hooked and is your meat, your HOOK-HONE will mean every strike and every bite a sure catch, it will be ten years' insurance against losing those big ones, it is the real secret of SUCCESSFUL FISHING.

Price, 75c., postpaid. Leather case, 25c., extra.

Dealers: Stock the HOOK-HONE at once.

Send for particulars.

THE COLUMBUS SPECIALTY CO., COLUMBUS, O.
Department M.



THE ELEMENTS OF TROUT FISHING

(CONTINUED FROM PAGE 343)

act on it, producing a rippling motion to it that gives it an apparent lifelike-ness.

This, I firmly believe, is why the trout like it. You get your finest trout on this lure. I did not pick this up out of a book, nor did anyone give it to me. I figured simply that if pork rind is so excellent for bass why not for trout.

I experimented first with quite a thick strip. Later I struck upon using a thin strip and found that it quivered, with undulating motion in the water. Right there I solved something that I have not till now given out to print.

FOR all my trout fishing, one form or another, I use the automatic reel.

I found the single-action reel limited, in not being able to take in the line fast enough when it accumulated. I thus lost many good trout. The automatic solved the problem. Immediately the trout is on, one takes in line and, carefully watching the fight, presses the trigger. The spool revolves and instantly eats up the slack.

The automatic is so convenient, so utterly reliable that I would be lost now without it. In most all articles, and books on trout fishing it has been said that the reel merely serves to hold the line. This is untrue. When slack occurs you have to take it up, and as between the old form, and the automatic form I give the palm to the latter appliance. However, one automatic is in use where five single action reels are a part of an angler's paraphenalia.

In the question of leaders I will say that I no longer use the common gut variety. I use the Telerana Nova exclusively. I would not be without it; it is one of the most ingenious of modern tackle inventions, and for durability, invisibility in the water and any number of other points, it far excells.

The six-foot length is the best. I have no time for the nine-foot leader. I see no reason for it.

For a line, the tapered-enameled one is the best on all points. This is not to say that the level-calibered line is not also good, but the tapered line is far the better. It forms a more inconspicuous meeting with the leader; and by the use of it you improve your casting. Its strength is of a good order, and with care in attending to it, will last a long time. In the matter of the net it should be of the collapsible form, easily set up

"Back Her Up, Son—Quick!"

LINE snagged in the weeds—there's where Evinrude saves the day!

A twist of the handle instantly reverses the propeller—from "full speed ahead" you at once move backward. Quicker than you could do it with oars. This flexibility is one of many features of the

EVINRUDE

DETACHABLE MOTOR FOR WATERCRAFT

This motor furnishes smooth, dependable and plentiful power for rowboats, canoes, skiffs and other craft. It's great for hunting, fishing, boating—gets you there and back quickly with no rowing.

Nearly 100,000 in use. The Evinrude is used by twenty-five Governments.

The Evinrude has built-in fly-wheel type magneto and automatic reverse. Special method of balancing practically eliminates vibration.

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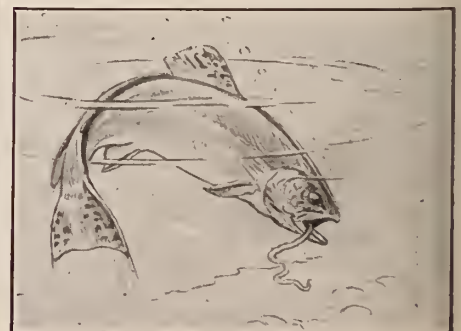
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ANY puncture or leak in boat, canoe or flying boat can be repaired in five minutes. It is as valuable to a canoeist as a repair kit to a bicyclist or automobilist. It is a Johnny-on-the-spot article that no boatman should be without. It does not dry up nor deteriorate in the can, but will be found equally as ready for use in ten years as today. Friction top emergency cans, 35 cents each; by mail, 40 cents each. Canada, 47 cents. Send for new booklet "Marine Glue—What to Use and How to Use It" and "How to Make Your Boat Leakproof." At all Hardware and Sporting Goods Houses.
L. W. FERDINAND & CO., 152 Kneeland Street, Boston, Mass., U. S. A.



and taken down. It should have the elastic loop to it which goes over the shoulder. When a fish is netted and near to hand, you can merely stretch the elastic cord and net him.

Boots are a practical necessity, but these should not be of the heavy type, but rather of the lightweight sort. The mere heft of the heavy hip boots is a sufficient reason for neglecting to recommend them. Soft hobs on the bottom of boots are a good thing but not necessary. If one pushes and feels his way along a stream, even over slippery rocks, he will not fall. But there always is the chance that he will.

Another good thing in trout fishing is the fly-book. A small one is comparatively inexpensive and since you will use only some of the best flies, and few in kinds, you do not need a large portfolio or suit case like some carry. Select the best flies you know of, and stock up on them rather than bring along a specimen of all you are wheedled into purchasing.

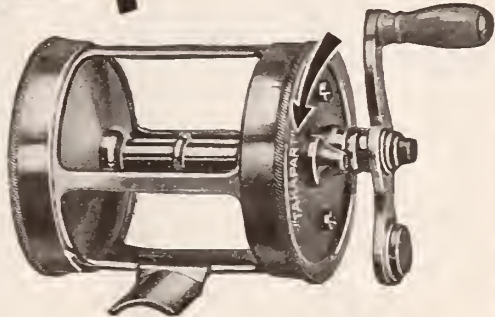
One of the crowning necessities in trout fishing is the creel. I see it sometimes mentioned in print to get a nine-pound creel. The simple fact of the matter is that every nine-pound creel I ever saw would hold about one-half of a good size rainbow. Why, its absurd! A nine-pound creel—good heavens, whoever first foisted a nine-pound creel on a credulous public. There we have it, just the same as manufacturers who put out 100-yard reels, when as a matter of common fact and knowledge they hold little more than half that amount. Of course, if your brook holds only fingerlings, or small chubs the nine-pound creel will suffice, but never where goodly fish are found. Rather try the 18-pound or 20 or 25-pound creel. You can hide away a couple of goodly fish in these.

There are some very fine and serviceable leather-bound creels on the market. They cost a little but are winners. Common wicker-work creels, however, are all right. Our best creels used to come from France, but since the war they have been hard to obtain. The French have, for centuries, been the best creel makers in the world. There is no doubt that more and more attention will be given this in the future, and on this continent, creels will be made as good as any ever produced elsewhere.

With the creel should come the straps, one with a canvas band on the left shoulder; while the buckle strap hooks on in back and connects in front. The right arm is thus free, and casting is greatly improved without the least detriment.

IN the matter of flies to use, there is always a need of conjecture and speculation attached. It is a subject unendingly dear to the heart. All the standard regulation flies, nevertheless, are without the so-called "exact imitation" form, being devoid of the gently upward curling and natural detached body; few can be said to imitate anything that resembles the daily food of the trout.

We must believe then that the fish take them out of adventure, and suddenly, the fly coming before them before they have time to study it. But for that matter they would hardly have time to



Takahart

—the
**Bait Casting Reel
with the
Five Points**

1. Strength
2. Simplicity
3. Compactness
4. Durability
5. Value

Point 2— Simplicity

Can be taken apart in a moment with your two hands—no tools. Every part easily cleaned, dried, oiled. A friction device for quick adjustment to prevent "Back Lash" on the rear plate. Handle may be placed in four different positions by single adjustment of head plate.

The strength on which you can rely, the simplicity which makes cleaning easy and prevents getting out of order, the compactness which gives $\frac{1}{4}$ greater line capacity for the size, the durability which keeps thousands in use after years of service, and a remarkably low price in view of its top-notch quality—all these features recommend the TAKAPART as the Bait Casting Reel for you.

\$6.60 War Tax included

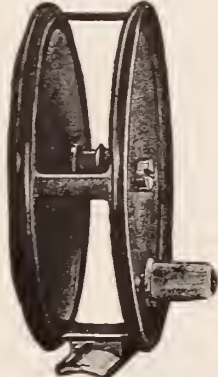
TRIPART Reel, the TAKAPART'S little brother, **\$5.50**, war tax included.

"Fisherman's luck" isn't ALL luck. Much of it is knowing how and buying right. Our booklet, "Fishing Reels," tells the secret of the biggest catches—what to use and how to use it.

Booklet, "Fishing Reels", sent on Request. Write For It.

All dealers handle these well known reels.

A. F. MEISSELBACH MFG. CO.
26 Prospect Street Newark, N. J.



**Rainbow Reel
for Fly Fishermen**

Made of special aluminum alloy, combining supreme strength with extreme lightness. In simplicity, design, construction, service, it is unexcelled by even the high-priced, imported kind.

Taken apart in two seconds. Fits the hand. Beautifully balanced. Handsomely finished—dull black or sand-blast.

Two Sizes	\$5.50	War Tax	included
	6.60		

35c Postpaid

For all lubrication and polishing around the house, in the tool shed or afield with gun or rod.

NYOIL

In the New Perfection Pocket Package

is a matchless combination. Sportsmen have known it for years. Dealers sell NYOIL at 15c. and 35c. Send us the name of a live one who doesn't sell NYOIL with other necessities for sportsmen and we will send you a dandy, handy new can (screw top and screw tip) containing $\frac{3}{4}$ ounces postpaid for 35 cents.

W. M. F. NYE, New Bedford, Mass.



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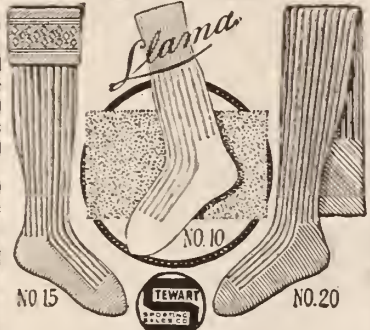
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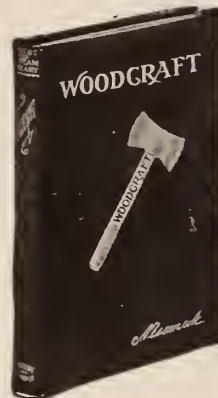


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study any fly. One moment it is before them, the next moment gone. Naturally therefore they must act swiftly, which they certainly do. It is quite needless to fish with over six kinds of flies. If six assorted ones won't do it, six thousand will not.

Of the standard regulation flies I have had good success with the Grizzly King, Professor, White Miller, Gray Hackle, Coachman, and the Queen of the Waters.

If you want to add three more styles, I would suggest the Brown Palmer, Cowdung and the Silver Doctor. With the above (in the standard regulation form) I have registered my best success. If these flies fail you, there is no use trying anything else. At that, I fished against the regulation flies last summer with the Gove flies, with the true transparent wings, and won with ease. That is principally one reason why I am getting disinterested in commercialized productions.

These flies should come tied to number 10 and 12 hooks. It is a good plan to have both sizes.

Experimentation and close study have proven that the size of the fly counts for a great deal. Sometimes the mere changing from a large size to a small size fly has been the difference between an empty creel and a moderately filled one. Rarely is there need of using more than two flies to the leader. In fact I firmly believe that with one successful fly, using skill, consideration and judgment you will do best. All the papers and books I ever read on trout fishing always stipulate three flies. My idea is that if one fly won't attract a fish, three won't, nor will a hundred.

Seth Green, I believe it was, or was it Thad. Norris, said that it didn't matter what sort of a fly you used? What counted was the way you fished that fly. He averred that you could make it an artificial, inanimate thing or something that had apparently, life. By this he meant that you should work the fly in the water so that it appeared like an insect drowning, or rising from the bottom of the stream to reach the air, and live its short and golden life. The person who first dubbed wet fly fishing as not being an art, but a sordid "chuck and chance it" method, was, and is, a snob. True, the way some people fish, its no wonder they register so much poor luck. To get fish on the fly you must exert selection first, then you must judge conditions and cast true, and not send out upon the water a bunch of coils of line and conglomerated leader; then, too, in working your fly down, and finally across the current, you must try to move it so that it looks and acts lifelike. This is done by a series of continued twitches to the rod, which often very well serve to bring an open and close motion to the feathers and hackle.

Furthermore, your amateur will make the same mistake that the bass fisherman makes. He will stand and whip a fly into the same place and cover the same strip of water fourteen times. This is foolish.

Say that you are standing in the river commanding a wide semi-circle, within which are many good spots that look tempting. Start to cast toward the right hand side of the circle and work toward the center ahead of you. Do not be

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afraid to cast your fly into the white water. Generally many trout lie below rapids, alert, waiting for food to come down. They generally strike the fly quickly and surely in the turbulent white waters.

ASSUREDLY the best time of the day to fish for trout of any kind is in the morning, from six to eight. From three o'clock to twilight it is also exceptionally good. Most articles and trout books stipulate that you shall not fish for trout after nine in the forenoon, till four in the afternoon, because, simply, the trout won't strike. Yet is this true? It's a foolish assertion, I hold, and the painstaking, considerate angler will get as many trout throughout the whole day as any time. I back this up, not with supposition, but the fact that I have consistently found the allusion untrue. It is quite useless to fish when the sun is shining bright on the waters, is another assertion. The fact of the matter is that the trout, having fed, retire to the deep pools and their cosy nooks to wait till they have digested what they have eaten, before making another sally. Where waters of pools are shadowed, do not fail to cast your flies, or your baited hook—even when the sun is elsewhere shining brightly, or whether it is around the middle of the day.

The best days for trout fishing are the cloudy days, with very little wind, and a feeling, humid warmth in the air.

Just before a rain the trout congregate in the pools below the white waters, ready to catch food that the stream will wash down when the rain comes to brush insects from the overhanging trees and bushes, and from the rivulets that trickle into the large stream later.

Around the mouths of small rivulets and streams flowing into larger streams you will find them after a rain, for obvious reasons. When you catch a trout in a pool do not get excited and make a disturbance in the water, by plunging around and splashing. Rather lead your capture away from the pool, down stream, and there fight him to the net. The trout in the pool will not then be frightened. Do not return immediately, but allow the pool to quiet down.

A pool below white waters should hold from fifteen to twenty good sized trout. As to whether you should fish upstream or down-stream, surely the former. You generally cast your fly upstream and across. However, some anglers fish down-stream in the morning, and come back up in the late afternoon. This is a good plan. *Only*: when fishing down-stream it is best to work around a pool by land, and then fish in the regulation manner, upstream and across.

The scientific and methodical angler makes every cast more or less count. The average amateur feels that he is loitering unless he has laid his line over every foot of water on the stream. When you reach a likely place, study it carefully, diagnose its probabilities and possibilities, and act in accordance with your practical intelligence. For instance, I once came across a fine pool below a boulder. I had an idea that a trout was lying in the still water this side of the boulder. I, therefore, cast the

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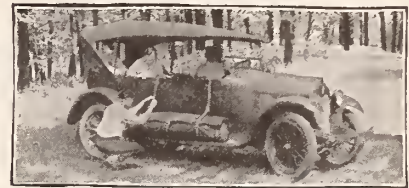
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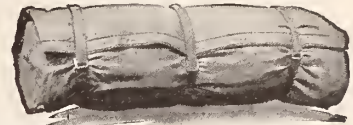
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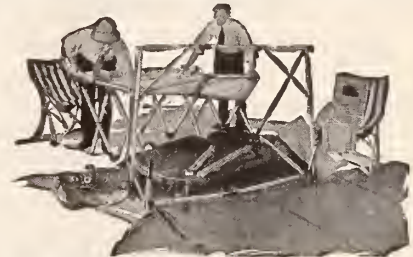
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flies (two of them) over the boulder and then gently drew them off the stone, as though they were live flies dropping off their dry perch to the watery prison. On the instant they touched the surface, a rainbow trout of three pounds smashed through and seized the lead fly. Here is a practical hint that may be utilized.

Irving Bacheller, the famous novelist tells of the wisest trout fishing stunt he ever heard of. A man had been fishing a stream all day without success, but noted that a number of trout were congregated under an overhanging tree, picking up insects that fell from its foliage. A bright idea entered the man's head, so he climbed up in the tree, and dropped his flies down through the branches and got all the fish he needed. I don't know how he did it, without frightening the rest of the trout away, but it sounds plausible. Perhaps Mr. Bacheller can speak further on that subject.

RULES in trout fishing amount to little or nothing—the saying that you shall do *this*, or do *that*. For instance, the common assertion that, “may the east wind never blow,” for on such days there is not a bare possibility of getting trout. As against this I have caught many trout on such days; my finest basket of trout was caught last June when a northeast wind was blowing.

Forget an awful lot that you read in books. Books serve their purpose, but there is a limit to their practical usefulness. Study your stream well, adapt yourself to conditions, outfit right, then recognize the use of caution first, foremost and all of the time. One hour in actual practice on a trout stream will teach you more than a hundred books!



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CATFISH PHILOSOPHY

(CONTINUED FROM PAGE 341)

if to see how he stood the story, then with his peculiar “Gee, that's bigger'n me,” watched the stranger as he walked down the bank to loosen his line from a bush where it had caught and turned to Mr. Woodhull with: “Wonder if he's stringin' us? Catfish carryin' eggs round in their mouths; some weighin' more'n a hundred pounds.”

Mr. Woodhull said he had heard the same before and had read of the very large catfish to be found in the southern rivers. Here was corroborative proof from a source he did not question, and he sat pensively digging his toe into the bank as was his custom when perplexed.

THE stranger, whose name was Adams, resumed his seat and was much amused at Matt's incredulity for well he knew what was working in the boy's mind. “I once helped take some of the largest ones I ever saw down near Louisiana,” he continued. “We took them with gallon jugs and—” “For bait?” almost yelped Matt, and the look of incredulity on his face was a study, while the two men roared with laughter.

The lad got up from his box, leaving his pole resting in the crooked stick and hook lying on the bank and threw a stone at a catbird which was sending out its



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taunting cries from a cluster of alders across the basin, then walked slowly back and resumed his fishing without a word. "Oh no," said Mr. Adams, "we used the jugs for floats. Just tied the proper length of line to the handle of the jug, for no matter when or where you fish for catfish you must fish near the bottom. Then we set the jugs adrift in a bayou." "What's them?" said the boy. "Why a bayou," replied Mr. Adams, "is where the water flows back into the country from the river into a sort of basin and has but little if any current. In such places are to be found the largest fish and many kinds besides catfish. Then we would row back to the shore and watch the jugs. When one began bobbing around we knew a catfish was at the bait; then when it would start off, going completely under sometimes, we knew it was hooked and would row out, draw it to the surface and stun it with a club, then tow it to the shore." The boy's only comment was: "Oh." Keeping his eyes steadily out on the water, he quietly asked: "Mr. Adams, did you ever catch a mud-puppy?" The look on the latter's face was a puzzle, as to whether the boy was trying to joke him or not. Finally he said: "No. I never did; what are they like?" "Why, Mister, like nothing at all in the world 'cept 'tarnation. What things like that were made for beats me," and he proceeded to describe as best he could the freak which Mr. Woodhull had swung so disagreeably near his head. He finally grasped the boy's meaning and said he had seen them in an aquarium. That they were termed hellbenders there and were among the lowest order of animated creatures.

"There is another catfish," continued Adams, "which is much esteemed in southern rivers, called the channel cat, because it is rarely or never found except in swiftly moving waters. It is a hard fighting fish on the line and much sought after by anglers. It sometimes reaches a weight of ten pounds and is good eating. As a matter of fact all the catfish tribe are good fish and if a little study is given to their preparation for the table many of them are really delicious. Millions of pounds are caught and sold annually throughout the middle and southern states and yet there seems to be no diminution of the supply. I wish I could say as much favorably of the salt water varieties, of which there are two distinct kinds. Where so many choice fish abound they are generally regarded as a pest by the angler and are but little esteemed for the table."

Each had all the fish they desired, the sun was working well down in the west and they decided to call it a day and go home. Mr. Adams thanked them for the points given him as to where to go for different kinds of fish and they in turn thanking him for his information. "Gee," observed Matt, as he ran the end of his pole in the runway of a meadow mouse to see if the rodent was at home, "he sure does know a heap about catfish."

Thus another day of quiet enjoyment was accomplished and the boy and the man turned homeward with satisfaction in their hearts with Nature's ways.

(TO BE CONTINUED)



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The unspoiled country—a Camp with every comfort in the heart of Canadian north woods—1500 lakes. Best fishing. Boats, Canoes and Launches for hire. Bathing, Tramping, Guides. One night from Toronto. Excellent table, \$18 and \$17 per week. Write for Booklet.

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WAPITI—The Camp of the Deer

Fishing just now for the fisherman, and hunting later on for the hunter. Good eats for every one and all sorts of outdoor recreation for young and old, as the cabins face cool Davis Pond, and have the famed Maine woods for a background.

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CAMP WAPITI ASSN., PATTEN, MAINE.

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The state for every one who wants to live outdoors.

Lake Parlin House and Camps

Henry P. McKenney, prop.,

Jackman Station, Me.,

offer every form of outdoor recreation for young and old. The fisherman, hunter, autoist, toddler and member of the "rocking-chair fleet" will enjoy every minute. Send for descriptive booklet.

IF GOOD FISHING, GOOD HUNTING, BEAUTIFUL SCENERY, PURE AND HEALTH-GIVING AIR with good accommodations at reasonable prices are the attractions that call the sportsman and his family away from their daily cares, then the merits of **CLEARWATER CAMPS** should be investigated.

CLEARWATER CAMPS

Are situated on the western shore of Clearwater Lake, near the little village of Allen's Mills, five miles from Farmington, the terminus of the Maine Central Railroad, and the shire town of Franklin County, Maine.

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HAYWARD, WISCONSIN

Express records show that more muskallunge and bass were caught during the season of 1918 at our Resort than any other in Wisconsin. Better be safe than sorry.

"Come to the lovely Valley of the Beaverkill"

Famous for scenery, clear air, fishing and other vacationist diversions. One of the best resorts has enjoyed the same patronage for twenty seasons. Rates are reasonable and accommodations limited. Write for further information to

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The Well-known Tobey Estate,

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In Maine's Ideal Spot for Camping, Boating, Fishing, Hunting.

The place for you, Mr. Sportsman, and the entire family. This region is famous for Trout and Landlocked Salmon fishing during the spring and summer and Partridge and Deer Hunting in the Fall. Each camp has open fireplace, nearly all have baths—fitted in a way that spells comfort. Excellent cuisine. Fresh vegetables, milk, cream and poultry. Write for booklet.

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Finest Trout Fishing in Maine

Partridges—Ducks—Woodcock—

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Request booklet and decide to try best game section in Maine

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Six miles from village of Catskill; sanitary improvements and modernly furnished; select patronage; wonderful brook trout fishing in the mountain streams and German Brown, Rainbow Trout and Pickerel weighing up to 3½ pounds can be caught in stream running through property, within 500 feet of house; bird and rabbit shooting in fall; auto service from depot to house.

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120 Acres of Lake, Brook, Mountains and Woods
Large and Small Mouth Bass up to 6 lbs. in Lake

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Why go to Maine or Canada when I can give you good hunting and fishing 300 miles from N. Y. City? Lake, Rainbow and Brook Trout, Bass, Pickerel and Muskalonge, May 1st to Aug. 31st. Deer, Oct. 1st to Nov. 15th. Guides on application. \$21.00 per week and up. All inquiries cheerfully answered.

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CAMP BONNIE DUNE

ON CAPE COD

A Summer Camp for Young Boys (8-14 yrs.)

Let your boy learn early the Lure of the Great Out Doors.

We will give him Loads of Fun in

The right place, with the right climate, the right care, the right equipment, the right companionship.

For full information address

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A Summer Camp in the Rocky Mountains for boys. Pack outfits for big game.

Hunting, fishing and camping.

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A summer resort, located in beautiful Sullivan County, in the midst of Nature's splendor.

SEND FOR BOOKLET

E. B. FERDON, Prop.

Roscoe, N. Y.

JAMES ALEXANDER HENSHALL

(CONTINUED FROM PAGE 339)

able baskets with moss or ferns, but the boys strung them on a cord. The size of the catch was determined by the length of the string, and it was not uncommon to see strings of gudgeons three or four feet in length.

When tired of the sport, or when fish enough had been taken, the ladies and gentlemen would repair to the parlor of the hotel, or sit in the shade of the trees, where colored Ganymedes, clothed in white aprons, would serve them with port-wine sangaree and sponge cake, two specialties for which the Relay House was famous. This locality was a favorite resort for picnics from Baltimore, but while the gudgeon season lasted, every day was a gala day.

So far as I am aware Johnnie and I were the first fly-fishers for gudgeons; that is, we were probably the only ones who attempted to lure them with the artificial fly. Early in the spring following my long siege of fever I determined to make the experiment as soon as the fish appeared in the neighboring streams; I had not forgotten the instruction I had received in fly-tying several years before. Accordingly I dressed half a dozen on hooks No. 14, with red worsted body, white tag, gray shoulder hackles and tied on long horse-hair snells. As gudgeons are essentially carnivorous I imagined that they might be tempted to rise to such a fly in mistake for a bit of beef or earthworm, or perhaps for some nondescript insect. So, about the beginning of May we went out to Herring Run, Johnnie and I, to try them. The result was even more gratifying and successful than we had anticipated, for the flies were taken greedily, and our baskets were soon filled with the silvery beauties.

JOHNNIE and I were rather musically inclined, and whether hereditary or acquired, we considered ourselves not half bad vocalists and performers on the banjo and accordion. Johnnie's accordion was German; mine was French. The arrangement of the reeds or notes in the scale of each was different. To sound the notes C, E or G with the French instrument the bellows was pulled out while the same notes on the German instrument were produced by pushing in the bellows. Consequently, while each of us was tolerably proficient with his own accordion, neither of us could perform with the other. But as Johnnie had the push and I had the pull we managed very well with banjo and either accordion. But, unfortunately, as the two instruments were pitched in different keys they could not be played together.

To encourage us, I suppose, and to promote our musical ambition, our parents allowed us to attend concerts occasionally. Our preference, however, was for Negro Minstrels which had their beginning about that time. I think we attended the first performance of its kind in Baltimore at a concert of the "Virginia Serenaders." There were less than a dozen performers, whose instru-



THE MARKET PLACE



ANTIQUES AND CURIOS

CALIFORNIA GOLD, QUARTER SIZE, 27c; 1/2 size, 53c; Dollar size, \$1.10. Large cent, 200 years old and catalogue, 10c. Norman Shultz, King City, Mo.

COINS—FIVE CURIOUS RARE COINS WITH catalog, 10c. H. Hooker, New Berlin, N. Y.

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FORDS RUN 34 MILES PER GALLON WITH our 1919 carburetors. Use cheapest gasoline or half kerosene. Start easy any weather. Increased power, Styles for all motors. Runs slow high gear. Attach yourself. Big profits for agents. Money back guarantee, 30 days' trial. Air-Friction Carburetor Co., 530 Madison St., Dayton, Ohio.

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BEST BAIT—NATURE'S LURE, USED BY old fishermen gets the fish when others fail; always carry a box with the rest of your tackle; 25c per box. R. E. Schwartz, Buchanan, Mich.

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BROWN'S FOX BOOK. LATEST AND BEST book on the art of fox trapping. Tells the necessary outfit, gives receipts for making seven scents, tells proper bait to use and gives detailed directions for making seven different sets. Any man or boy who can catch muskrats and skunk can catch foxes if he will be guided by this book. Written with the express purpose of helping amateur fox trappers, but no fox trapper should be without a copy. Price \$2.00. On sale June 15th. Address Ernest A. Brown, 24 Gillis St., Nashua, N. H.

EGGS FOR BREEDING

DECOYS, CALLERS, PURE BRED, NO limit. Wild Mallard eggs, \$2.50, 12; \$30, 100. Birds, \$4 pair. English caller eggs, \$5, 12; \$40, 100. Birds \$8 pair (extra drakes). Muscovy ducks, trio, \$3.50; eggs, \$2.50, 11. Mail draft E. Beman Co., Danville, Ill.

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BUY, SELL AND EXCHANGE ALL SORTS OF old-time and modern firearms. Stephen Van Rensselaer, 805 Madison Ave., New York City.

CARTRIDGES—30-30 WINCHESTER METAL cased. 1146 fifty boxes, bought last November at \$1.55 per box. Will sell for 75 cents a box. Privilege of examination. W. G. Scroton, 76 South Ave., Bradford, Pa.

FOR SALE—40-82 WINCHESTER MODEL 1886 good condition; price, \$15. Arthur A. Colwell, R. D. 1, Chepachet, R. I.

FOR SALE—REMINGTON PUMP, STAND- ard grade, 12 x 30 full; excellent condition, \$24. Want Field Grade Ithaca 12; describe fully; state lowest price. Harold Sinclair, Charlottesville, Va.

FOR SALE—WINCHESTER. 351 AUTO- matic, guaranteed good condition, 150 shells, extra magazine, new case and broken shell extractor. First draft for \$40 takes outfit. Weirick M. Fay, St. Joseph, Mich.

SEND \$2.00 FOR ONE YEAR'S DELIVERY of Arms and Ammunition "accurate gun dope condensed." T. T. Pierce, 258 W. 34th St., New York City.

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WANTED—TO GET INTO COMMUNICA- tion with parties who would be interested in organizing a FISH AND GAME CLUB, as I represent the owners of a very desirable location of about 7,000 acres of good land and on which is a very fine trout stream and plenty of all kinds of game. It also has a large amount of young trees as well as original growth timber. It is near a main line railroad in Pennsylvania. It can be bought for \$4 per acre. Title perfect. Address A. R. Spicer, Agent, Williamsport, Pa.

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FISH FOR STOCKING—BROOK TROUT FOR stocking purposes. Eyed eggs in season. N. F. Hoxie, Plymouth, Mass.

SMALL-MOUTH BLACK BASS, WE HAVE the only establishment dealing in young small-mouth black bass commercially in the United States. Vigorous young bass in various sizes, ranging from advanced fry to 3 and 4 inch fingerlings for stocking purposes. Waramaug Small-Mouth Black Bass Hatchery. Correspondence invited. Send for circulars. Address Henry W. Beeman, New Preston, Conn.

A nominal charge of five cents per word will carry classified messages to our army of readers on farms, in the towns and cities, and at the end of blazed trails.

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CANADA WILD GEESE AND THEIR GOS- lings. Breeding and young pairs offered now—the surest way to start breeding this species. We are the oldest and largest breeders of Canadas in this country. Black and white swans, wild ducks, etc., for sale. Wheaton Water Fowl Farms, Chincoteague Island, Va.

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FOR SALE—FLEMISH GIANT RABBITS; never beaten in a show room. O. O. Young, Carey, Ohio.

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FOR SALE—PURE BLOODED BELGIAN hares. Stock over 3 months of age; single males, \$2.00; single females, \$4.00; mated females, \$5.00 each. Harry Chandler, New London, O., R. D. 5.

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MISCELLANEOUS

AGENTS—MASON SOLD 18 SPRAYERS AND Autowashers one Saturday. Profits \$2.50 each. Square deal. Particulars free. Rusler Company, Johnstown, O.

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MUSKEETOPUNK.—THE MOST EFFECTIVE remedy for mosquitoes on the market. It never fails to satisfy; 35c a package, three, \$1.00. Muskeetopunk Co., F, Pekin, Ill.

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320 ACRES REAL WHEAT LAND FOR SALE in foot hills of Rocky Mountains close to divide and Yellowstone Park, in heart of big game country. Elk, deer, moose, sheep, goat, antelope, bear, good bird shooting, mountain trout and salmon fishing; big horse, cattle and sheep range just north of ranch; can see 100 miles south across Dubois irrigation project; close to railroad and county seat; good reasons for selling. Cash or terms. Bob Boak, owner, Dubois, Idaho.

520 ACRE GAME FARM, 28 HEAD OF DEER, will have about 20 fawns this season. Good hunting; two fine living streams on place; fine chance for fish ponds; 110 acres in cultivation; balance fine young timber. This place will support 1,200 head of deer. For profit and pleasure you can't beat it. New log bungalow costing \$3,900; water under pressure; two fireplaces; hot and cold water, toilet, bath. One thousand dollars worth of new furniture go with place. A fine sporting headquarters; mild climate; \$50 per acre. Owner, G. D. Gorus, Purdue, Ore.

DE BRUCE, SULLIVAN CO., N. Y.—COT- tage, seven sleeping rooms, large living room, dining room, kitchen. Within 1,000 feet of junction of Willowemoc and Mongaup trout streams. Altitude 1,600 feet. Six miles from Livingston Manor Station, N. Y., O. & W. Ry. Apply R. D. Rickard, 3730 Grand Central Terminal, New York City.

FOR SALE—IDEAL LOCATION FOR HUNT- ing lodge on Yellow River, Burnett County, Wisconsin. Many good fishing lakes in district. River bank overlooks nine-acre wild rice swamp in bend of river. Old timers say best duck shooting in Northern Wisconsin. Forty acres in tract overlooking the big rice swamp. Sixteen miles from Spooner or Webster, 3 miles to inland town. Will sell tract outright for \$600 or will lease for period of years. Members of shooting clubs write for further particulars. R. R. Ring, 333 Palace Bldg., Minneapolis, Minn.

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GLASS EYES, TAXIDERMISTS' SUPPLIES. Prices free. Paul Miller, Cambridge, O. Mention Forest & Stream.

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TRAPPERS AND HUNTERS.—I WILL MAIL you a tried and successful receipt for trapping mostly all kinds of wild animals upon the receipt of \$5 in currency. Also a valuable tanning receipt for \$1. F. Johnson, P. O. Box 1047 San Francisco, Cal.

TURTLE NETS THAT GET THEM, MAKE \$15.00 a day trapping for the market. I am an old turtle trapper. Will tell you how. Nets \$2.25 each, \$25.00 per dozen. W. D. Raudman, Constantine, Mich.



THE KENNEL MART

In transactions between strangers, the purchase price in the form of a draft, money order or certified check payable to the seller should be deposited with some disinterested third person or with this office with the understanding that it is not to be transferred until the dog has been received and found to be satisfactory.

AIREDALES

AIREDALES FOR SALE—ONE HIGH-CLASS stud dog two and a half years old, Elruge Monarch both sides of pedigree; long head, darkest of eyes a proven stud; a winner and sire of winners. \$150—worth \$200. Fifteen months old bitch, Ch. Soudan Swiveller strain, in whelp to above dog, splendid color, hardest texture of coat, small ear, game as a tiger, \$50. Yearling bitch by International Ch. Kootenay Chinook, \$35. Full particulars on request. Must sell on account of expiration of lease. John M. Blayne, 1542 58th St., Brooklyn, N. Y.

LIONHEART AIREDALES HAVE EARNED a national reputation for gameness, intelligence, and high standard of appearance. They are making good on both fur and feathered game in practically every State in the Union and Canada. Registered puppies that are bred to hunt and fit to show, now ready for delivery. Lionheart Kennels (Reg.), Anaconda, Mont. (Formerly Washoe Kennels).

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FOR SALE—PAIR TRAINED BEAGLES, UN-related, \$25. Pair ready to train, \$12; female pups, \$3. H. G. Mozena, Clarington, O.

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COCKER SPANIELS, HIGHEST QUALITY English and American strains; hunting, attractive auto and family dogs; puppies, males, \$15; females, \$10. Obo Cocker Kennels, "Englewood," Denver, Colorado.

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THE LARGEST AND BEST COLLIES IN this country for their age sent on approval. Book on the training and care of Collies, fifty cents. Dundee Collie Kennels, Dundee, Mich.

WHITE COLLIES, BEAUTIFUL, INTELLI-gent, refined and useful; pairs not a kin for sale. The Shomont, Monticello, Ia.

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I EDUCATE FIELD TRIAL AND SHOOTING dogs, preserve character, demand perfect obedience. Gave five dogs new records past season. Edw. D. Garr, Lagrange, Ky.

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AIREDALE TERRIERS WANTED, PUPPIES and grown stock, either sex. Must be healthy, thoroughbred, reasonable. Give full particulars. If you wish to buy an Airedale, write for our sales list. Airedale Exchange, Box M, La Rue, O.

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WANTED TO BUY TWO OR MORE GOOD bear hounds—must be guaranteed or sold on trial. If you have the stock, write me, otherwise do not. W. H. Campbell, Pueblo, Colo.

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FOR SALE—A LITTER OF EXTRA WELL bred wire haired fox terrier puppies. Registered. Geo. W. Lovell, Tel. 29-M, Middleboro, Mass.

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ENROLLED ENGLISH SETTER PUPPIES OF the world's best breeding. The dam is the great field trial and bench setter, Theodores Sally, handled and trained by W. D. Gilcrest. The sire, a straight Llewellyn and a shooting dog par excellence. You can't beat the combination. Lionheart Kennels, Anaconda, Mont.

GUN DOGS

LLEWELLYN FEMALE PUPPY, BY RIGO-letto; dam, Paliacho's Bessie II; beautifully marked white, chestnut and tan; whelped Sept. 28, 1918; unexcelled blood lines for high-class brood bitch; right age to start work for fall shooting; photo if desired; \$75; no trades. F. A. Best, 33 East 13th St., Tulsa, Okla.

PEDIGREED ENGLISH POINTER PUPPIES bred from finest shooting stock, \$10 and \$12 each. J. M. Drumm, Mercersburg, Pa.

THE BLUE GRASS FARM KENNELS OF Berry, Ky., offer for sale Setters and Pointers, Fox and Cat Hounds, Wolf and Deer Hounds, Coon and Opossum Hounds, Varmint and Rabbit Hounds, Bear and Lion Hounds, also Airedale Terriers. All dogs shipped on trial, purchaser alone to judge the quality. Satisfaction guaranteed or money refunded. Sixty-eight page, highly illustrated, interesting and instructive catalogue for 10c in stamps or coin.

TWO ENGLISH SETTER PUPS FOR SALE—Male and female. One blue Belton markings dog, white beach ticked. High tax. Will sell female very cheap. Guaranteed or money refunded. H. W. Thompson, Putnam, Conn.

WESTMINSTER KENNELS, TOWER HILL, Ill., offers coon, skunk, opossum dogs; crackerjack rabbit hounds, \$15.00. Dogs just beginning to trail, \$10.00. Ten days' trial allowed.

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CHOICE COON HOUND PUPS, BRED FOR seven generations from tree and hole barkers; males, \$6.00; females, \$4.00. Isaac Tolbert, Malta, Ohio.

CLOSING OUT THIS MONTH—SEVERAL fine trained fox hounds, rabbit hounds and royally bred puppies; thoroughly trained, seasoned and experienced coon, skunk, opossum and squirrel dogs at cost. Stamp brings description and special closed season price on any kind hunting dog you want. Powell Valley Kennels, Jonesville, Lee County, Va.

FOR SALE—AT ALL TIMES. HOUNDS FOR any game. Trial allowed. Send stamp for list. Mt. Yonah Farm Kennels, Cleveland, Ga.

FOR SALE—FOX, WOLF, COON HOUNDS. Walker & Goodman pups; papers. Painter Jip. N. R. DuVall, 2015 Clark St., Des Moines, Ia.

FOR SALES—REDBONE COON AND RAB-bit hounds, satisfaction guaranteed. W. B. Clark, Jonesboro, Ill.

FOR SALE—TRAINED AND UNTRAINED hounds. From mountain section, North Arkansas. Address Noah King, Calico Rock, Ark.

HOUND PUPS—SEVERAL LITTERS Sired by Capt. Kidd, 206193; Young Rambo, 206194, and Jackson A. T. H. S. B., 2584. Just weaned and ready to ship. Otis Slater & Sons, Oconee, Ill.

NORWEGIAN BEAR DOGS—IRISH WOLF Hounds, English Bloodhounds, Russian Wolf hounds, American Fox Hounds, Lion Cat, Deer, Wolf, Coon and Varmint Dogs; fifty page highly illustrated catalogue, 5¢ stamps. Rookwood Kennels, Lexington, Ky.

WOLF, RED AND GREY FOX HOUNDS. Game runners, good trailers, from \$35 to \$50. They can catch anything that doesn't fly. Edw. D. Garr, Lagrange, Ky.

MISCELLANEOUS

BEAGLES, FOX AND RABBIT HOUNDS, trained, \$10 up also farm dogs and puppies, \$3.50 up. C. R. Buie, Seven Valleys, Pa.

COON HOUNDS AND COMBINATION HUNT-ers for coon, opossum, skunk, squirrel, etc. Big game hounds, rabbit hounds, pointers, setters, airedales and fox terriers. Catalog 10 cents. Sam Stephenson, Covington, Tenn.

FOR SALE — FOX HOUNDS, BEAGLE hounds, coon hounds, and setters; rabbits, all breeds; guinea pigs, ferrets, white mice and rats; pigeons and blooded swine. Stamp for circulars. C. Louis Behm, Dept. 2, Springfield, Ill.

FOR SALE—ONE BLUE BEAGLE HOUND, 18 months old; good fox dog and fair tree dog. \$20 if taken at once. Frank Ricca, 2-4 Towson Ave., Fort Smith, Ark.

ments were violins, banjo, guitar, triangle, accordion, jawbone, and the tambourine and bones of the end men. The horse's "jawbone" was mounted with small bells, and was played by rattling a short stick between the rami of the jaw, which was varied by rasping it across the teeth, which were left in the jaw for that purpose.

While the songs and melodies of the Virginia Serenaders were very amusing and quite enjoyable, they were not much in advance of those I had heard in the tobacco factories of Richmond and Lynchburg, where they were sung by several hundred men, women and children. During one of my visits to relatives in Virginia, I remember seeing the "jawbone" and gourd banjo played together by field hands, and heard the house servants sing such melodies as Old Dan Tucker, Johnny Booker of Bowling Green, Dandy Jim of Caroline, Jim Crack Corn, Lucy Long and Lucy Neale. These same songs were part of the repertoire of the Virginia Serenaders, and though sung in unison, they were rendered with a vigor, rhyme and rhythm that placed them on a little higher plane of minstrelsy. It was not until the appearance of "Dumbolton's Serenaders" that the songs and choruses were sung in harmony, and more refined instruments introduced. Then came "Christy's Minstrels," soon followed by scores of other organizations of more or less merit. The banjo had advanced or evolved from the original gourd with horse-hair strings to its present form. I may as well say, in passing, that once I saw at a function in Virginia the first white man to play the banjo, and in fact the one who made the first wooden instrument. He was "Old Joe Sweeney" of Lynchburg. He appeared for several years at the theaters of the United States as well as in England.

(TO BE CONTINUED)

AFTER BEAR WITH BOW AND ARROW

(CONTINUED FROM PAGE 331)

weighed about 150 pounds. That's not what you would call a big bear, but that was no fault of ours, and we would have killed her even if she had weighed a ton.

We dragged the carcass up the ravine to level ground, and sat down to eat lunch. While we were sitting there we heard a noise like a horse walking and looking around we saw an old black bear down the slope, not fifty yards away.

I had one arrow left and Young had two. We loaded up the bows and stood waiting, but made no insulting remarks. The bear seemed to have business elsewhere and slowly meandered away. Young and I did not follow her. We had enough bear for one day, anyhow.

DANGEROUS SHARKS OF THE COAST

(CONTINUED FROM PAGE 347)

usual dark, staring eye of the man-eating sharks. I weigh 275 lbs. and have a 52-inch waist, yet I passed through its jaws, which I have nicely cleaned. This shark was not securely fastened in the net and was tearing its way out when I fastened it with a harpoon just in time, and a most savage fight followed. The parts of the tail stood more at an angle with the body than in the young, but the angle was not as pronounced as in the great white shark.

"There can be little doubt that the tiger shark regularly preys on other sharks to a considerable extent. During the few weeks that I was watching the fishery at Cape Lookout I examined the stomachs of three young tiger sharks, and in all three I found cleanly bitten pieces of freshly eaten shark-meat with skin attached, just as if the chunk of meat had been cut from the side of a shark. In the largest example, 7ft. 9 in. in length, caught in my nets June 25th, there were eleven of these chunks of shark meat of from 1 to 5 lbs. each in weight, and they represented *hammer-head*, *sharp-nosed*, and *ground sharks*.

"Additional observations made during the first week of August on three more tiger sharks, each in excess of twelve feet in length, confirm my former observations as to the varied character of their food. In one of them I found a freshly-eaten logger-head turtle, approximating 100 lbs. in weight, which had been bitten through both shells, in three places and the pieces of shell much crushed, yet all parts of the turtle were present.

"Probably tiger sharks will use as food, when hungry, any creature which they find moving in the water, for which reason they must be dangerous as man-eaters; but I do not regard them as nearly so dangerous as a white shark which has once acquired the habit of eating human flesh. While it is not fastidious, I have no evidence as yet that even the tiger shark will eat unclean food, and in my opinion, the sharks which eat garbage or putrid matter are exceptional individuals, which, through some accident, have acquired the habit."

HAMMERHEAD SHARK

"THERE is probably no fish as careful about its diet as the shark, and those that eat anything but freshly caught fish are the exception and not the rule. Some species even subsist almost exclusively upon one species of fish, to such an extent that when a person is fishing for them with a hook baited with a perfectly good fresh fish, he may see a shark nose the baited hook repeatedly and leave it. I have had certain sharks repeatedly reject in this manner several species of fish and then eagerly take the hook when baited with the species of fish which is their habitual food. This is especially true of the hammerhead shark, which follows and subsists on the schools of Spanish mackerel, and of the very many which I have examined the stomachs of, all but a small fraction contained, as far as I have identified no other substance than Spanish mackerel. The exceptions were only

very old examples, several of which had become solitary in habit and subsisted exclusively upon sting rays, which, as far as observed, were *Dasyatis*. Others, which were easily recognizable by their badly worn teeth, had become cannibalistic and confined their cannibalism to their own species.

"One of the most interesting facts about the hammerhead shark is that some of the large females with non-functional uteri are abnormal in form and feeding habits.

"I attribute this abnormal condition to great age. I have examined specimens over 14 ft. long, in every way normal and with functional uteri, which I do not consider so old.

"I believe that certain examples of hammerhead shark of great age become cannibalistic, by evidence afforded by a number of examples, but I have no evidence that such is the case before their length exceeds 10 ft., and I have probably examined a thousand examples.

"A specimen of 13 ft. 10 in. illustrates the change of form accompanying this change of habit. This example is abnormal in point of stoutness, for, to have been normal with this circumference, length of fins and very great weight, the width of head should have exceeded 5 ft. and the length of body should have exceeded 16 ft. The mouth and teeth were also abnormally large for this short length. It is probable that within . . . two weeks this large shark had eaten from my nets more than 50 sharks of about 6 ft. in length, leaving only their heads gilled in the net; and, with at least half a dozen species to select from, it was always her own species which she selected. At the time of her capture she had just eaten four of her species from my net, two of which had been swallowed whole, except the head of 5 ft. examples, and there were four cleanly-cut pieces which represented entire bodies, except heads, of two more 6 ft. hammerhead sharks; then the stomach contained more than a peck of vertebrae of sharks, provisionally identified as her own species.

"The uteri of this specimen were small, malformed, almost obsolete, and non-functional. From evidence obtained by examination of the uteri of many very old female sharks, I am of the opinion that after they have reached very advanced age, their reproductive organs cease to be functional. . . .

"Size of young in sharks depends on size of mother. I have often caught sharks of this species, long after their birth, measuring less than 20 inches, indicating a small mother, and I have found larger embryos not so far advanced in a larger mother."

PREVENTING FOREST FIRES

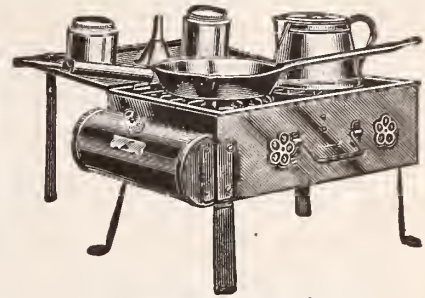
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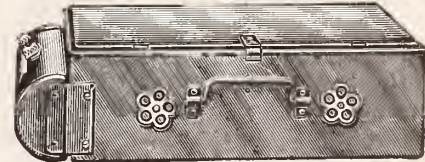
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AFTER GOAT IN ALASKA

(CONTINUED FROM PAGE 358)

line of the fore leg, was raised a little and then the twenty-two turned loose its chunk of lead. At the report the big billy dropped in his tracks, then got up and came directly towards me with his nose on the ground. Once more the little rifle delivered its spiteful bullet and the old billy, with arched back, turned and staggered to his previous position, sank to the ground and giving a last convulsive kick went falling and rolling down the mountain side, rebounding off the trees and rocks until I feared his horns would be utterly ruined.

At the same time I was conscious of a strange, triumphant thrill of exultation, such as I had not experienced for many a long day, for I had tracked to his lair in the rocky fastnesses of the mountains, an animal strange and mysterious, whose like I had never seen before. His head, fortunately uninjured, I recovered and packed out to the boat. The difficulty I had in reaching the coast after darkness had overtaken me, soaked to the skin as I was, was another experience which will help me to remember my first mountain goat.

I HAVE since seen and hunted the mountain goat under various conditions. Dwelling ever in the realm of perpetual snow, his home in summer among the cloud peaks of the most inaccessible mountains, descending to the timber line only in winter, and then in remote regions seldom visited by man, this strange animal owes his security as much or more to the difficulties attending his pursuit than to his own natural wariness. Many times I have followed him at the absolute peril of life and limb.

Once in particular, while crossing a steep slope covered with about four inches of wet snow, I fell and started swiftly sliding to the bottom. I dug my fingers into the frozen turf, but my momentum kept increasing very fast. I thought I was a gone goose when suddenly I struck a clump of brush. I had chanced to be in line with the only one near and was thereby saved from a two-hundred foot drop at the foot of the slope and making a premature entry in the happy hunting grounds. Since then I have avoided grassy slopes, when covered with a soft snow.

I estimated the largest billy goats to weigh between three-hundred and four-hundred pounds. The females are about one-third smaller, their horns are as long as the male's, but more slender and graceful. The mountain goat is a short legged and agile animal. The males are said to be savage fighters. The Indians of the Stikine country tell of finding grizzly bear with their entrails ripped out, in battles with the billy goats.

But on the whole these animals are non-combative and much prefer to avoid an encounter with other beasts. They do not move about as much as sheep and when once located generally remain in close proximity to the place where first observed, giving the hunter ample time for the stalk and generally for the shot.

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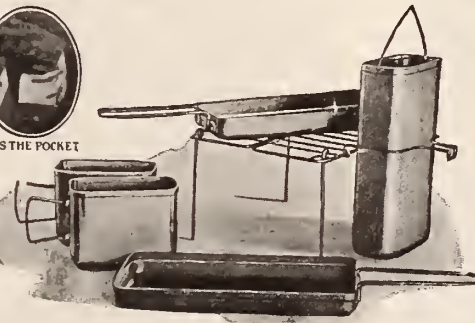
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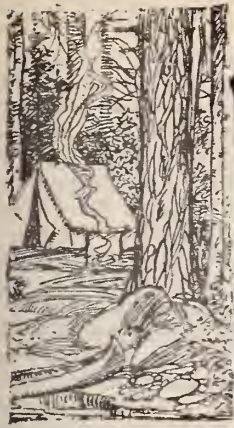
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HAWK HUNTING WITH A DECOY OWL

PHOTOGRAPHING THE SWIFT HARRIERS OF THE AIR AS THEY SWOOP DOWN AND STRIKE WITH CUNNING VINDICTIVENESS AT THEIR 'AGE OLD ENEMY

By HARRY L. FERGUSON

IT is possible that the shooting of hawks and crows would not appeal to many people, but it does offer chances, for several months of each year, of being out with a gun when the game season is closed, and affords many opportunities for observing birds near at hand that would not be seen ordinarily, except at quite a distance. On a good day, when conditions are favorable, hundreds of small birds are continually passing, and many stop to look at the stuffed owl which is used as a decoy, and hop about in the nearby trees, each in its own language showing disapproval of the owl. As birds ranging in size from a Bald eagle to a Humming bird have come to the decoy, it can easily be seen what a great variety is presented to anyone who loves to study birds close at hand.

For a number of years I have lived in the midst of a large tract of land controlled by a shooting club and which is quite heavily stocked with game birds. Each fall the hawks, on their migration, as they pass over, take quite a toll and draw the wrath of the game-keepers upon them. For years the only way the keepers had of shooting the hawks was to walk about and accidentally jump one off its kill, or to get a chance shot while hunting, as they flew about. Four or five years

ago we were told to set up a stuffed owl and see what would happen. A very ingenious owl with mechanical head and wings was then offered for sale in New York, so one of these was tried, and the question of getting hawks to come within gun shot was solved. For some reason owls are heartily hated by most birds. When one is

To have a heavy flight, it is necessary, where I live, to have a real change of weather. If in the latter part of September we have a good storm followed by a cold night and the next morning a fairly strong wind from the northwest, we always have a big flight. One year we did have a large flight of Sharp-shinned hawks when the wind was from

the east, but nearly all these birds were at a great height, and possibly had different conditions at the level at which they were flying.

FOR several years I had shot hawks with the others, and then I thought I would like to get some pictures of them as they were attacking the owl, so I traded in several old cameras for one more suited to this work. My first attempt proved to be one of the most thrilling experiences I had. I had set up my owl not far from the house to see if I could get some crowd pictures.

The woods where I "set up" were on the line of flight from a crow roost to the salt water, where each morning they would fly to their feeding grounds on the mud flats and marshes. The owl had not been in position more than a few minutes when a crow spied it and called. In a moment the air was full of them, cawing and flying around about I should judge there were about fifty



Marsh hawk or harrier coming to a live great horned owl

spied it usually means that he is in for a pretty disagreeable time.

During August only an occasional hawk is seen, but, as the nights grow colder and the migration time approaches, more hawks are travelling about. From early in September until November great flights of them occur whenever the conditions are suitable.



Duck hawk about to strike. This is the Perigrine Falcon used in olden times by the nobility for hunting

crows and the noise they made was deafening.

Suddenly above the racket could be heard four shrill "ke-e-e's" and a big Red-shouldered hawk sailed up and struck the owl, knocking feathers from its head. A second hawk, evidently its mate, sailed up and joined in the attack. First one, then the other, would squeal and strike, and all the time the crows were circling about and cawing for dear life. The owl finally received a blow from one hawk which bent its head over at right angles, and the other hawk on its next attack knocked the head completely off, leaving only a wooden peg upon which the head had been fastened. Even with the owl headless the hawks kept up the attack, until I was afraid they would completely spoil it, so I came out of my blind and scared them off. I put the decoy up a good many times that winter, and always the same pair of Red-shoulders came and attacked it, so it received a fearful punishing from them. Sometimes his whole head would be knocked off; at other times it would be his back that suffered, but glue and tacks fixed him up, though he was left rather ragged in appearance.

A Rough-legged hawk was reported to me one day to be hunting over certain fields, so I set up my owl and camera. A string was attached to the trigger of the camera, as it was covered over with bushes. I sat in the blind, smoking and enjoying the view which looked over the woods and ocean, the string in my hand, and a gun within reach for any chance rarity that might come. For about half an hour I sat there without seeing a thing, except a Blue jay which came and scolded from a nearby tree. Suddenly a shadow flashed over me and, on looking up, I saw a large

Goshawk. I had only to give the string in my hand a pull and I would have had a picture of a Goshawk within two feet of the owl with wings outstretched and feet extended ready to strike, but I completely forgot that I had any camera with me, I was so keen to kill it, so I reached for my gun and shot it. I have only one excuse to offer and that is that I had missed three Goshawks during that same week and was too anxious to get a good specimen for my collection which only lacked one. Thus I lost a wonderful chance to take what would have been an interesting picture.



In a moment the air was full of crows, cawing and flying around the owl

ONE morning I went to a blind on a hilltop between two small patches of woods for a chance shot at a Goshawk that had been seen there the day before. It was still dark when I arrived, and I laid my gun in the blind and went to the tree to get the decoy up in position. To do this I had a long pole upon the top of which the owl was fitted, so all I had to do was to stand the pole against the tree. This morning, instead of doing as I usually did, I thought I would tie the pole to the tree, which was really unnecessary. While I stood there tying the string I instinctively felt that there was something about and glanced up. To my amazement there was the Goshawk, though it was not yet daybreak, close to the owl. I was now in a bad predicament, as my gun was thirty or forty feet from me, but, choosing a time when the hawk was farthest from the woods on one of his circles, I ran to my gun and got a long shot at it as it was going into the woods, but missed. Without doubt this Goshawk must have been sitting in a tree not far away and had seen the owl suddenly appear, for it was too dark for it to have been flying about.

Early in March one year I was taking a walk along the Palisades not far from Englewood, N. J., and saw what I thought was a pair of Duck hawks fly off the cliff and sail out over the Hudson River which was far below. Going back home for my camera and owl, I soon returned and followed a path along the top of the Palisades to the place where I had seen the birds fly. I had only just reached the spot and was standing there looking for a suitable place to put up the owl and blind, when I heard a call and up sailed an old male Duck hawk and perched on a chimney rock less than twenty feet from me. For at least two minutes, possibly more, he sat there looking from side to side,

up and down, and apparently did not see me at all, though I was standing up in plain sight. He at last flew away, so I got a makeshift blind made and put the owl up on a short pole that happened to be lying near by.

Aside from a few crows which did not like the looks of my blind, nothing showed up for about three quarters of an hour. I then heard the beat of wings, and a large female Duck hawk flashed by the decoy. Time after time she came in and struck, but her mate kept at a safe distance all the time. The female had a queer lot of calls; her most common one was a "kw-e-e-t" usually given three times, the last time somewhat shriller. Another call she gave sounded more like the noise an old barn-yard hen makes when well pleased about something; a rather plaintive, drawn out "kur-r-r-rie." At other times she called like a Cooper's hawk, only the cackle



A red-shouldered hawk

feet height, strike, shoot up away from the owl about two hundred feet, with wings outstretched and tail fanned out, then, as her great momentum ceased she turned over in the air and shot down at the owl and struck once again. The male Duck hawks very seldom come to the attack, but keep in the vicinity and seem to be afraid to come too close even when some one is near their nest. Occasionally they do strike, but not often, and it is another case of the female of the species being more savage than the male.

The Marsh hawk or Harrier as it is often called, is one of the shyest hawks, but is quite inquisitive. Floating around and about the open fields and marshes, they sometimes stop to flap their wings over some patch of bushes, trying to drive out mice or small birds, and then float on till they sight the owl, when they quickly make for it. Most hawks



Live great-horned owl watching a sharp-shinned hawk

feet a piece of coon skin that I had pasted on the owl's head in place of the feathers that had been torn off in previous fights and making a large circle, she then charged in again. As she struck she released the skin which fell near the owl so that I was able to pick it up for future use.

Without exception the Duck hawks are the swiftest and most graceful of any of the hawks that I have seen come to the owl and their appearance when flying shows that they have great strength. This, with their markings, makes them the handsomest hawk of any that we see in this country. Circling about, just previous to an attack, they keep up a continuous cackling, stopping only when they swoop and, with a loud swish of their wings, strike the owl with their feet. I saw one hawk shoot down from about a three hundred



The red-shoulder has just struck and the back of the stuffed owl's head can be seen falling

was shriller. These calls were given while sitting on some rock or old dead tree, and the cackle only given when flying about. Time after time she flew within twenty feet of me and it was a beautiful sight to see her turn and twist, sometimes with her great yellow feet extended in a position to strike.

I HAD one very interesting day when, after having had poor success at one blind, I moved a mile or so along the Palisades to where I knew another pair of Duck hawks had their nest on a ledge of the cliff below. It was entirely open at this point, as there was nothing with which to build a blind, so I just sat by some big rocks and put the owl on a short stick about twenty feet away. I was in full view, with my camera on my knees, when the female squealed and darted at the decoy. For at least twenty minutes she kept up the attack and apparently did not mind me at all, though I was changing plates and moving a good deal. When at last I stopped, owing to people coming along, the owl was pretty well torn up. Once when the hawk struck, she carried away in her



Duck hawk in the act of striking. She has swooped and is turning upward again. The great speed and quick turn is indicated by the spread of wings and tail

that I have watched, when they see the owl, act as if they get their eyes focused on it and do not see anything else. The Marsh hawks, however, are more like crows, as they are continually on the lookout for danger, so a hunter or photographer must be well concealed. Usually they come close to the owl once or twice, then go on about their hunting and I have never had one strike, though I have heard of their doing so. These hawks are considered by the authorities to be on the border line of being beneficial and some think they should be left alone, but when they run across a well stocked game preserve on their wanderings, they appear to forget their real diet, of mice and such things, and do as much damage as the hawks which are acknowledged "killers."

The little Sharp-shinned hawk is one of the worst offenders that we have, but, owing to its small size, it confines its murderous acts to small song birds and only occasionally kills game birds. He will dart about and squeal and try to

(CONTINUED ON PAGE 432)



The cooking outfit



Silently gliding along picturesque shores



Handy bags for provisions

FRESH WATER CANOE CRUISING

SUGGESTIONS FOR THE INLAND WATER CANOE TRIP IN WHICH OBSERVATIONS ARE MADE ON WHAT TO TAKE ALONG AS WELL AS ON WHAT IS BETTER LEFT AT HOME

By LIEUT. WARREN H. MILLER, U. S. N. R.

THERE are two kinds of canoe cruises, both of them splendid outdoor recreations. First, the lake and river cruise in the open canoe, with the paddle as motive power, and, second, the decked sailing canoe, where the paddle is of secondary importance and a pair of bat wing sails eats up the miles of distance between you and your destination. Both are fine sport, and both constitute the easiest form of travel in the open. Do not take along the sails unless you are going to have plenty of use for them, as they are heavy and much in the way in stowing duff; and, do not take an ounce more weight, in any case, than is positively necessary.

I would set a limit of fifty pounds of belongings to every one on the trip. Even if there are only trifling portages, such as lifting over down trees, around obstructions on the banks or over dam sites too much duff becomes a burden, and when afloat its weight brings the canoe dangerously low down in the water and puts a lot of work in paddling on the voyager's shoulders. The same canoe that will fly along like a fairy when properly loaded will act like a submerged turtle when a wee bit overloaded. And it is so easy to take too much! One of my first canoe trips was nearly spoiled by just this duff trouble. We both swore ourselves black in the face that not a pound extra would be taken, but this is what we actually did take: For guns we took the shotguns, as a matter of course, and, as if that was not enough, the rifles (in case any long range shots might offer) and then piled on that a revolver each (for snakes and turtles) ammunition in generous quantities for the three—let's see, that makes 26 lbs. of extra, useless weight, not counting the

shotguns, which are doubtful commodities on a summer trip and apt to get you into trouble with game wardens, as snipe are the only game birds shootable in September when we went. Then, as we *might* have a few miles of sailing, we took along the sail—25 lbs. more, mostly in the way, and only used once, for we had head winds on all the other open stretches. Then we took along a sack of potatoes when we knew well we would pass lots of farms, another useless 20 lbs. of weight—the wonder to me is that she floated at all when we set forth! As it was she had just three inches of freeboard and was as logy as a water-soaked tree-trunk. Well, we had a strong northwest wind to face the first thing, five miles of it. Did we hoist the sails and tack? We tried it, but were so heavily loaded that we made as much leeway as headway and finally ended by paddling the whole distance, arriving by nightfall where we had allowed but three hours on the schedule. All the blankets, and duff were soaking wet from water shipped aboard off whitecaps, and we were half the night drying them out so we could get off to sleep.

Our first portage was a hummer! Only around a dam, maybe one-eighth of a mile, but it took five trips to do it

—firearms, bedding, grub, cook outfit, tent and sails (now soaking wet and all weighing twice what they would dry). Again tribulation camped on our trail when we struck long reaches of shallow water. She drew so much that we both had to get out and wade, towing her up-stream. The end of the second day saw eleven miles of progress and 150 miles to go. On the third day we passed under a railroad bridge, went into camp and shipped back home by express sails, guns, ammunition, spuds, etc., and kept only the fishing tackle, tent, bedding and cook outfit with a few provisions. Then we made easy progress, but our bad start cost us two days fishing at the lake we were headed for.

This little sketch of how *not* to do it brings to mind several points taught us by hard experience. In the first place everything in a canoe that water can hurt *must* go in a waterproof duff bag, either side-opening or end-opening. For clothing, blankets, tent, etc., the 11 x 22 inches brown waterproof end-opening duff bag, costing a dollar, is the thing. It will take folded blankets, tents, etc., easily and they can be pulled out without trouble. For food, the side opening bag 8 x 22 inches, with rows of pockets inside is best. When you go ashore for the night encampment, drive in two upright stakes to windward of your cook fire and hang up this bag by the grommet holes in the lip put there for that purpose: All your main food sacks are in plain sight, in rows along the bottom of the kitchen bag, where each can be chucked back as used, and in the pockets are small bags of salt, tea, baking powder, soup powders, etc., while the knives, forks, spoons chain-pot-hooks and the like are handy in the top pockets. This duff



Off for a fairy trip through Nature's lanes of travel



The delectable meal



Threading narrow water courses



Thinking it over in camp

bag has a stout maple rod sewed into one lip, and, to fasten it up you roll the other lip around this rod until the bag is rolled tight and then secure with rope around the bag or a pair of school book straps. As they are rather expensive (\$3.00) to buy I will give you here the way to make them yourself. Get a yard of ten-ounce brown paraffined duck canvas at a ship chandler's or awning maker's. It costs forty cents a yard and comes 28 inches wide. Cut off a six-inch strip along one edge, and out of this strip make two circular ends for your bag, 8 inches in diameter. Get a ½-inch maple dowel from a hardware store and cut it 22 inches long. Sew a hem along both lips of your bag and slip the rod into one lip and secure by sewing over the end of the hem. Now sew the circular ends half around to the ends of your bag and fill in the rest of the space with a khaki end cloth, as shown in the pattern, finishing the whole thing with an edging of gray tape. Sew inside two khaki strips, 8 inches wide by 30 inches long to make two rows of three pockets each. Each pocket will take ten inches of your cloth, the back of the pocket being the wall of the bag. Put two school straps around the bag, about a foot apart and join with a strap riveted around each of the two straps to make a carrying handle, or, just get a ten cent shawl-strap at the five-and-ten-cent store and use it in lieu of the school book straps. Total cost; canvas, 40 cents; khaki, 20 cents; straps, 10 cents; all together, 70 cents. One bag will hold all the food four men will need on a week's canoe trip and keep it dry and handy to use. For food sacks the standard sack for bulk is 8 inches diameter by 10 inches depth and they cost fifteen cents each. To make them yourself, get from a sporting goods store two yards of paraffined muslin, cut out 8-inch round bottoms, and 10 x 24-inch sides, sewing the sides around the bottoms and turning inside out. It can all be done on a domestic sewing machine using a heavy needle and No. 40 cotton. Finish the food

sacks with a foot of white tape sewed up near the top of the bag for a tie string. You will also need three plain rectangular 4 x 9-inch bags, and four small 3 x 6-inch bags of the same paraffined muslin. To make paraffined muslin yourself, buy the ordinary unbleached muslin and steep in a mixture of a pint of turpentine with two bricks of paraffine dissolved in it. It will not dissolve cold but if your tin can of turpentine is warmed in a kettle of hot water it will dissolve the paraffine readily. Hang the muslin out to dry after soaking in the solution.

The large food bags are to be marked *Rice, Flour, Sugar, Oatmeal*; the 9 x 4 inches *Corn Meal, Prunes, Coffee, Pancake Flour*; and the small 3 x 6 inches *Tea, Cocoa, Salt, Raisins*. Milk goes in its own cans of evaporated cream; eggs in a 3 x 5-inch tin can with friction top (holds 14 fresh eggs broken into it); potatoes and onions in an ordinary muslin flour sack, meat, bacon, butter, etc., in 8-inch friction top tin cans costing 25 cents each, two will be plenty. All these provision bags except the spud bag, will weigh all told for a week's cruise about thirty pounds and make about 150 pounds of cooked food. Rain and spray, upsets and hard knocks will make no difference to the grub pile; it is the only way to stow and carry food in a canoe.

THE cook kit to be taken along may be any of the well known outfits, such as the nesting aluminum set for four, the Forester, Stoppie, etc., or it may be a plain set of nesting tin pails

for 50 cents, three of them, one inside the other, a couple of fry pans and some 7 x 2-inch tin mixing and baking pans. Each man has his individual table set, of knife fork and spoon, cup and nine-inch tin or aluminum plate, and you will want a wire grate and a folding reflector baker or an aluminum one with cover, on which a fire can be built like a Dutch oven. The wire grate should have a cloth bag to pack it in as it gets very sooty and will soon get the rest of the things in the canoe dirty if stowed uncovered.

For a tent there are several special canoe types on the market, the Hudson Bay, Canoe Tent, and Forester being three types that have made good on long canoe trips where each night a new camp is made. You want something quickly and easily put up, with few pegs and few poles. Canoe cruise regulations call for a heavy meal at breakfast, an all-day paddle with a bite of lunch eaten in the canoe at mid-day, and a rousing feed at night. One usually looks out for a good site and a spring along about four o'clock, as camping and cooking after dark is a nuisance and takes away the pleasure of the cruise. Wherefore you want a tent that can be quickly put up almost anywhere. The Hudson's Bay tent calls for a handy tree and a pair of shears (for it is too much to ask to expect *two* trees to grow just the right distance apart with a level bit of ground in between them). The Canoe tent needs one short pole and two long rear stakes, and the Forester three ten-foot saplings. These are easy to find in any thicket along a lake or stream bank. All three

tents take eight to ten short pegs and are put up in ten to fifteen minutes' time. Never pitch on a sloping ground site unless the slope runs from head to foot of the tent; a side slope is very uncomfortable to sleep on, and the man farthest uphill will be continually rolling down on the others in his sleep. One of the party puts up the tent, while the others get night wood, water for the cookee, and browse for the tent bottoms.

The man elected
(CONTINUED ON
PAGE 433)



A well chosen camp site adds much to the enjoyment of the trip

The Secret of Alligator Bay.



BONE FISH—EVERY
ONE BETTER and BETTER.

We Follow the King Party Through the Final West Coast Trails of Its Remarkable Expedition, and Bring Up Sharply at Alligator Bay. First View of a Large Rookery. The Sinister Barriers of the Jungle. Where the Tarpon Are at Their Best. Strange Night Camps in the "Stay Out" Country. A View of Old Fort Harrell.

IT was really an old map, an ancient and honorable map, a map that had been handed down from one generation of Chokoloskee traders and hunters to another, that whetted Mr. King's appetite for a visit to Old Fort Harrell.

He had seen it on the crude counter in Smallwood's store, as that angular monarch of the shell-mound island told of the glory that was once Florida's. This "Old Jeff Davis" map, as it is called, has great historic interest as we have intimated, it being one of the first and

They stood as a mute testimony to the ravaging work of time which brings all of man's creations at last to dust.

There were tracks of deer, of the small red Florida breed and indications that mother and doe had pattered along under the damp leaves of a friendly hammock, on their way to the prairies, but actual sight of them was not gained, to Hendry's disappointment.

White, red and black bays were everywhere in evidence and multitudes of birds along the narrow river. Snake-birds, Louisiana blues, wood ibis and ducks, until it seemed cruel to even blaze away at them with rifle or shot-gun. Of mallards there were enough to satisfy the

By
W. LIVINGSTON LARNED

perhaps only in a primitive study of a primitive country. A.A. Humphries, of the U. S.

Engineers, had put this invaluable information on paper, and there, in an obscure corner, was a cross-mark that stood for the famous fort where brave men had stood guard through long and lonely vigils that the Seminoles might understand they could never have their own unchallenged way again. And now that the travelers were actually on the ground, after a picturesque jaunt up Sweetwater River, there was little to see save the solitude of hammocks and marshy ground stretching away into misty perspective, and ridges of rotted wood where once had been fortifications.

most impatient duck hunter. At every muck hole they hovered in colorful, fluttering groups, unafraid, even at the near approach of the party.

"It is too late to even attempt making the boats before nightfall," said Mr. King, "we will proceed down stream until sunset and then select a likely camping site. It is difficult enough to navigate these rivers in broad daylight. I have no wish to tackle them after dark."

Hendry, John Jr. and the two strangers were for pushing right ahead, as they descended the Sweetwater, but Mr. King was unbending and finally they stopped at a little point where the stream was some twenty feet wide and the thick hammock could be cut away with comparative ease, when all five swung their machetes and hatchets.

"The birds seem to like this place of ours," exclaimed John, as he stood with his father at the extremity of the point. "there must be a dozen varieties and hundreds winged over the bays as we approached. Do you suppose it's a nesting place?"

For answer, Mr. King led John down to the water's edge and pointed to the tangled snarl of mangrove and bay roots.

"There," said he, "is the answer to your question; Hendry will soon be bait-gathering, if I am not very much mistaken."

Falling to his hands and knees, the boy scooped into the shallow water.

"Alive with crawfish!" was his exclamation, "I never saw so many in all my life. The water and roots are swarming with them. So this is what attracts the birds?"

"They are very fond of this delicious relish," his father smiled, "and Sweetwater River seems to grow them as large as plump shrimp. Look Son, up and down stream, as far as you can see, it is one living mass of crawfish. Something in the rock formation of the soil and the bed of the river here have made it a natural breeding ground."

John was fascinated by the sight and nets were made, with which Hendry and the lad dipped up enough for the next day's fishing. This operation was accomplished in a surprisingly short time.

The Gulf Rangers

PART 10. Conclusion



THE ENTRANCE TO
ALLIGATOR BAY.

WHILE the camp fire was being lighted under the bays, there was a sudden whirr of great wings and a big blue heron swooped down, almost on top of the busy campers. That very tree was obviously its roosting place and it did not intend to allow mere man and a wreath of smoke to interfere with its accustomed habits. It was such a gorgeous specimen that John shot it and later on prepared it for his specimen box.

This incident was enlivened by one even more significant at dawn, after all hands had spent a rather restless night. Despite the nets, mosquitoes and crawling things of all kinds managed to keep the party hustling.

Hendry was scouting back in the hammock, when he called to the others to come quickly. They discovered him bending over a pitiful white object in the brush. It was a bird of large size.

"Egret—lady egret," the guide grunted, "somebody shoot wing—see?" and he held up a limp mass of dirt-soiled feathers.

Mr. King spent a half hour examining the beautiful specimen and they later put it to death, that its suffering might be over. The wing had been shattered by buck-shot!

Little was said at the time, but John and his father exchanged glances and their thoughts turned back to those posted streams, beyond whose blockade of fallen trees no stranger was supposed to go.

Down the Sweetwater they cruised, immediately after breakfast and upon entering Chevelier Bay decided to work in and out through the maze of small wooded islands, keeping always to the eastward. The silence was what impressed them most—that strange, uncanny silence, and the solitude of mile after mile of luxuriantly foliaged waterways. The water was too shallow, for the most part, to do any fishing, for they poled the small boats between mainland and fringes of bay hammocks, where there was barely enough, at this tide, to make progress possible.

"I feel like another Robinson Crusoe,"

John exclaimed to his father, as herons darted up from the projecting stumps and 'gators slid off into murky pools, "You'd scarcely think that man had ever traversed these waters before."

"You may safely put yourself down as a juvenile Henry M. Stanley, of this part of Florida," his father retorted "even the Indians, I fancy, do not take the trouble to rummage around here and I am fairly certain that the Watsons, in their most active days, never went so far from the easier, beaten canoe trails. But tomorrow, Son, we shall know the real truth about our Chokoloskee rumors."

"What do you mean?" the boy demanded, looking up quickly.

"Be patient . . . you will see."

It was four of the clock P. M. when they poled over to where the larger boats had been left.

En route, Hendry and John had been unable to resist the temptation of innumerable oyster reefs and bars and, for their part, they were content to make a supper entirely of splendid, big bivalves, roasted until the muddy shells yawned.

THE camp managed to have a laugh at Mr. King's expense and it came about in this way: After the others had retired, the "Big Chief" went out on the deck of the *Mae* for a last smoke. The air was heavy with the perfume of orchids and flowering shrubs. Countless birds along shore, which at one point was not more than fifty feet distant, had finally composed themselves and had left the serenading to giant frogs, the croaking 'gators and other

sleepless vigils of the shore and hammock which make the tropic night so musical.

There was no moon. A single lantern, suspended a stern, provided the one spark of life in all this vast expanse of night and wilderness.

Over in the direction of the nearest bay and mangrove hammock, the quick eyes of the surveyor-sportsman detected a glint of light. It flashed, it glowed, it seemed to blink at him with sinister intent. But of greater moment was the undeniable fact that it was approaching—coming nearer every second, as he watched.

For fully five breathless minutes Mr. King did not move. His gaze was concentrated on that infinitesimal glow across the still waters of Chevelier Bay. Now it could not be more than ten yards distant, and steadily shortening the span between boat and mainland. Thoughts crowded in upon the man on deck; they had been absent from the *Mae* for two days, both Shark River and Chokoloskee sent envoys up to Chevelier, even the Indians were there with a purpose, and visitors were never welcome! Every soul on board could be murdered and the boats rot down to the water's edge up that far West Coast water path,



The rookery in Alligator Bay. A very rare photograph

without the facts becoming known.

Tip-toeing down to Hendry, he awakened the guide and together they returned to the deck, with their rifles. By this time, the gleaming dot of light was scarcely ten feet from the stern of the *Mae*.

"Maybe 'gator," whispered Hendry.

Mr. King aimed his rifle.

"Who is it—halt!" he cried.

But just then the guide broke into a hearty laugh, which brought the others pell mell out on deck. With that, Hendry reached alongside with one of the poles. There was a metallic clink as he deposited something at Mr. King's feet.

"An old meat tin!" was his abashed exclamation.

It was then that the good-natured campers engaged in a fusilade of banter.

"Nothing like a night watchman on the job," John grinned, "just suppose that awful thing had climbed aboard and bitten one of us."

"The incident is of scientific value at any rate," his father parried, "it shows that there is practically no variation of water up in the bay, yet there is four feet of tide in the ocean, outside, and six inches in Chevelier as it works up Chatham Bend River. That milk or meat tin was thrown overboard by me at this place exactly two days ago, and here it is. But go back to bed you minstrel troupers. If a boa constrictor clambers aboard some night I will not fire a shot."

BEFORE the sun was up an hour, they were all out on the open bay, trolling for tarpon. Hendry had agreed that there were fine ones in Chevelier at this likely and somewhat deeper spot. Their two new-found companions tried it alone, in their own dory, while Hendry and John used the motor boat. Mr. King was less interested in fishing than in a further study of soil and vegetation.

The results were less gratifying to the original party than might have been desired. For Roy and the red-bearded stranger, after a fight that lasted over an hour, finally landed a magnificent tarpon. Hendry and John caught nothing. The guide claims to this day that it was

fate and the boomerang effects of lending one's favorite "lucky" line to "poor white trash." Roy had borrowed Hendry's pet outfit—and that was what hurt the most.

Mr. King called them in at eleven and stores were put in the small boats again for another run down the bay. It will be noted that on these expeditions the strangers were invariably urged to come along. Mr. King, while he was beginning to trust the newcomers was unwilling to leave them alone on the *Mae*. Why tempt fate?

They followed the west bank of the bay, passing through several little inlets, straits and channels between the many islands, and at the expiration of an hour, had come to the southernmost end of Chevelier. Here a channel led further southward between stately lines of bay and mangrove, over which masses of morning glory vine were draped. It was a rarely beautiful stretch of narrow

passage that suddenly opened upon a little fairyland bay, with water some four feet deep and crystal clear.

This place was a natural playground and feeding rendezvous for ducks and coots. As the boats glided out of the passage and into the open area their occupants made no attempt to conceal their surprise. Hundreds of ducks were either waddling along the marshy shores or resting upon the cool, shaded breast of what seemed to be a baby Chevelier Bay. Before his father could check him, for Mr. King had reasons of his own for not wanting to shoot, John had blazed away with a shot gun, and the lagoon echoed to a thousand thundering reverberations.

"Poor shot," the boy growled, as Hendry shrugged his shoulders, "not a single kill and only one duck that felt the force of my argument. I'll get that beauty or know the reason why."

His father was with him in the glade boat and he poled rapidly across the tranquil waters in the direction of shore, where, in a patch of lilies and grass, a fluttering object was discernable. This had unexpected results. The moment the pole and the skiff struck the shallower water, there was a vigorous commotion on all sides.

"Alligators!" was John's shout.

"Their holes and nest-mounds must be in this vicinity," said his father, "guess you'd better give up the duck-hunt. The bird is doubtless inside one of those ugly fellows by this time in any event. This is no place for us or for a light glade skiff."

No less than thirty 'gators of all sizes were counted and Mr. King managed to kill one with a well-aimed rifle shot. The specimen was four feet long and Hendry skinned it on shore, with all hands watching those nimble, experienced fingers of his. (The mounted alligator brought

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Fresh meat in camp means that outdoor appetites will at last be wholly satisfied.

CLEARING UP STREAM POLLUTION

EXTRACTS FROM AN ADDRESS DELIVERED BY THE HON. GEORGE D. PRATT AT A RECENT MEETING OF THE NATIONAL ASSOCIATION OF FISHERIES AT NEW HAVEN, CONNECTICUT

"WHEN I received a letter from the president of this association asking me if I would deliver an address at this annual convention, I cast about in my mind for a subject particularly appropriate for a meeting of the National Association of Fisheries Commissioners. There are, of course, many phases of the work of the Conservation Commission that are of interest to an organization of this sort, but it has seemed to me that the one of most transcendent importance to the fisheries interests, upon which we are now engaged in New York State, is that of the gradual elimination of stream pollution.

"I might readily consume the entire time allotted to me with a discussion of the extent of pollution in New York State, and might without exaggeration indulge in oratorical flights of any extent regarding the evils that are only too apparent upon practically every watershed. Such a philippic, however, would never get us anywhere. Indeed, I am inclined to believe that the various efforts to improve stream conditions in various parts of the country have too often been mere flashes in the pan, because whatever energy has been expended has been consumed in deploring the situation without corresponding constructive action. Certainly I do not need to tell the National Association of Fisheries Commissioners what a tremendous handicap stream pollution is to their work, and how important it is that some effective steps be taken immediately to check its increase, and to set the tide running gradually in the opposite direction.

"Many difficulties stand in the way of substantial results. We must not forget that the highly complicated industrial fabric of this country, and particularly of such great manufacturing states as New York, has been a matter of steady development for the last hundred years. Industry is the very life of the State, and whatever we do to eliminate pollution must be done with full recognition of this fact. Accordingly, we must not start out upon any campaign to tear down.

"The growth of industries has been determined very largely by the water courses. This is true because the larger streams provide transportation for manufactured products while others, sometimes even the smallest, provide power for running the factories. This has concentrated the industries upon the water courses, and it has been most natural that in the absence of regulation to the contrary, they should utilize those courses for disposing of their waste product. The rights of industries to utilize water courses for transportation and for power are unquestionable, and very justly so. But it has been maintained by some that they have an equal right to dispose of their waste material through the same

channels. This is an argument, however, which is entirely erroneous, because, while it is true that by utilization of the stream for transportation and power, the rights of individuals and of the general public are in no way infringed, pollution frequently works very serious injury upon all those people upon the stream below, and also upon the general public. Sometimes this injury is very positive, direct, and tangible, as when chemical substances render the water unfit for use in boilers or actually attack the hulls of vessels. The water in streams is frequently made harmful to live stock, and sometimes even fatal to it. We all know, however, that, from the stand-



A quiet country stream

point of municipal water supply, pollution of the stream from above is of quite secondary importance. We may take our water supply even a short distance below the outfall of a city sewage system, as many municipalities do, filter it, sterilize it with liquid chlorine, and quite comfortably dismiss it from our minds as entirely innocuous. I think you will agree with me that it is sometimes well that we can so dismiss it.

"The fish, however, have no such easy time of it. Pollution kills them outright, or it drives them away, or it spreads a deposit of poisonous or other injurious substances over their spawning beds until reproduction is checked or entirely prevented. In very many cases it destroys the small aquatic organisms upon which the fish feed, which is only another way of destroying the fish themselves. Great stretches of our waters have thus been

transferred into actual biological deserts, with the process still going on almost unabated. In some instances fish living in polluted water become so impregnated with the polluting substances that they are unfit for food, and therefore useless. It is with the effect of pollution upon fish life, and with methods of eliminating it from the waters, that we are chiefly interested here. I shall accordingly confine myself to a discussion of how we are attacking the problem in New York State.

"The New York State law provides that 'No dyestuffs, coal tar, refuse from a gas house, cheese factory, creamery, condensery, or canning factory, sawdust, shavings, tanbark, lime or other deleterious or poisonous substance shall be thrown or allowed to run into any water, either private or public, in quantities injurious to fish life inhabiting the same, or injurious to the propagation of fish therein.' Another section provides that no sewage or substance injurious to oyster culture or fish shall be placed or allowed to run into the waters of the marine district. The administration of this law is in the hands of the Conservation Commission.

"Until recently we have felt in the office of the commission that this law was very inadequate, and that it permitted us to take action only in the grossest cases, where fish were visibly killed. In those cases our method has been to make a minnow test, by placing minnows in a wire basket both above and below the point of pollution. If the minnows below were killed in a short time, usually a matter of minutes, while those above continued to live indefinitely, we took this evidence into court and obtained a conviction and a fine. This method left the great majority of cases of pollution entirely untouched, and the fines really profited us nothing. The action was chiefly that of penalizing those who were so unfortunate as to have their results become spectacular, while others whose injury to streams was as bad or worse, though unproved, went unscathed. Such action was not progressive. I, therefore, decided that what we needed was a strong, constructive, vigorous campaign to clear up stream pollution, rather than to penalize a few of the offenders.

"The first requisite seemed to be that of getting preliminary control of the situation. We needed to study the fundamentals of the problem as a basis for rational action. Because of the scientific difficulties that beset us, I felt that I was particularly fortunate in being able to secure the services of Prof. Henry B. Ward, head of the Department of Zoology of the University of Illinois, whose attainments are so well known to you all. Professor Ward himself was in rather a dubious frame of mind, when he arrived after our preliminary arrange-

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HOW TO IMPROVE IN BAIT CASTING

PASSING ALONG SOME INFORMATION OF PRACTICAL VALUE TO THE BEGINNER
AND TO THE MAN WHO HAS BEGUN BUT FINDS THAT HE BEGAN WRONG

BY GEORGE S. BROWN

I HAVE done so much bait casting and read so many articles on the sport that there are times when I almost feel sure that every fisherman is efficient in this line. At times I almost begin to think that another article on the whys and wherefores of this especially attractive and effective method of luring game fish would be superfluous. Then when I arrive at the point where I am nearly sure that the foregoing is a fact, something happens and when I recover from the hypnotic state that I fall into, I discover that I have added a new member to the crowd who spurn all baits other than artificial ones. Yes, I return from a trip after bass and as I lay a couple of good ones on the grass where the live bait fisherman can see them without straining his eyesight, he gets interested and so do I.

If there is anything good in the sport-fishing line, it surely should be passed along. Bait casting is one of the good things. "Smiling Bill" Vogt passed it to me, and to the day when I make my last cast, there will remain in my being a great kindness for the chap who put me next to the sport where in the short rod takes an equal rank with the firearms in the sportsman's cabinet and in his estimation.

What "Smiling Bill" passed to me, I in my turn have passed to many others. And when you initiate a fellow into the mysteries of bait casting, and do it correctly, you are in duty bound to exact some sort of a promise that he will always put back the little fish, be satisfied to take home but a small string, and also impress upon his mind that he must do his share towards helping to keep the fishing good by planting fish for future sport.

This article is intended for the beginner or for the person who has already begun but finds that he began wrong. There may be some who consider themselves nearing the expert line that *might* pick up a scrap of information from this article. If this does not prove to be correct, there is much pleasure to be derived from constructive criticism backed up with evidence. At any rate, I am going to talk to the beginner and with the memory always in mind of what puzzled me when I made a start at casting, I will do my level best to start the new man right.

If you are an absolute stranger to the art, your very first question will be: "Why take up casting, anyway?" And I will answer that the average fishing

trip is a pretty slow time. Waiting, waiting, waiting for a bite. And the bite you get is very liable to be given you by a helgramite you have let loose in the boat. You get sunburned. You get cramped. You get sore. You get a fish once in a while perhaps, if one takes a notion to start out and *hunt for your bait*.

Now, bait casting is not a waiting game if you play it right. Instead of dozing away in an anchored boat, you would be accurately shooting your artificial lure into every spot where a bass might be lurking. You would enjoy just being able to drop the bait where you wished it to go. *And best of all*, you would be *hunting for the fish*, not *waiting for him to come to you*.

Furthermore, the stringing of night-crawlers, and hooking of frogs, dobsons and crickets would be a thing of the past, for nothing but artificial bait should

ing there. I fished about forty-five minutes, and being alone, had to row my boat and cast as best I could. Numbers of fishermen had been there all day and the largest bass I saw them have was a two-pounder that I weighed for them. My short stay netted me four bass and they weighed as follows: 2¾, 2¾, 3¼ and a full 5-pounder to close the score. A total weight of 13¾ pounds for the four bass. A still fisherman would never have secured those four fish from that lake in so short a time if he spent a dozen seasons there. The reason why is obvious. Those four fish or any other four fish like them were not all in one spot. They were widely scattered and in the short time I was on the lake, I covered twice as much water as those who had been there all day.

One word more before I start on the outfit and how to use it; for I want you to be really sincere and a true convert.

If you fish in water that has never had any bait casting done in it—and there are many such places still—you are dead sure of lots of sport. Don't let anybody make you believe that bass in such and such a lake won't touch artificial lures. If there are any bass in a lake or river and you handle the artificial bait skillfully, you will get all that you or any other sportsman are entitled to. There are *off* days, of course, but there are *on* days, too, and plenty of them. Now let's get busy.



Shooting his artificial lure to every spot where bass might be lurking

be used. Your rod in a bag, and a tin box containing your reel and lures make up all the baggage you have to carry. And if you are at all familiar with the habits of bass, no still fisherman need worry you as to results. If you get at all proficient in handling your artificial lures, no live bait will take any more or larger fish than the wooden baits will, in the same waters of course.

Just to work up your enthusiasm a little bit, I will state that down here in the eastern part of Connecticut the bass are not so numerous that you can catch them in any old way at any old time. If you bring in four or five bass and amongst them have a three pounder, we consider that you have done very well; and you have.

In one of the numerous lakes where all kinds of fishing is done and done every day, I skipped over and tried my hand with the wooden minnow. I left the lake just ninety minutes after arriv-

THE first thing you need is a casting rod.

Any kind of rod will not do. If I were arguing with skilled bait casters, I might go into details about why you should get a rod of certain length and quality, but I am talking to beginners now; so I advise you to get a split bamboo, two piece rod of five and one-half feet in length. You can do no better than place your order for a good No. 4 Casting Rod, which will cost you about \$6.00. For a reel get a quadruple, multiplying *bait casting*. Now you cannot walk into a store and buy any reel that is a quadruple multiplying and do casting—that is, *real* casting. You have got to have one of the better grade, costing from 6 to 25 dollars. You cannot cast with any kind of line that you happen to get hold of. No matter how excellent the balance of your outfit may be, if your line is not adapted to bait casting, you won't cast worth mentioning. Get 100 yards of No. 4 Square Braid. After you have worn this line out, for your next one, get the same

brand, but let it be a No. 5 size.

Now for the lures. You want three baits to start with. Two underwater minnows so as to have one left if you are unfortunate and lose one. One surface lure for shallow water and where snags are plentiful. Regardless of what you may believe as to the proper color of lures, get the brightest you can find. I myself doubt very much if color has much to do with strikes. The secret of strikes lies not in the color but in the *action*. Bass don't bite artificial lures that are quiet. If you want a good selection, in fact, one that no other limited one can surpass, get the following: Surface Lure, White Body with Blue Snout, Nickel Collar. Underwater Lures: Minnow, No. "0," White Body, Red and Green Spots and No. 101, Rainbow. Both of these underwaters should be equipped with three treble hooks and two spinners.

The above three minnows—you need but two—will get the bass if anything will. It may happen that you would like a weedless lure to use in places where grass, lily pads, brush, etc., are very thick. The best thing in this line for you to get is one of the struggling mouse lures. This bait casts beautifully and is the nearest to being weedless of anything I have ever handled that would catch fish. You will miss many strikes on this lure but there is the satisfaction of knowing that without it, you would not be able to successfully cast into the weeds at all. Get the Red Head-White Body combination. State "Weedless" when you order so as to get the double hooks and not treble.

Now cut out a piece of wood about 2½ inches long and ¾ of an inch in diameter. In one end fasten a small screw eye, in the other end insert sufficient lead to make the block equal the weight of one of your underwater minnows. This block will be your practicing weight. Now we will find out how to do the trick.

GET out your rod, reel—on which you have carefully wound your new line—and the home-made casting weight. Rub a little oil on the rod slide-joint before inserting it into the ferrule and thus insure easy dismounting. See that reel seat and guides are in a straight line from butt to tip to permit free running of the line. Put on the reel as follows: Turn rod so reel seat is up. Attach reel with handle to the right when butt of rod points towards you. Run your line from reel to first guide and see that it passes directly to the guide from the reel spool without chafing on the reel. Thread the line through the balance of the guides and then attach your practice weight to the end of the line. Walk out on your lawn where you have a good clear space around you and above you as well. You will need plenty of room to start with, as it is a rather uncertain thing to know just where a beginner's cast is going to land.

Lay your hat or some other like object on the grass about thirty feet from where you intend to stand when you cast. This will serve for your target. Face the target. Have your right foot



Guide the line onto the spool as evenly as possible

slightly advanced. Grasp your rod, with the reel on top, in the right hand having all of your fingers underneath the grip but the thumb is to be on top. Grasp the rod butt close enough to the reel so that the ball of the thumb will rest on the spooled line on the reel. Remove the click so that the line will be free to run out easily if not checked by thumb pressure.

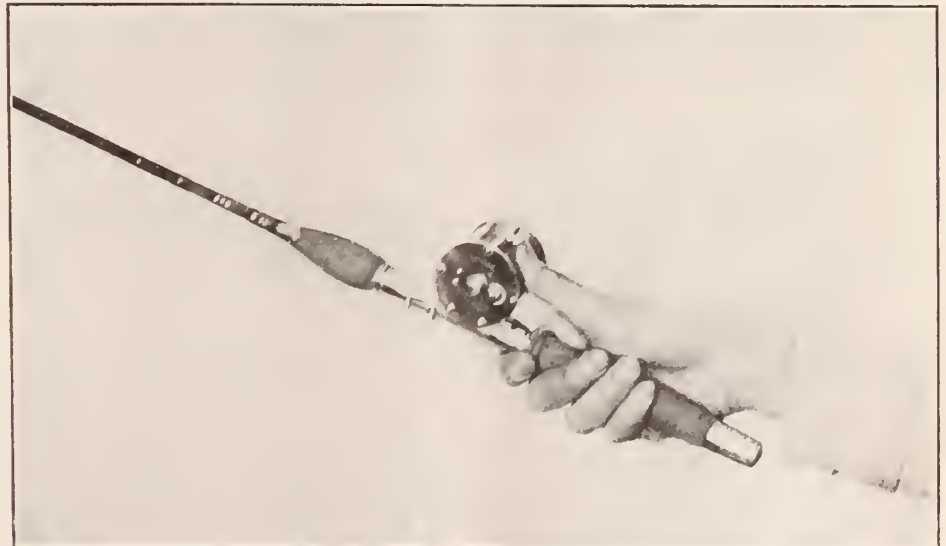
Now let out enough line so that the weight will dangle about four or five inches from the rod tip. Extend the arm straight out, pointing the rod at the target on the grass. As you stretch out your arm, turn the wrist anti-clockwise until the reel spool is vertical. This movement will bring the reel handle on top and allows the spool to rest on the end bearing at the click-end where it will revolve the easiest.

Bring the rod straight back over the right shoulder until it forms an angle of about forty-five degrees with the ground in back. Let it rest a moment

until the weight stops swinging. Your right hand will be up near your right ear. Keep your eyes on the target all of the time. Now with increasing speed, bring the rod straight forward over the shoulder in a direct line with the target and yourself. Keep your thumb pressed down hard on the spooled line to prevent any line running out until the rod, in its forward movement, is about vertical. Then release the thumb pressure and the weight will shoot out. Don't stop the swing of the rod but keep it swinging until it is pointing a little bit above parallel to the ground in front.

Keep the thumb just touching lightly on the line so as to offer a slight friction and prevent the reel from over-running and causing a backlash. Just before the weight hits the ground, press the thumb down hard on the spool and stop the line from running out any further.

You have made your first cast. There
(CONTINUED ON PAGE 426)



Let the ball of the thumb rest on the spooled line on the reel

JAMES ALEXANDER HENSHALL

THE AUTOBIOGRAPHY OF THE APOSTLE OF THE BLACK BASS,
FATHER OF THE GRAYLING AND DEAN OF AMERICAN ANGLERS

FOURTH PAPER

THE estuary known as Spring Garden was a convenient and popular resort for bathing, fishing and boating for the people, old and young, of Baltimore. It was of an irregular, oblong form, and about two miles wide, when I was a lad, but has since steadily decreased in volume and attractiveness, owing to the encroachment of the city and various industrial activities. On the farther shore there was a resort popularly known as the "Fish House," which in modern parlance would be considered a combination of beach resort, road house and country club. It could be reached by water or by driving over a long pile bridge. It was much frequented by pleasure seekers, picnickers and fishing parties, where they feasted on "all the delicacies of the season," including oysters, fish, soft-shelled crabs and terrapin. Its cuisine, as I realized in later years, would not suffer by a comparison with the Maryland Club, of Baltimore, or Dorlan's, of Fulton Market, or old Delmonico's on Fifth Avenue, New York.

While fishing in Spring Garden one day Johnnie and I were bragging about our prowess in swimming which ended finally in a wager whereby we were to attempt to swim from Bailey's to the Fish House, about two miles, as just stated. The terms, mutually agreed upon, provided that we would be accompanied by a referee in a row boat, who would carry our clothes, and be ready and handy to take in out of the wet the one who gave up the contest. The stake was to be a dinner at the Fish House for three, to be paid for by the loser. Accordingly, the next Saturday the referee, an older companion, a high-school boy named Robert and ourselves started in a boat rowed by Robert from Bailey's wharf, and to preserve the conventions of custom and to satisfy the social amenities, he rowed several rods from shore before we divested ourselves of our clothing.

At that time the legitimate drama was in the ascendancy; vaudeville and moving pictures were unknown and opera bouffe and burlesque blondes had not been heard of. Boys who attended theaters were more or less familiar with tragedy and melodrama. Johnnie and I had frequently sat spellbound under the ravings of Edwin Forest Gus Adams, the elder Booth and other famous tragedians. So we considered it a matter of course and one quite appropriate to the occasion when the referee Robert dramatically declaimed:

"Dar'st thou, Cassius, now

Leap with me into the angry flood,
And swim to yonder point?"

Then descending from his Thespian high-horse to the water level he vociferated:

"One for the money; two for the show; Three to make ready, and four for the go!"

At the word "go" we plunged in head-first and the game was on.

We were both well fit and started off in fine fettle, swimming easily and abreast of each other until half way over, when both began to lag and to resort to the expedients of swimming on the back, floating and "treading water" to rest ourselves. We were beginning to tire and would gladly have welcomed any excuse for calling the match off; but we were also both game and stuck bravely to the task.

I remember looking grudgingly at the referee rowing leisurely and comfortably along, gracefully feathering his oars and bantering and encouraging us by turns.



A leaping black bass

I thought how willingly I would have paid for the dinner could I have changed places with him; but our mettle was up, and both Johnnie and I seemed determined to abide the issue if possible. Johnnie was fortified by having eel-skins tied about his ankles to ward off cramps, so there was nothing for it but to continue to the bitter end. Then, at last, not a minute too soon the boat grounded on the beach at a secluded spot, when the referee helped us both ashore, where we threw ourselves, dog tired, on the grassy bank.

It was quite a creditable performance for two ten-year-old lads; the distance was greater than that at the Dardanelles where Leander nightly swam across to meet his sweetheart Hero. And Leander's stunt was achieved also by Lord Byron, though handicapped by a club foot, and without the hope of the prospective reward of a welcome by the fair priestess. And as Robert said, the feat of Johnnie and myself was a more

commendable one than that of the bold, bald Cæsar, who, after his bombastic challenge to Cassius, was soon forced to cry "Help, Cassius, or I sink!"

After resting we put on our clothes and rowed to the Fish House, where, seated at a table under a shady arbor, we regaled ourselves with a most satisfactory repast, the score of which, on the insistence of Robert, was settled by himself.

THE volunteer fire department of Baltimore, seventy years ago, was a very efficient organization, all things considered. Each company vied with the others to be the first to get water on the fire, and to do its level best to extinguish it. This commendable rivalry, however, sometimes engendered a bitter feeling.

After fighting the fire to a finish they proceeded to fight each other; so that the city authorities thought it necessary to confine the efforts of such companies to their own districts in order to prevent hostile meetings.

We boys, of course, in imitation and emulation of the fighting companies, organized ourselves into clans or bands, each occupying a dozen or more city blocks, which we controlled by right of possession. We rallied under various formidable names such as Tigers, Hornets and other pug-nacious appellations, and whenever two hostile bands met there ensued a well-fought scrimmage, or a more or less serious melee.

I was always pretty handy with tools, so several of my comrades and I built a miniature fire engine, the box being about five feet in length, two feet wide and a foot deep. It was painted a vivid red with black borders, and the name "Hornet" painted on the sides. I drew a plan for two simple piston pumps and an air chamber which I took to a tinsmith to make. The pumps were cylindrical, about three inches in diameter and a foot long, the air chamber being of greater diameter. The tinsmith looked at the drawing somewhat critically, and asked:

"Who made this plan?" I replied: "I did." Then he looked at me and then at the drawing again, and said:

"Where did you learn anything about force-pumps?"

"In my book of natural philosophy and physics, and by examining the fire engines when they were being cleaned after a fire."

"You would make a good mechanical engineer," he then said, and added, "I will make this job, and if it works I will charge you only for the material."

The "job" was a success, and to the admiration of the tinsmith it threw water onto the roof of his two-story shop. I

once saw in Constantinople a fire engine carried on the shoulders of half a dozen swarthy Turks, who ran swiftly with it down the steep incline of a street to the fire, which burned itself out before the machine was put in working order. I could not forbear making a mental comparison between that ineffectual apparatus and the old "Hornet" of the long ago.

ON special occasions, as on public holidays, the various up-town clans would unite for mutual defence and offence against the combined down-town contingents. On Washington's Birthday, especially, the united forces of up-town and down-town would meet by custom and common consent on the commons near the Washington monument, and after the military parade was over several thousand boys would engage in a pitched battle lasting all the afternoon. My scalp still bears the scars, honorable or otherwise, the result of wounds inflicted by sharp stones, dexteriously thrown, during some of these encounters.

The winter following the swimming match was an unusually cold one, and Spring Garden was covered with two or three inches of glare ice, affording fine skating for boys equipped with "high-Dutch" and "low-Dutch" wooden skates. A number of up-town clans buried the hatchet for the nonce and assembled on the north shore, while some of the Old-town and Sandy Bottom gangs gathered on another shore. All were armed with hockey or bandy clubs, with which we played a kind of golf with round stones on the ice. We frequently clashed with the enemy when chasing a stone across the dead line.

One day when the spirit of enmity was rife and ran high, our side made a sortie against the common foe to rescue Johnnie and another boy who were being clubbed by bigger boys. Unfortunately I was well in advance, for my blood was up, and I slipped into an air-hole and was carried a foot or two under the ice. I swam back to the opening, placed my hands on the ice to crawl out, but some of the Sandy Bottom gang were quickly on hand, and rapping my knuckles with their bandy clubs, and striking me on the head, pushed me under the ice again. This was repeated several times until I was completely exhausted.

Then Johnnie rallied our clan and rushed to my assistance, drove off the cowardly crew, and dragged me out, half drowned and half frozen. There was a good fire on the shore, where I dried my clothing, and, with the exception of bruised fingers and a sore head, Richard was himself again.

JOHNNIE and I had now become pretty fair sailors and occasionally on Saturdays we hired a small dug-out canoe with leg o' mutton sail and lee board from our friend the market fisherman at Spring Garden. One day we sailed out on the Patapsco beyond Fort McHenry with quite a fresh breeze, and were hailed by an inbound schooner:

"Boat-a-hoy! You young rascals come aboard or go ashore, or you'll be drowned; the wind's going to blow!"

To satisfy the captain we put about and headed for the Lazzaretto opposite

the fort, to a well-known locality that was famous for white perch fishing, and where the fish were exceptionally large.

After filling our basket with the game-some panfish we sailed about the harbor among the shipping, and then down to Canton and Fell's Point to gather specimens of rocks and stones from the discarded ballast of vessels from foreign ports. We were both the proud possessors of a collection of rocks, minerals and curios. Some pieces of rock we thought contained gold, but our teacher informed us it was "fool's gold" or iron pyrites. One day I found a piece of quartz containing some specks of the genuine article that had been cast ashore with other ballast by a vessel from California.

On another day we saw a very strange and remarkable sight. The war with Mexico had been declared, and the horses, canons and other equipment of Major Ringgold's Flying Artillery from Fort McHenry were being loaded on a ship bound for Mexico. The horses were being hoisted aboard in a canvas cradle which enveloped the body but left the



Where small boys love to congregate

legs free, and it afforded us much amusement to see them vainly pawing the air and kicking while in transit. The guns were small brass field pieces with trunnions, smooth-bored muzzle-loaders, apparently six-pounders. The battery was stationed at Fort McHenry and we had often seen the "fort soldiers," as we called them, mounted on horses, caissons and gun carriages during military parades on public holidays.

During the past few weeks we had seen the camp of the Mexican volunteers near the Washington monument, and were much interested in the drilling and dress parade of the infantry, and the evolutions of the dragoons and while we admired the warlike appearance of the volunteers, we would much rather have sailed with Major Ringgold's battery of regulars.

It did not seem very long after this that we witnessed a very sad sight which dampened entirely our military ardor for the time. It was the double funeral of Major Ringgold and Colonel Watson, of the volunteers, who had both been killed in action. We were much impressed but

more depressed by the sad spectacle. The coffins were mounted on caissons draped with Old Glory, with the swords and military hats of the dead heroes, surrounded with wreaths of flowers, resting on the caskets.

But the saddest sight to me was the riderless horses led behind the coffins with reversed boots swung across the empty saddles, and the military escort with reversed arms. I was so much affected by the mournful spectacle and the doleful funeral march played by the band that tears started to my eyes, which I was surreptitiously trying to wipe away with my handkerchief, when a gentleman standing beside me said:

"Those tears, my boy, are a credit to you; don't be ashamed of them."

When I stole a look at Johnnie, tears were dropping from the end of his nose, and I came near spoiling it all by laughing outright.

NOW-A-DAYS boys can buy sleds, wagons, bats, balls, kites and all other articles for sport or play, ready made in the shops. In my day boys had to make their own or do without for none were on sale. I exercised my mechanical skill in various ways. I made long-bows, and cross-bows, in the use of which Johnnie and I had become somewhat expert. I was acknowledged to be the best maker of kites and air- and fire-balloons in my neighborhood. I made bow-kites, star-kites, diamond-kites and eagle-kites, in addition to the common standard hexagon-kite. Moreover, every kite fashioned by my hand was warranted to be raised, or "flew," from a standing start, that is, without running with it a short distance against the wind to put it up; and this feature came very near costing me my life. I was flying a kite from the roof of a shed and backing a little too far toward the edge, fell into an excavation dug for a cellar, striking the back of my head on a large rock that had not been removed. When discovered I was unconscious, but still grasping the kite string, while the kite was sailing gracefully aloft over the house tops.

I once made a hexagonal kite as large as an ordinary door, which one day, owing to a freshening of the wind, took possession of both Johnnie and myself and pulled us over a low fence and kept us on the trot until we were able to take a turn or two of the twine around a convenient post. Another time I made a round paper lantern which I attached to the tail of a kite and with a short piece of lighted candle within it, the kite was sent aloft on a very dark night. We caused the strange star to indulge in a series of erratic and eccentric movements, until finally, by a premeditated, violent jerk the candle was dislodged, setting the lantern a-fire, and the blazing meteor disappeared in a flash of flame. It caused considerable comment and consternation in the minds of the credulous, and the strange star was the gossip and wonder of the neighborhood for weeks afterward. But Johnnie and I kept our own counsel, well satisfied with the excitement caused by our ruse, which in a manner was almost as great as that produced by the long tailed comet of such bitter memory.

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ANGLING FOR THE STRIPED BASS

THE ALLURING SPORT OF SURF FISHING ALONG THE SHELVEGE OF BEACH
WHERE THE BREAKERS POUND AND THE AIR IS KEEN WITH THE TANG OF THE SEA

By LEONARD HULIT, Associate Editor of FOREST AND STREAM

TO the striped bass must be given, if to any of our coastal fishes, the title of gentleman among his tribe. Pæns of praise have been sung to the lordly salmon of the cascade and mountain stream, and to *fontinalis* libraries of books have been devoted, to illustrate the glories of his quest and conquest and it may justly be said that nothing has been said of him that cannot find warrant for the effort.

While the bass is usually regarded as a coast and estuary fish exclusively, the truth of the matter is far different, which careful research has fully demonstrated. That the bass ascends our rivers to great distances is now a fully established fact, while strong assertions to the contrary were prevalent not so many years since and from the pens of men who should have been more careful of positive statements. Both personal experience and close inquiry have so fully established the fact of their wanderings to fresh waters that it will no longer admit of question, and that many of the mature fish pass many months of the year in water entirely fresh is amply proven.

Whether or not this fish really hibernates during any period of the year is still a matter for argument as well as research. That they do congregate in large schools and are frequently taken in nets under the ice is unquestionable. This usually occurs where mossy bottoms are found and would lead to the conclusion that hibernation was taking place among them.

Still, at the same time, individuals may be taken on the troll in water near by, thus disputing the above theory of hibernation. And it is well known that the fully mature fish are rarely or never found under such conditions, but are of course netted in the open waters during the greater part of the year.

As a food fish the striped bass ranks

with the best on our continent and, however served, is always a welcome dish to all, whether in the banquet hall or on the table of the humble toiler of the sea.

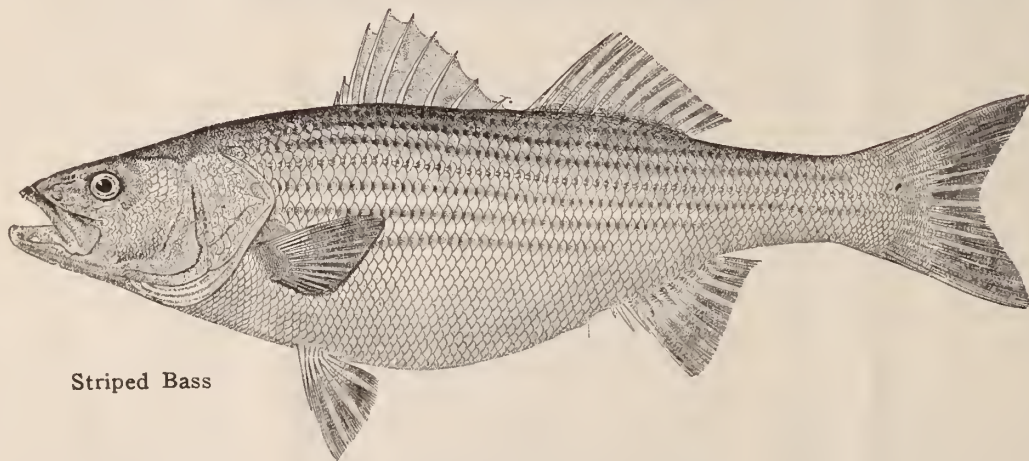
Many curious legends are still extant, handed down from the days of long ago, telling of the great abundance of this fish, and of enormous catches made at different times in very crude ways. Captain John Smith, of Jamestown fame, is credited with many observations on their great abundance during his time, and in one prominent place a tablet at one time was set up extolling the merits of the fish and telling of the rare sight which he (Smith) had seen as to their great numbers in the James River. He described them as so rich in flavor that they reminded one of the "Mary bones," meaning marrow bones of beef, and as being so abundant that at low tide one might walk dry shod across the river on their backs. Some one of a facetious turn of mind chiseled at the bottom of the tablet the rather euphonious epigram, "John Smith is a liar," how much of truth was embodied in the whole story the author has as yet not vouched for.

As with all characters of prominence there is one serious stigma attached to the name of the subject of this sketch. he is a prodigious spawn eater and will

THE coast range of the striped bass is not so great as many are inclined to believe. It apparently never reaches north of the gulf of the St. Lawrence, and it is never abundant below the mouth of the St. John's River in Florida. While scattering individuals have been met with below that point still they are rare. Its real range is between Massachusetts Bay and the Chesapeake, where it is very plentiful at all seasons of the year, and the streams leading into it are at times an angler's paradise. And here again we meet the same conditions as are mentioned with many of our important fishes, the name is most confusing. It is known in different localities, and some not far removed from each other, by the name of Rock Fish, Green Head, Striped Bass, and Squid Hound. The latter name being applied only to the large ocean ranging fish.

And here it may be well to observe that this fish is not a bass at all. It does not belong to the family of that order, but to the perch, and is so classified by all authorities. However, his relations are of but small moment to either the angler or epicure, and like the scent of the rose he is as welcome under one name as under any other.

The bass is a most voracious as well as indiscriminate feeder, taking at times almost any bait offered, such as minnows, shedder crabs, Menhaden clams and blood worms, as well as the well-known squid or ink fish which at times it seems to prefer to all others. Early



Striped Bass

follow schools of herrings and shad to their beds and there deplete their well-meant endeavors. But we cannot ostracise him on that count and will be compelled to gloss over as best we may his faults.

The fact remains that he is eagerly sought for by a host of anglers for the excellent sport he lends to his capturing.

in the spring it seems to care for nothing but the bloodworm and seems to be on the search for it at all times. Were the same conditions of capture bestowed upon the bass as upon the salmon or mountain trout as regards weight of tackle, it is much to be questioned whether either of the latter two would develop greater fighting abilities. The



With lightning-like movement the lead is shot out two hundred feet, depositing the baited hook just where the green water is tumbling into the basin

conditions under which the bass is usually taken precludes the use of the very light rod and fine line. Ordinarily the contest is in swirling tide ways or in the pounding surf, which calls for the bait being presented at the bottom and held there by the consequently heavy sinker. This makes a rod of considerable weight necessary which is a barrier to sprightly acrobatics on the part of the quarry. That the Bass will occasionally rise to the fly seems to be accepted but under conditions which must be observed with fidelity, in the early morning hours before sunrise, or at sunset when quiet is on the waters and no wind moving. Those who have tried have been occasionally successful. There is no doubt that at the same time had a light rod with a spinner been in play the same fish would have been taken together with several of his congeners. Not that the use of the fly is to be decried, but with this fish the spinner and worm is decidedly more deadly, or to use a more sportsmanlike phrase, more certain of success.

THE proper method for river or bay fishing is a good light boat, with trolling equipment as follows: A light rod with sufficient weight to strike against or take up the slack against the momentum given by the motion of the boat, a nine-thread line and a good, active multiplying reel. A gut leader of from two to three feet in length should be used and at least two-ply,

which should be of a mist color and of good quality, attached to one eye of a box swivel; to the other end or eye the line should be fastened. The use of the swivel should never be neglected as the entire trolling outfit frequently revolves and without the swivel attachment the line soon becomes unlaidd or unstranded and consequently ruined. There is on the market a keel sinker, made so that below the part to be fastened to the line a flat depth of lead extends. This in trolling is invaluable as it not only prevents the line from revolving but carries the bait down rapidly and its edge formation offers but little resistance to the water. The hook should be a 4-0 or 5-0 O'Shaughnessy, why it is that this particular type of hook is so deadly to the bass is not fully understood. However, your experienced bass fisherman will accept no other type. For bait there is positively nothing which compares with the white worm or blood worm, as it is usually termed. Two or three good-sized worms should be strung on the hook with much of their lengths left hanging. Between the leader and hook, however, a small, free acting spinner should be attached. This is positively the most killing lure known and will take fish if they are to be obtained. The boat should be moved just fast enough to keep the bait free from the bottom, and as much of the time as possible against the tide. Where rocks are known to exist they should be worked over several times, until success crowns

the effort or assurance is had that the fish are not there. Grassy points should also be carefully worked out keeping the bait close in, no matter if the water is quite shallow, as the bass frequently lurks in most unexpected places. So many times, when arms are aching from continuous rowing and patience is about played out, whir-r-r-r—the rapidly vibrating click, that “alarm clock” to the fisherman, gives notice that a fish is hung and at once the fatigue is forgotten and nerves are atingle with excitement. If you are covering fairly deep water the first rush is sounding to the bottom; then off fifty, eighty, perhaps a hundred feet as swift as the flight of an arrow; then comes a splash at the surface. You can scarcely realize that it is your fish, so swiftly have the movements been made and in that move, if the hook is not well set, your relationship ends for all time, as the splash you heard was not accident but design.

Could you have been closer you would have seen the thrashing of the head to throw the hook from the jaw, but being unable to do so, again he sounds and runs and if the hand of experience is holding the rod full play is given the captive until exhausted, but not conquered in spirit, he is slowly led to the gaff or landing net, without which no fisherman should ever hold argument with a game fish from a boat.

WHILE the bass are not nearly as abundant as formerly still it may be said with assurance that they are holding up as well against the indiscriminate slaughter as any other species. This may be accounted for by the fact that he is at all times an inshore ranger and is not affected by the “pound nets,” besides legislation has been passed in all the coast states looking to the conservation of the species. Another great safeguard to the bass is the fact that they spawn in bays and rivers and never in the open ocean, so the small fry remain in inland waters until quite able to care for themselves and it is no stretch of the imagination to contend or believe that much of their lives are spent at or near their place of birth. Like all other species the scarcity or abundance of this fish depends largely on the food supply at a given point. The bass is at all times fastidious in his manner of feeding. What will be taken greedily at one time will not tempt them at another, so it is always well when surf fishing to have two or more kinds of bait in readiness. The baits usually relied on are bloodworms, shedder crabs, squid or ink fish, and skimmer clams. When neither of these secure results it is quite safe to assume that bass are not present in the water or are absolutely not feeding. They will, however, take the metal squid during the autumn months when the surf mullet is about, but strange to say while they persistently pursue the latter fish they rarely will strike one when on the hook.

If we claim that trout and salmon fishermen are immaculate in their ideas of proper outfitting, the same must be applied to the bass fishing enthusiast.

(CONTINUED ON PAGE 440)

AFTER TROUT IN NORTHERN ONTARIO

THE RECORD OF A TRIP TO THE NAGAGAMI RIVER REGION WHERE TROUT ARE IN ABUNDANCE AND HAVE LEARNED BUT LITTLE OF THE CRAFTY WAYS OF MAN

By J. R. TODD.

IF you leave the Porcupine Mining Camp on the Friday noon train any time in trout fishing season, seven hours' ride will land you in plenty of time to make camp that same night in what is one of the best spots in Northern Ontario for brook trout. The section of Ontario spoken of is on the Transcontinental Railway between Amerson and Savoff Stations.

There are, in this distance, five streams—and probably others which I have not found—that will give one all the sport and almost any size fish one wants to take. However, Nagagami River, with its two branches the White and Skunk, are the ones on which my friend, Mr. C., and I with Dick the guide, spent what were probably three of the best days I put in last summer and something that I will have to look back upon for years to come with very pleasant thoughts.

We had been talking about this trip from the first day of the season and after making two false starts, when the "something" happened each time, that turns up at the last moment and stops everything, we at last were really on the train and away. On the 12th of June, two days previous, we had sent Dick ahead to make camp and get things in good shape, not taking any chances on a late train.

So it was with satisfied smiles that we eventually stowed down our personal belongings and got settled for the seven hours' ride. This may seem a long trip for fish, but when the train rolls through a virgin country across mighty rivers, all flowing north to the Hudson and James Bays, only some six days canoe trip north, not a moment in the whole trip seems too long or but what holds its full sixty seconds of interest.

Cochrane was reached at two-thirty in the afternoon and after a thirty minute wait we were away on a one hundred and eighty mile ride on the Transcontinental, most of which is level as a floor. Soon we began to cross high bridges, over Frederickhouse, Driftwood, Metagami, Ground Hog and Kapuskasing Rivers and dozens of others, all very large and nearly all full of pulpwood, ready for the big paper mills on these immense streams.

The country unrolled muskog,



Two of the culprits

spruce, whitewood, jackpine, settlers' cabins, lakes, streams and rivers, an everlasting change of green and brown blended together, soft and soothing to the eye.

We told ourselves it would be daylight up there till about nine-thirty, and as the train was on time we would get to camp and have a look around before dark.

The engine whistled, brakes ground. We started getting out rods and baskets and the dozen and one other bundles that fishermen always carry and were dumped off in the bush by the side of the track, but not yet quite in the bush, for as the train pulled away we saw the station and were able to get the section man to hand car us about two

miles to camp on the bank of the Skunk.

The Skunk bridge is quite high and long and on the west end of it the car stopped at the beginning of a small foot path, where Dick welcomed us with the news that the fish were rising. "Fine!" down the steep bank we fell or ran, as the case may be, and through a dim clump of spruce—which from the top of the bank seemed to be directly under the bridge, but in reality is some hundreds of feet from it—and down into a flat meadow in which the camp was set up on the bank of the stream. And what a stream! Winding around the meadow and through the woods, its steep banks, many rapids and falls, make it an ideal trout stream and just at this particular part, not a stone in its beautiful gravel bottom larger than a hen's egg. About knee deep and cold as spring water on the hottest day. And fish, we had hardly gotten our stuff stowed away when Dick called: "See that big fellow rising over there?" Yes, we saw him and we also saw several rising under the bridge, even though we did fall down the bank. As it was too cold for black flies in the evening, we had a splendid night's rest, except for having to get up and get out an extra pair of blankets.

NEXT morning about six, broad daylight (and had been since three o'clock), we were astir. "What, frost last night?" "Yes, siree; froze everything stiff." Grass, weeds and bushes were covered with hoar frost, but by eight o'clock it was all gone and old Sol was warming thing up and a few mosquitos and black flies got busy about breakfast time, which kept us from thinking too much about fishing.

Now the rods came out and reels clicked and buzzed. Leaders, dampened the night before along with two or three sets of flies, were soon in place and after looking around through our pockets, fly books, etc., about forty eleven times to see that we had not forgotten anything, we were off.

Just at the edge of a camp a tote road followed the bank of the stream up about two miles until it lost itself at the top of a high clay knoll, in a blind end. At this blind end there were five immense pine stumps which accounted for the tote road. It had been made to get



On the Nagagami, a clear, cool, restless habitat of trout

timber for the original construction of the bridge. The moose evidently used the tote road for a sidewalk as it was literally covered with moose tracks. We, however, had no time for rifled woods or moose tracks, the stream gleamed ahead through the thinned out trees and we heard the chatter of the water as it was forced through a rocky gorge and down a set of riffles, which surely spelled trout. Then just as we reached the stream, Friend C exploded and went to the fly oil, from which he emerged dripping oil from the eyebrows, chin and nose. "The blighters," he said. C and I were fly cranks but Dick, however, had no scruples and proceeded to bait a hook with pork rind.

My first assay at balancing myself on a rock in mid-current ended with the usual result and I sought the bank wiser and wetter. After several attempts to reach a very attractive piece of foam in an eddy on the far bank, C also went in over his waders and we were soon fishing in earnest. The only thing we had left to lose was our reputation as fishermen and we were going to die hard before that happened. After taking a dozen fish, half a pound or more each, C at last hooked a good one and up and down the stream he fought him, around stones, back and forth, across the stream until he finally netted him neatly—three and a half pounds on a Parmachene Belle. After two hours' fishing, in which we lost Dick, C said: "How many?" "Oh, about forty." "How many, you?" "About the same." "Had enough?" "Sure." This conversation was carried on across the stream and was rather disjointed, but after I waded across we went back to camp. Off came the wet clothes and we got into loose, dry things, with old boots on our feet. Then we tapped the jug and wet the fish. Then dinner, fried trout and bacon, fried potatoes, jam, bread and tea; the pipes came out; we lay in the shade and talked it over; we got up, looked at the fish, came back and talked it over again.

Presently Dick was seen coming through the meadow. Now, right here I may say Dick had no rod, he used a pole. He had no basket, he used a forked gad and you can believe it or not he had both sides of that gad full of trout! They were trailing on the ground. I said: "Look at that," C raised himself on one elbow and right there Dick got the name of the "Bloody Poacher." However, on looking his string over we decided he had about twenty-five fish that should have never been out in the cruel world and we at once put a handicap on him and told him that he must take "nothing under seven inches unless he is dead when you find him." This may seem a strange thing to say but Dick, however, spends about fifty per cent of his time looking for his fish back in the bush. If he gets a bite the fish either pulls him in or he pulls it out and the result is soon known. However, he was quite proud of his catch and asked: "Going fishing this afternoon?" "No, we think not, we have had enough until evening," C replied. Anyway it was too hot for fly fishing even though they

would bite bait. So Dick busied himself about the camp and soon his axe was heard off on the edge of the clearing where he was getting wood for the log fire in the evening which we all helped to carrying back to camp.

Supper was over about six o'clock and we began to think about giving them another try, when a Government Fire Ranger dropped in to see us and said that there were some very large fish in the Nagagami, three-quarters of a mile west. Friend C decided to try the Skunk down stream, while I went to the Nagagami with Jack, the Ranger. We climbed back to the track, got on a speeder and were soon at the Negagami. About half a mile down stream was a set of falls which Jack said was the best place. One very large fish was rising out in the eddy at the foot of the falls and after repeated tries we gave him up until sundown. After half an hour's wait the sun went behind the top of the hill and we started in again

Just here the character of the stream changed and instead of running in the valley it started to cross the formation and we came to a series of falls from four to twelve feet high between rocky banks. Here the bed of the stream was covered with big boulders and behind each lay the trout, waiting for the luckless fly. And how the trout rose! Often leaping into the air for the fly four or five inches above the surface of the water. Seldom a cast that failed to bring a fish to the surface and doubles were not uncommon. About two o'clock the fish stopped rising. The day was very hot and bright, so we inspected our catches, which were two full creels, and started home. Every mossy depression in the pine woods was a mass of color. Orchids grew in profusion, they were very small it was true, but none the less beautiful; deep purples, rich reds, and snowy whites were seen combined on one spike or one flower. The air smelled of balsam and pine and small northern birds peered at us through the



We camped in a little open meadow, surrounded by thick timber

getting three right off the bat at the foot of the falls. Then we tried for the big one again, without result. Down stream a short distance was a small island and between this and the shore we got four more, all about two to two and a half pounds apiece. Then back for the big one again, but this was not his night and after ten minutes more we reluctantly left him for some better fisherman or a more opportune time.

Back at camp, C had added a few to his catch, but somehow Dick fell down. They failed to take the bait that evening. My seven looked as big as a house and Jack said I made him mad, with that little pole. Some day he said I was going to lose a big one, playing him around that way.

That night frost came again and in the morning we planned to go away upstream and fish home, but once in sight of the stream where we left off the day before, new wonders opened up and we had to stop and try here and there until pretty soon all our plans went smash.

leafing willows, while a whiskey jack scolded us all the way home.

At camp, Dick reported a fine set of rapids down stream where he had made quite a nice catch, however, on account of the handicap imposed on him the day before, he had not so many. "Gee," he said, "I must have thrown back a hundred." Jack the Ranger had also arrived and had been telling Dick of a small brook about six miles east which he intended to visit on the speeder during the afternoon. So after a snack, Dick and Jack left for Bertram Creek.

Friend C and I lay around and were lazy for the rest of the day, occasionally we took up the rods and went a short distance from the camp, but the fish didn't take the fly. They came up, had a look and went back under the bank. Dick and Jack got back about seven o'clock. Dick had about thirty-five trout, all from nine to ten inches. He said the little brook was just alive and we believed him. Thirteen miles on a

(CONTINUED ON PAGE 437)

FOREST AND STREAM

FORTY-EIGHTH YEAR



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THE OBJECT OF THIS JOURNAL WILL BE TO studiously promote a healthful interest in outdoor recreation, and a refined taste for natural objects.
 August 14, 1873.

ANOTHER BIRTHDAY

WITH this number FOREST AND STREAM enters upon its forty-eighth year. A review of the years that have passed since it was cradled in the arms of American Sportsmen would be a review of all that has been found worthwhile in American Sportsmanship.

Among the many achievements which mark with distinction the years that have gone we like to remember that it was FOREST AND STREAM which organized and financed the movement that saved Yellowstone Park; that it founded the Audubon Society and made Glacier Park a playground for the people.

Among its more recent works of public service might be mentioned the Mt. McKinley National Park in Alaska and the Migratory Bird Law; our Mr. Sheldon handling the McKinley Park movement and our Mr. Shiras, while a member of Congress, introduced the original Migratory Bird Law which became a reality in the Weeks-McLain Bill.

The character of our Governing Board indicates the class of sportsmen to whom we appeal—men who carefully educate their sons along lines which they believe develop the highest qualities of manhood and good citizenship. We who hold the helm today feel it an honor to guide the destinies of FOREST AND STREAM. Spurred on by the memory of its sponsors and sustained by the army of good friends who stand by, we aim to build from this, its forty-seventh birthday, a paper worthy of the proud old name it bears.

PUBLIC SEWERS

CIVILIZATION has moved forward during the last four or five hundred years, but there is still a little room ahead of it. In the cheerful town of Hythe, in the fifteenth century, things were not quite so far advanced as in the United States in the twentieth century. For example, a jury of the townspeople of Hythe gave this account of street conditions as they then existed.

When people cleaned out their stables and their

hog yards they carried out the refuse and left it in the streets. When meat sellers butchered animals they took out the offal and threw it in the streets. Timber dealers left the trunks of trees lying across the street, while builders used the street for framing the houses they were putting up, and so blocked the way. When the road ran along a river bank, the traders built their wharves and sheds on it. Butchers' offal so fouled the wells that a pestilence swept Hythe, by which many lives were lost. At times, water poured out from houses flooded the street, or, again, some citizen turned a water course out of its bed, or built a dam across a stream and turned it into the road, without regard to what might happen to the public who used it. The dyers allowed their waste to run into the street, till it became a morass. It was difficult for the traveler to pass at all, and impossible for him to pass without being more or less covered by mud and filth.

Near another town, a miller who needed a particular kind of clay in order to repair his mill sent his servants to dig some from the nearby high road where there was a bed of this clay. The servants took what clay they needed, and no doubt the mill was duly repaired, but they left in the road a pit ten feet wide, eight feet deep and eight feet broad, which the rains soon filled with water. One night an innocent but unlucky traveling merchant came along the road and with his packhorse walked into this pit and was drowned. The miller was charged with the death and tried for it, but was acquitted on the ground that he had not intended to cause the merchant's death, but only took what clay he needed to mend his mill.

All this seems queer enough, but were these fifteenth century Englishmen so very different from ourselves? We think that we try to keep our streets reasonably clean and imagine that all citizens have certain rights which must be protected. Nevertheless, few sights are more common in large towns than to see pedestrians, for whom the sidewalks are supposed to be reserved, obliged to turn out and trudge through the middle of the street to pass around carts, backed up over the sidewalk delivering dry goods, coal, groceries, vegetables—goods of all sorts and descriptions—for the benefit of the trader and of the tenant of the land. Like their predecessors of Hythe, the builders today take the street or most of it. These, however, are small matters.

What is important and what makes us seem cater-cousins to the old dwellers in Hythe and Nottingham is the way in which we treat our streams—just as the fifteenth century English did their streets—converting them into sewers. Towns and factories empty their waste into the nearest stream, fouling the water and killing the fish. The rights of people living further down the stream are entirely ignored, unless as rarely happens, some man's patience becomes exhausted and he resorts to the courts, or interests some association in the matter.

Up on Lake Champlain a dozen years ago a point where pulp mills had been turning their waste into a stream, polluting the water and killing the fish, these mills, through the activity of an organization of local summer residents, were forced to mend their ways and dispose of their waste in a less injurious fashion. Two or three years ago, pulp mills in Michigan, not far from Monroe, began to turn their waste into the river, destroyed great beds of wild celery that grew in Saginaw Bay and incidentally

killed commercial fish in a private pond which drew its water from the stream. The courts are reported to have stopped this.

Is it not really time for the public to manifest some interest in this matter of stream pollution, and really to take hold of it? Not merely to take hold of it and then to let go again; but to take hold of it and keep its hold.

ROOSEVELT EXPERIMENT STATION

THE establishment at Syracuse University of the Roosevelt Wild Life Forest Experiment Station marks the first active step in a movement much-talked about recently, and likely to go far in the United States.

Three years ago the authorities of the New York State College of Forestry submitted to Colonel Theodore Roosevelt plans for an inquiry into the wild life of the New York forests and received the promise of Mr. Roosevelt's hearty support and that of a number of his friends and associates.

The area of forest land and fresh water in New York State almost equals that of the areable land, and it may readily be conceived that the life of these forests and of this water is of great value and that its conservation and care offer problems of economic importance. Moreover, this wild life furnishes one of the main sources of income which pays for conservation in the state. The work of the Roosevelt Experiment Station will thus consist of experiment, investigation and general research into the wild life which occupies millions of acres of land and water. The law provides that it shall have laboratories and a library open to the public and shall issue publications.

Besides the work of investigating, caring for and propagating the fish, birds and mammals of this great area, the station will train those students interested in any of these subjects who may wish to become technical forest naturalists or foresters interested in the development and management of fish and game under wild conditions. The work that such an experiment station may do is almost limitless and its possibilities are as yet quite beyond the range of our imagination.

For some years work of this character has been urged upon the Interior Department and in a tentative way has even been undertaken by the National Parks Service. The recently organized National Park Association—a private organization—purposes to do work of this general character.

The establishment of the Roosevelt station is due largely to the enthusiasm of Dr. Charles C. Adams, who has been greatly helped by Dr. Lewis Rutherford Morris, whose admirable work in connection with the establishment of the New York State Police is so well known.

VICTORIA FISHERIES ASSOCIATION

THE good work of the Victoria Fisheries Protective Association was noted last year in FOREST AND STREAM. The year 1918 was mainly devoted to an attempt to increase, by natural and artificial propagation, the number of trout and salmon in the streams of Cape Breton.

Mr. George Kennan, the Secretary of the Association, has again reported on the work.

In the fall of last year it was suggested to Inspector McLeod that one brook on every large river in the Island be set apart as a spawning place, fish refuge, and natural hatchery for trout and salmon,

and that such reserved brooks be closed to anglers all the year round under the provisions of Section 59 of the Fisheries Act of 1914. This suggestion met the approval of the Inspector, who joined the Association in a report to the Department, recommending that this action be taken. The Deputy Minister approved the scheme and directed that sketch maps of the selected brooks be made and submitted to him, together with further information concerning their suitability. Such information has since been gathered and transmitted, and it is hoped that the plan will be put in operation this year.

The Association is convinced that the distribution of trout and salmon fry from the Margaree hatchery has not produced results commensurate with their cost. Thirty million fry or more have been put into the streams in the last ten years, but nearly all of them, apparently, have perished before reaching maturity. Artificial culture, so far as can be judged, has played little part in the increase of the stock.

It is believed that the excessive mortality of fry in these waters is mainly the result of faulty methods of distribution. Attention enough has not been paid to the important work of planting. Fry have been put into the water in too large lots—25,000 or more in one place at one time—and have been distributed in localities where food is comparatively scarce while enemies are very numerous. If only three or four fry out of every thousand survive to maturity and return to their parent rivers to spawn, the stock will be steadily increased, year by year, and it ought to be possible to save that small number by scattering them in places where the conditions of life will favor them during the early stages of their existence. If they live to become fingerlings their chances of survival to maturity are increased ten-fold.

CONNECTICUT PROTECTS HER GROUSE

CONNECTICUT breaks a lance in the cause of real game Conservation by an act establishing a close season for Partridges or Ruffed Grouse which reads:

"No person shall hunt, take, kill, or attempt to kill any partridge, ruffed grouse or female pheasant prior to October 8, 1920."

While this is somewhat in the way of a compromise, still it means two undisturbed breeding seasons, which will go a long way toward restocking Connecticut covers with this fast disappearing bird.

THE GULF RANGERS VINDICATED

MR. LARNED'S interesting story of "The Gulf Rangers" ends in this number. He has faithfully recorded the explorations and adventures of the King party in the little known Everglade region of Florida. Their tireless endeavor to trace and to gain information concerning the illicit and nefarious practices of the egret hunters has been highly successful and they have brought to light and exposed to the authorities much valuable data. It so stimulated the actions of the Florida game wardens that many culprits have since been apprehended and a number of important arrests made. This in itself is a most creditable achievement. For years these beautiful and helpless birds have been preyed upon and slaughtered, as Mr. Larned has so well described in his story, and it is a great source of satisfaction to FOREST AND STREAM to know that the publicity given in its pages to this outlawry has in so large a measure contributed towards its ultimate extinction.



NOTES ON SHORE BIRD SHOOTING

THE DAYS ARE CLOSE AT HAND WHEN THE HUNTER, SNUGLY HIDDEN IN HIS BLIND ON BEACH OR MEADOW, CAN ENJOY THE FIRST REAL SHOOTING OF THE SEASON

By EDWARD RUSSELL WILBUR

THE opportunity to break the long closed season comes to the devotee of the scatter gun with the opening of the shore bird season. To those who have only had the gun from the rack to pace back and forth on the board walk at the country club, smashing clays, the coming of the days when, behind the decoys on beach or meadow, he can exercise his skill in "whistling in" the various bay snipe as they are called, are hailed with joy by the man who has once tried this sport. From the Bay of Fundy in the north to the Florida reefs there are miles of the Atlantic Coast that at one time or another throughout the year are visited for a short or long period by the bay snipe, beach birds or shore birds, and not only are they to be found along our Atlantic and our Pacific seaboards as well, but inland along the various wa-

terways of the United States, on the lake shores, on the prairies, marshes, and even the upland pastures of the middle and Atlantic States. Those who have been taught to believe that the shore birds, *Limicolae*, were confined to the seacoasts, are in error, as with few exceptions they are found in large flocks as far inland as our western prairies, while the Upland Plover is readily found high up on the hills of New England in the old, well-worn and stony pasture lots.

In variety their names are legion and one species is known in different localities by a dozen different names. On Long Island we hear the name Dowitcher, in Massachusetts it is a Redbreast and again the bird is called in other places, Brown-back. The Marble Godwit of the east, in the west is a Marlin, and so on. Away up on the prairie meadows at the head waters of the St. Johns River

the writer many years ago killed a large number of what the natives called "Stilt" a long, red-legged bird of some size and very fine eating; killing one some years later on Long Island, my guide called it a Bastard Dowitcher. Again in the early 80's we had some wonderful shooting at a lake in the then territory of Utah, during which we killed in one day the greatest varieties of these snipe that I have ever seen in any one locality.

We give below a list of the birds worth shooting, and as far as possible the names of each species used in the district where they are shot, over decoys or stools; the list includes the waders and plover, commonly called Bay Snipe.

BAY SNIPE

LONG-BILLED CURLEW (*Numenius Longirostris*), sickle-bill; sabre-bill.

HUDSONIAN CURLEW (*Numenius Hudsonicus*), Jack; short-billed curlew.



Sometimes a flock of birds that intend to stool will drop down to leeward where they circle and then draw in over the decoys.

ESQUIMAUX CURLEW (*Numenius Borealis*), fute; doe bird; little curlew.

BLACK-BELLIED PLOVER (*Squatarola Helvetica*), black-breast; bull-head; beetle-head; ox-eye; bottle-head; pilot. It is the fastest flying bird of all the bay snipe, and it cannot fly slow enough for the other species.

GOLDEN PLOVER (*Charadrius fulvus var. virginicus*), golden-back, green-back; frost bird; whistling plover; bull-head.

GREAT MARBLED GODWIT (*Limosa fedoa*), marlin; humility; brown-back; straight-billed curlew.

HUDSONIAN GODWIT (*Limosa hudsonica*), ring-tailed marlin; white-tailed marlin; humility; Virginia woodcock.

SEMI-PALMATED SNIPE (*Totanus semipalmatus*), willet; marbled willet.

TELL-TALE TATTLER OR SNIPE (*Totanus melanoleuca*), yelper; big yellow-legs; great yellow-shanks; Tell-tale tattler; stone snipe; large cucu; willet.

YELLOW-SHANKS, TATTLER OR SNIPE (*Totanus flavipes*); yellow-legs; little yellow-legs; lesser tell-tale. Known everywhere as the yellow-legs.

RED-BREASTED SNIPE (*Macrorhamphus griseus*); dowitcher; dowitcher quail-snipe; brown-back; gray snipe; driver.

TURNSTONE (*Streptilas interpres*); calico-back; brant bird; chickling; chitic; sand runner; horse-foot snipe; beach bird.

RED-BREASTED SANDPIPER (*Tringa canutus*); robin snipe; knot; ash-colored sandpiper; gray-back; white robin snipe.

PECTORAL SANDPIPER (*Tringa maculata*); krikeker; meadow snipe; fat bird; short-neck; jack snipe; marsh plover; grass plover; grass snipe; robin snipe; red back.

RED-BACKED SANDPIPER (*Tringa alpina var. Americana*); black-breast; black-breasted plover; winter snipe; red-back.

LONG-LEGGED SANDPIPER (*Micropalama himantopus*); stilt; bastard dowitcher; bastard yellow-leg; wood snipe; blind snipe; frost snipe; peep; drum stick.

THE open season begins on or about August 1 to 15, and in most localities the bag limit is restricted to some fifteen to twenty-five birds per gun. This is wise, as these birds are well worth protecting, affording the sportsman as they do much sport, and call for considerable skill in the "whistling in" and decoying the various varieties as they come along. As much depends on the sportsman's skill in whistling, and his knowledge of the varieties and species as does his accuracy and rapidity of aim. The sport, if it is good and the birds numerous, is exciting. The variety of species, the difference in call and flight, the uncertainty of bringing the game within range, and the selecting of the big birds of the flock lend a charm found in no other sport.

In ordinary life there may be a question which is the best part of the day, but for shore birds, one must be dug in and have the stool out at daylight. Much depends on the character of the place where you go and the variety of birds you intend to shoot. As to what sort of a blind you must make on a sand bar or beach, a box sunk in the sand



As the stool appears to the incoming birds

is a killing device. On a marsh a blind of cedar boughs or marsh grass or one can make a blind of muslin and sticks which can be stuck in the sand. Whatever one uses it must have a natural look and the gunner must be well hid, as Curlew, and Jack especially, are wary birds, and do not stool well unless everything "looks right." Bars and shoals are the favorite haunts of the Black-breasted Plover, Willet and Dowitcher, while the meadow pond holes are the sure places to attract the Yellow Legs.

The most favorable wind is one that blows steadily from the southeast. Birds coming from the north flying against it, lower their flight to skirt the bars and meadows and so are brought on to the stools better than when traveling with

the wind and going at greater height.

The stool: either the tin sort that hinge and nest one within the other and are put up on a single stick which holds them in place or the wooden sort, all of which are painted to resemble the different varieties. Some gunners use 20 to 30 stool, but we prefer about 50 as the greater show is sure to attract, and then again this number allows the decoys to be well-strung out to windward. All stool should be set out to windward of the blind and in a crescent-shaped circle with the heads of the decoys facing into the wind. There are two reasons for arranging them in this way. First, all wildfowl light to the wind; second, a flock of birds that intend to stool drop

(CONTINUED ON PAGE 446)



The correct layout of the stool in relation to the blind in the background



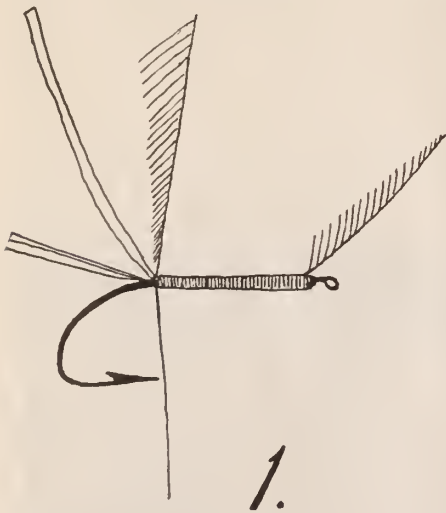
THE GRASSHOPPER FLY

By R. L. M.

NOW it is obvious that if an imitation grasshopper could be made that would float like the natural insect, and could be cast like a fly, there would be a very strong probability of catching trout with it.

There are various types of imitation grasshoppers made, but they all have one great fault; they may float, in fact the majority cannot sink being constructed with cork as their chief substance, but one and all they are much too heavy to be used as a fly. It is true that they can be cast to considerable distances, but when they hit the water they make altogether too much of a splash on smooth surfaces and more often than not scare the fish instead of attracting them. The chief characteristic features of the common grasshopper are the thigh joints of the posterior pair of legs, a mottled wing case and a pale yellowish body.

The first serious attempt I made at designing a grasshopper fly was about 10 years ago. The fly as then made had a light brown wool body, ribbed with pale yellow silk, a pheasant wing, ginger hackle and a tail made up of some strands of mallard, with a red feather mixed in. The red in the tail was introduced to catch the eye of the trout and attract the fish to his doom. This fly is known as the "Dr. Gates" and is named after one of my friends who is a very keen fisherman. It has



a considerable local reputation in Northern California, but has one great disadvantage, it is a very poor floater; the body, being of wool, changes color when wet and when once it is waterlogged it is very hard to dry it again.

DURING the following years I designed several slight variations of this fly, but it was not until quite recently that I struck the correct combination necessary to produce a good imitation of the natural insect. The following is the correct dressing of the "Floating Grasshopper Fly, Series 1917": The colors mentioned are taken from the Colour Chart of Société Française des Chrysanthémistes, which has a series of colors ranging from coal black to snow white and is used as a standard by the chrysanthémum growers of France. When describing colors from the chart I also give a popular definition of the color to help those who have not a color

WE are depending upon the friends and admirers of our old correspondent Nessmuk to make this department worthy of his name. No man knew the woods better than Nessmuk or wrote of them with quainter charm. Many of his practical ideas on camping and "going light" have been adopted by the United States Army; his canoe has been preserved in the Smithsonian Institution; and we hope that all good woodsmen will contribute to this department their Hints and Kinks and trail-tested contrivances.—[EDITORS.]

chart to refer to. The feathers are in their natural colors unless otherwise specified.

Wings: From the wing feather of a pheasant. These are meant to represent the wing cases of the grasshopper and should be tied on so as to lay down close to the hook, one on each side.

Cheeks: Small cock's hackle points (p. 19), dyed primrose yellow, shade 2 or a light canary color. The "cheeks" are meant to represent the thigh joints of the grasshopper's legs which are the features that stand out most sharply in contrast with the rest of the insect. They should be tied at a slightly steeper angle with the hook than with the wings.

Body: A quill-dyed Naples yellow shade 2, or a pale straw-colored quill (p. 29 on color chart).

Body Hackle: The same color as the body, either dyed or from a brassy dun cock. The body hackle is quite short and is put on to assist floatation.

Neck Hackle: A few turns of a medium ginger hackle.

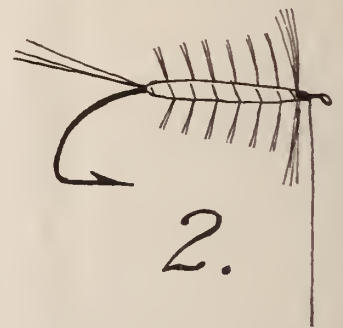
Tail: A few strands from a mallard.

A GRASSHOPPER has no tail, but these strands are meant to imitate the lower extremities of the legs of the insect which possibly stick out behind the ends of the wing cases when the grasshopper is in the water. I cannot say with any degree of authority whether or not the tail improves the killing qualities of the fly, but it adds a slightly finished look to the fly and therefore I put it on.

The body hackle was added last year, as I found that with a plain quill body the fly took a great deal of drying to make it float again when once it had gotten wet. But when I adopted the body hackle there was no difficulty in drying the fly.

Now, although this fly is meant to be a dry fly, it should be dressed in the manner that the ordinary wet fly is dressed, viz., with hackles, wings, etc., tied more or less in a vertical plane above and below the shank of the hook, and not with the hackles standing out all around. The reason for this is that the fly should float on its side and not "cocked up" because the natural insect, which it is supposed to copy, in nearly every case floats on its side when it has the misfortune to fall on the surface of the water. Of course there is the added advantage that this fly can be used for either wet or dry fly fishing.

THE most complimentary friend would never say that this fly has a remarkable resemblance to a real grasshopper; but when the fly is floating on its side the combination of feath-



ers and quill have an extraordinary likeness to a grasshopper in a similar position when viewed from above, and as both fly and insect are more or less opaque, I imagine that there is a very similar look about them when regarded from the trout's point of view. The size of hook on which the fly should be dressed should range from No. 10 up



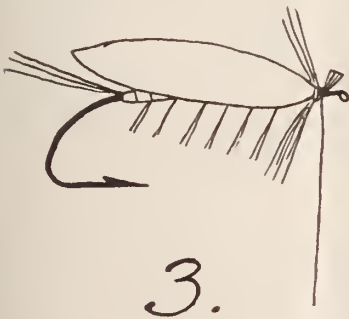
to No. 7, which is the largest size advisable to use.

I used this fly exclusively last summer when there was a very heavy fall of grasshoppers on the river I was fishing. I used No. 10 hooks mostly, but I found that sometimes a feeding trout that had refused the small fly several times took a larger fly on the first presentation, but this is not always the case. It is best to use a fly slightly smaller than the average size of the grasshoppers. Another important point to remember is that the body must not be made fat, it should be as slim as possible, if otherwise the fly makes too great a disturbance when being cast onto the still surface of the deep pools.

I find that one application of oil when commencing to fish is generally sufficient to last out the life of the fly. Sometimes when a fly has been very badly mused up it may be necessary to oil it again.

When a fly is in a very bedragled condition, before trying to dry it, it is advisable to cast the fly on the water, allow it to sink well below the surface, and then draw it in, by a series of sharp jerks. This removes any slime from the fish's mouth that may have been responsible for the condition of the fly and now it can be dried again without very much trouble.

TO further hasten the drying process the fly can be squeezed between a folded piece of amadon. Amadon is a fungus that has the property of absorbing moisture in a very miraculous



manner. It can be obtained at druggists' stores. I had very good success with this fly, fished dry, last summer on a river that is heavily fished and where the trout are extremely sophisticated. Although I am not quite a novice in the art of casting a fly, having fished for trout for over 30 years, I believe my success was chiefly due to the fly and

not to any great extent to my moderate skill with the fly rod.

When the "fall" is well on, before commencing to fish a pool, a brief examination should be made and the location of the various feeding fish noted.

Beginning at the lower end where the water is generally quite smooth and deep, the nearest feeding fish should be covered by casting the fly about 2 or 3 feet above the spot where he took his last grasshopper, and the fly should be floated down over this position with no motion except that of the current. If the fish does not take the fly, let it float down 5 or 6 feet below where the fish is supposed to be before lifting the fly from the water.

If the fly has been made correctly—*i. e.*, not too bulky there will be no difficulty in making it drop lightly on the surface and although the surface may be like glass if a fine tapered leader is used, tapering down to XX or XXX, trout can be caught in the most impossible looking places.

IF a fish is hooked, steer it down stream at once and land it with as little commotion as possible. As progress is made towards the upper part of the pool and the surface current increases, the fly should be cast further upstream above the location of the feeding fish until, where casting in the swift water near the head of the pool, the fly should alight as much as 6 or 7 feet above the place that you wish the fly to float over.

Last summer the most successful exponents of the bait fishing school did not have the success that I had and after a very thorough trial of this fly I have no hesitation in recommending it to all those who look upon trout fishing as a sport and not as a method of procuring food. At the same time there is the solid fact that, if one does become an expert in the use of this fly, one can catch just as many and quite as large trout as the followers of the cruder method ever do.

IF one starts out to make a rough inventory of the trout streams of North America, the fact is brought home to one that there is a very large extent of water that is composed of streams and rivers which flow through bottom lands; especially is this the case in the western half of the continent. These bottom lands are frequently in the form of hay meadows and the insect life that is most numerous during the summer months in these localities is the grasshopper.

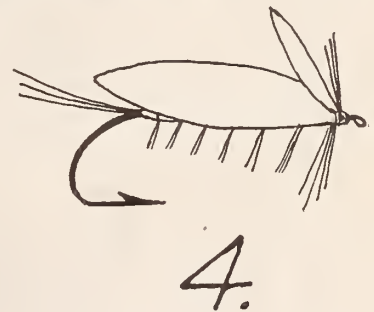
Where the grasshoppers are in considerable numbers, which is the rule and not the exception, they form a very important part of the natural dietary of the trout inhabiting these particular streams.

Trout do not feed, to any great extent, on flies or other insects when the grasshopper is present in large numbers, for the reason that they swallow such enormous quantities of grasshoppers during the day that when the usual evening rise of flies appears they are full to repletion and do not pay very much attention to the small flies on the surface.

The rivers on which grasshoppers are prevalent, are, from the nature of the surrounding country, not the dashing, rough streams met with in the hills, but generally they consist of a series of large, deep, slow flowing pools, connected together by short rapids or riffles; consequently there is plenty of room and numerous opportunities to make fairly long casts in reaching the feeding fish, and furthermore these same fish are of a larger average size than the fish that are caught in the rough water nearer the source of the stream.

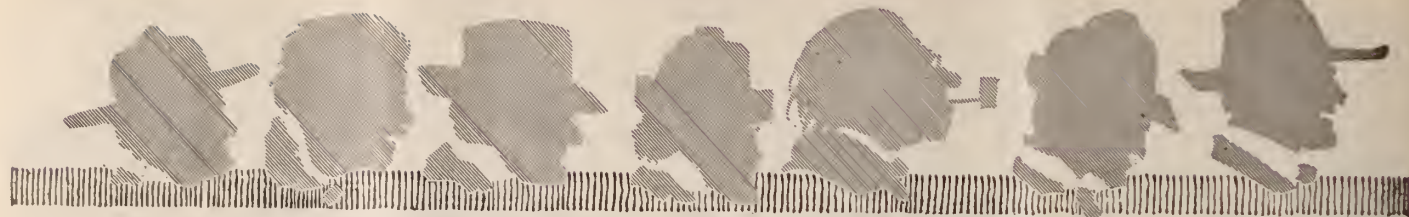
IN the early hours of the day the grasshoppers do not move about very much, but by the time the sun has developed strength they begin to take short flights, and it is in taking these flights that they frequently have the misfortune to fall on the surface of the water.

Once they are in this unnatural element, they very rarely get back onto dry land again, and if they fail to do so very quickly they will undoubtedly be taken by a fish.



We generally speak of a "hatch" or "rise" of flies, but the correct designation for the appearance of grasshoppers on the surface of the water, should be termed a "fall" of grasshoppers. This may seem to be a hairsplitting style of nomenclature, but I believe everything should be called by its correct name;

(CONTINUED ON PAGE 444)



HOW I FOOLED THE BIG BASS

To the Editor of FOREST AND STREAM:

WHEN I was about nine years old I lived in a small village in Connecticut. There was a small stream which flowed through that section, a branch of the Connecticut river. In the spring of the year small fish would run up to spawn and many would stay there, so it was well stocked.

We caught pickerel, yellow perch, sun fish, bullheads, and dace, as we used to call them, and occasionally a small-mouthed black bass, but up to the time of this narrative it hadn't been my good luck to land one. If any one wanted to find me after school hours or Saturdays and should stop at the house for me, they would be told that I was off down the river.

It was quite a usual thing for our local fishermen, including my uncle or cousins, to be waiting after school for me to go fishing with them, for they knew I was familiar with the best places and if they took me along they would be more likely to have fish for breakfast.

Now it so happened that I called at my uncle's house to see if he would go one day and I was told that he and my cousin were down the river, and had their poles with them. My feelings were hurt because they hadn't stopped for me. I met them when they came back and saw that they had no fish. I thought that was very funny but I didn't ask them why.

A few days later I saw them going down through the lots with their poles and, boy-like, I began to get inquisitive and wanted to know where they were going and what they were after, so I followed them. They stopped at a bend in the river where the current had washed the bank away under a large elm tree, and the water was very deep and very clear. That was one of my favorite places to fish. I noticed they had on a different bait than I had ever seen before. It looked like feathers and they threw it in by standing away back from the water. They cast a few times and then went home. Now they had me guessing. I thought to myself: What are they after? So I crawled on my hands and knees, without making much noise, and laid flat on my stomach where I could get a good view down into that deep place and watched. Finally the thought came to me: There must be a bass in there. I remembered one time I had fished there that something had taken my hooks off and had broken my line several times. I thought it had been an eel but now I had it all figured out it must have been a bass. My uncle wanted to catch him and then to tell me I didn't know how to fish. After I had been there watching for a long time

LETTERS, QUESTIONS AND ANSWERS

I thought I might coax the bass out, if there was one there, so I began throwing worms in up stream, thinking they would float down and he might go out for one, but the other fish got them and finally two little sunfish got hold of the same worm and as they were tugging to get it away from each other, there was a streak and I saw the largest bass that I had ever seen before go back under the bank. He must have taken the little fish and the worm with him, for I couldn't see them anywhere, but I thought the bass knew. I tried to catch him with good, lively nightwalkers, but he was too foxy, but I made up my mind I would get him somehow.

Well, I had found out why my uncle hadn't asked me to go; they didn't want me to know the bass was there. That night my uncle came in and I said: "Uncle Hen, I saw a big bass today down the river and I am going to catch him." He began to laugh and said he didn't think I would and he named over about a dozen men who had been trying for two years to get him, but he was still there. Every few days I would try some new scheme and every time any of the men who went fishing saw me they would say: "I heard you were going to catch a big bass that is down the river." I told them that I would fool them yet.

One Saturday morning as I was starting from the house with my pole, two men came along all dressed up with corduroy clothes and caps. They had beautiful rods with reels on them, a basket on their backs and each had a little net. I had never seen any fishermen quite so sporty before. They called me and said they heard there were black bass in the river and if I would show them where the best places were they would pay me. I thought I would go with them for I might learn some new trick, but I thought to myself that they might find the big bass, so I took them in the other direction.

Well, they still-fished and cast and used many kinds of bait and finally sat down to eat their lunch. After they had finished they showed me their fancy baits and told me that most of them came from England. They certainly interested me especially the gut leaders and hooks with gut on them; something I had never seen before. Then they

showed me some live bugs which they called dobson and told me they were fine bass bait and that I could find them in most of the brooks by lifting up the stones in the water. They fished until almost sundown without getting a fish and said they didn't think there was one in the river and gave it up. When they took their rods apart they gave me the leaders and hooks they had been using and then offered to pay me for my trouble. I wouldn't take their money; the leaders and hooks paid me. I think I was the happiest boy in Connecticut, to have that tackle.

I didn't say anything at home about what they had given me, nor did I sleep much that night. When I did I dreamed about tackle, nor did I want much breakfast in the morning. I was in a hurry to get to the river. As I was starting to go my uncle and cousin came along and said: "I suppose you are going to catch that big bass today?" I told them I would bring him back with me when I came. When I got almost down to where the deep place was, I waded down close to shore so the bass wouldn't hear me coming. After I had put on my new leader and fine hook I took out a dobson or hellgramite, as most fishermen call them. The hellgramite had hold of a big nightwalker and the worm was squirming for dear life to get loose. Now the idea came to me that if I put them both on the hook it would make a good, lively bait. I laid the bait on a big leaf from an oak tree and let it float down towards the deep pool, but it didn't get far, for out of the water went that big bass and at the same time I swung my pole around with all my might and when he landed he was back in the bushes.

That is how I fooled the big bass. We weighed him when I got home, on the Stilliard scales, and he weighed three and a half pounds.

There was quite a little talk about my exploit and some envy, but they said I outwitted them and they always called me captain after that.

H. A. DRISCOLE, New York.

Some of our readers may have recognized in the author of the above letter the artist whose paintings of fish have been reproduced from time to time on the covers of FOREST AND STREAM. His letter is a very good description of the New England country boy. It is interesting to learn that Mr. Driscole started his observations of fish at an early age and the ingenious manner in which he brought about the bass's undoing shows that he had given thought to the habits of the fish he sought to capture. We might add that some grown-up anglers would do well to emulate this.—[EDITORS.]

TIMING A RATTLE-SNAKE'S TAIL

To the Editor of FOREST AND STREAM:

NO one but a fool scientist would have thought of it in the first place, and in the second place common sense would have come to the rescue of any one else; only he was such a nice, vigorous snake and rattled so obligingly; and we got some interesting results anyhow which we have sent to a dignified scientific magazine. But the story part, and a brief account of the facts, properly belong to FOREST AND STREAM.

Hoover is his name, obviously because he is a food conservationist. He has been in Professor Dill's laboratory at the University of Iowa for nine months and has steadfastly refused to eat of his own accord. About seven months after his arrival he was forcibly fed two English sparrows, feathers, bones, and all, though he protested violently. Water is plentiful, however, and he sticks his head out and drinks like a cow. His fangs and poison glands have not been removed.

Hoover came from Texas about nine months ago and is a diamond-back, five feet four inches in length. He has about ten rattles, though some have been broken off, and he gets a new one every six months when he moults. We dumped him carefully upon the floor after loosening the wire netting from one corner of his cage. Then, by judiciously holding a stick on his head and pinning him down, he was grasped just back of the ears by an assistant, who held on for dear life. Then, I myself, courageously grabbed his tail and held on too. We took him to a table where we had some complicated electrical machinery and carefully connected him up with it so that we could get a permanent record of the lashing of his tail.

After we had made one record, he got tired of rattling since, from his point of view, it did not get him anywhere, so we turned him loose on the floor in order to arouse his wrath by catching him again. He very discourteously, started in my direction, and, directly and immediately, I was standing upon the table, quite out of his reach, looking disdainfully down at him from my high vantage ground, glad of my agility, and exceedingly proud that no word of terror had passed my lips.

Safely corralled again, we made another record and returned him to his box to sulk it out in peace and quiet.

Now, if you would like to know something about his tail, I'll tell you. He vibrated it on the average once in thirty thousandths of a second, but he was not constant. The extreme range was between ten and fifty thousandths of a second. Rather rapid, you think? But I expected better things of him.

However, the vibrations do not make the tone; the movement merely jostles the rattles together and they give off their own resonant tone, which has a pitch about that of the C below middle c on the piano. This tone is practically independent of the rate of the tail.

Mr. Dill has observed that Hoover, and probably all of his kin do not give a

warning rattle when about to strike. On the contrary, he strikes first and then rattles, the further to terrorize his victim, anxious to escape. The first strike probably rarely kills immediately. He also uses his rattle as a defensive weapon, a signal to intruders to get out of the way.

Hoover's residence at college has taught him one fact at least. He has learned not to strike when in the cage, except under extreme provocation, since to do so means a violently bumped nose and no victim.

MABEL C. WILLIAMS, Ph.D., Iowa.

INFORMATION DESIRED

We have received a number of letters from correspondents asking for the address of Mr. Ashley L. Houghton of Oregon. If he, or any other reader of FOREST AND STREAM who knows his address, will kindly send it to us we will be greatly obliged. — [EDITORS.]



Posed by Ledieu. Photographed by Hendee.

The rattler was grasped just back of the ears by an assistant.

CANOEING ON THE CONNECTI- CUT RIVER

To the Editor of FOREST AND STREAM:

I READ with interest the request in the June number of FOREST AND STREAM for information in regard to the upper reaches of the Connecticut River. I am quite familiar with that country and for the benefit of parties wishing to make a canoe trip in that region will state that West Stewartstown is as far up the river as anyone should attempt to go to start a trip down the river. Above Stewartstown the river is almost a continuous rapids until the Connecticut Lakes are reached.

Below West Stewartstown, however, there are no rapids of any extent for nearly twenty miles—more than that, if you take the crooked course of the river into consideration. At about two miles above North Stratford a fall called Hyman's Falls, is encountered, and for two miles canoeing is difficult.

Below North Stratford there is a

long stretch of level stream, extremely crooked; then comes Guildhall Falls (a short stretch only), then nearly twenty miles of fine canoeing ending at Fitzdale, Vt., where another fall is encountered.

Below Fitzdale I have no personal knowledge of the river. Parties will find ideal camping conditions everywhere. Farms are numerous all along the river and the people very friendly. There are pickerel, perch and eels every where above Guildhall Falls, and an occasional rainbow trout can be secured at the foot of falls or near the mouth of some small stream.

At Colebrook, nine miles below Stewartstown, several streams flow into the Connecticut, all of which contain brook trout in good numbers. I especially recommend a trip to the upper reaches of Sim's Stream for brook trout. Parties making this trip should obtain an auto to take them to the fishing grounds. Catfish are found everywhere along the river in the small lagoons. Below Guildhall Falls bass are quite plentiful

and are not fished for much. It is an extremely beautiful country and will well repay one for the trouble of the trip. I want to advise everyone who goes to Stewartstown to start, to lay over there one day and take an auto-trip to Connecticut Lakes. It is an inexpensive trip and one that you will never forget or regret.

ERNEST A. BROWN, Nashua, N. H.

A 'COON HUNT

To the Editor of FOREST AND STREAM:

ONE clear, sunny afternoon, during the latter part of October, 1918, while out squirrel hunting in the forest of southern West Virginia, the thought suddenly flashed into my head that the coming night would be a fine time for taking a scout in quest of old ring-tail.

Hurrying home I lost no time in getting in communication with my friend, Frank Smith, a born lover of the wilds and a true admirer of coon-hunting. Frank was highly in favor of the adven-

ture and promised to be at my house by six o'clock. I then immediately set about to perform the usual evening chores, in order that no time might be lost in starting after he arrived.

By the time I had finished supper Frank, true to his promise, was at the gate with his famous coon dog, Jack. Jack was a large black and tan hound, six years old and an open trailer.

After procuring a lantern, an axe, and my .22 Winchester rifle, I untied Hunter, a black and white hound almost identical in size with Jack, but a still trailer, however, and we started for the hunting ground.

About two miles west of the house is a large forest of oak and other hard wood through which a small river winds its way. We decided to make our way to this stream and proceed slowly along its course; letting our dogs hunt along the banks and through the surrounding forest.

The night was dark and still, and the air crisp and cool. The odor of the withered autumn leaves from the forest assailed our nostrils and, together with the autumn air, instilled into our blood the spirit of the hunting season once more.

On reaching the edge of the timber we untied the dogs and walked toward the river which was about a quarter of a mile away. The dogs, eager for the hunt, quickly dashed into the darkness ahead and were lost from view. Slowly we proceeded through the thick underbrush and over fallen trees, stopping often to listen for the dogs. In due time we arrived on the bank of the stream, and not having heard anything from either of the dogs, seated ourselves on a fallen tree trunk and waited. We had been sitting there only about twenty minutes when the deep bass notes of Jack's voice pealed forth on the still air. "Coon," exclaimed Frank, jumping to his feet.

The dog was about a quarter of a mile north of us and only two or three hundred yards from the river. Going toward the stream, he crossed and turned south on the opposite side. As I said before, Hunter was a still trailer and we had no means of knowing whether he was in the chase. Going at a lively rate, Jack passed opposite to us only a few yards from the water's edge. After running a little way further he recrossed the river and "barked treed." His voice was immediately joined by Hunter's showing that he was also in the race.

Hurrying to the spot we found the dogs gazing into the branches of a large oak which stood on the very bank of the stream. After searching the tree top for several minutes, I located the coon's eyes and immediately got busy with my little Winchester. At the third shot I succeeded in dislodging him and he crashed downward through the branches hitting the ground with a dull thud. As quick as a flash, both dogs were on top of him, prepared for a gallant fight; but a fight was out of the question, Mr. Coon was dead, the leaden pellet having penetrated his brain. He was a large male and exceedingly fat.

Throwing my catch over my shoulder we started up-stream keeping near the water in order to give our dogs a chance to intercept any wily old coon who might come down to the river to fish. After we had gone half a mile without hearing anything to indicate that the dogs had struck a trail, we sat down to rest and await developments.

Half an hour passed by and still not a sound from the dogs. Knowing that they must be near, we again started slowly ahead. We had not gone over fifty yards when again Jack's voice sounded forth on the still air. This time he was going away from the river at a lively rate; evidently in close pursuit of old ringtail. In about five minutes time, both dogs "barked treed" over near the edge of the timber. Frank and I made a dash in the direction of the barking and after falling over a few logs and rocks and sustaining numerous bumps and bruises, we finally arrived.



The two coyotes killed at one shot

They were barking up a large oak with numerous branches which still held a good portion of the summer covering of leaves. For the next few minutes Frank and I were straining our eyes in an effort to locate the game; but the wily old rascal was well concealed, and after a half hour of diligent searching, we decided to give him up as safe, so far as we were concerned. Frank suggested cutting the tree, but at my protest agreed with me that it would be a pity to destroy this giant of the forest; so we called our dogs away, leaving old ringtail safe among the branches.

It was now twelve o'clock so we thought it best to be moving in the direction of home. As we were emerging from the timber Hunter suddenly "barked treed," only a little way to our left. Hurrying over to him, we found a large opossum sticking against the side of a small sapling only a few feet from the ground. Frank shook him down and the dogs made short work of him. Once more we turned our weary footsteps in the direction of home, where we arrived at one A. M., tired, bruised, and hungry, but with cheerful minds and light hearts.

JOHN L. JONES, W. Va.

TWO COYOTES AT ONE SHOT

To the Editor of FOREST AND STREAM:

I WAS staying at my camp in the foothills of the Sierras, about seventy miles from Yosemite, for the holidays. It is a bare, rolling country, devoid alike of much vegetation or human interest, and is no sportsman's paradise. Only the most optimistic hunter explores it with any great hope of success. Still, one must kill time somehow, so three of us started out with the idea of getting the filling for a quail pot pie.

We had gone about ten miles up in the hills, and separated, my companions following an elusive "che-chako! che-chako!" that betokened a flock of quail while I kept along the creek, with my 20-gauge, double-barreled shot gun ready, and my mind full of the everlasting sporting hopes.

I had just come abreast of an open space and had stopped to rest when a queer rushing noise broke the heavy quiet of the gully. I had hardly time to turn when out from the brush burst two coyotes, coming straight for me, neck and neck, and going "lickety-lar-rup," too fast to get my scent or—! Was it for another reason that these usually solitary and timid beasts were hurling themselves upon me in this mad fashion? The horrible memory seized me of the coyotes crazed by rabies that I had seen killed recently in Nevada—the hideous deaths from the bites of such that I knew of. There was no time to let this fear possess me for they were coming like the wind. But suddenly, in the middle of their long lope, they stopped, threw themselves back—they had spotted me! That settled the rabies theory for with the spotting they had whirled in their tracks. But I had no time for relief. Like the wind they had come and like the lightning they would be gone, for there is nothing faster or trickier on legs than the coyote, if he wants to be. As they whirled I realized what magnificent brutes they were—fat and in full pelt. A coyote at any time in such country was an adventure—one of these fine specimens would be an actual prize. There was no time for aiming. With the wild hope that I would wound at least one I fired with hands still shaking from their first start of surprise—so rapid had the whole action been.

Instantly as though they were one body, the brutes reared in the air, their great jaws snapping viciously at each other, their legs spread, then with a convulsive throb they fell, simultaneously, both stone dead! I have bagged mountain goat and mountain lions, real he bears, and fish that were first cousins to the original fire-breathing sea serpent. But I doubt if my wildest hunt ever gave me the surprise that this kill in that quiet gully gave me on that sunny morning in California. Nor has any trophy I ever brought in excited more interest than the two coyotes, which I killed at one shot, did in the little mining town of Hornitos where such a feat had never before been heard of. It is needless to say that I was very much elated over my good fortune.

LOUIS A. GINACA, California.

WILDFOWL AND SHELLSHOCK

To the Editor of FOREST AND STREAM:

WILD fowl, alert to the faint bang of small arms even fired a mile or more away, have no dread of the monster cannon, mortars, aerial torpedoes and bombs that are fired at the U. S. Ordnance testing station at Aberdeen, Md., almost daily. In this enormous reservation, where men unless well posted fear to tread, the wild creatures of the air and many of the others as well are enjoying a sanctuary they can find nowhere else in the East. What is happening is in conflict with what sportsmen dreaded. Those who were looking for the worst are now gratified to note that the proving ground, where most efficient ways of killing human enemies are developed, has the redeeming merit of stimulating the breeding and encouraging the normal life of ducks, geese and swan. From the Susquehanna flats many of these fowl are going to the area where the shot gun is never heard.

Colonel William A. Phillips, commanding officer at Aberdeen, has written a letter to the Maryland Conservation Commission in which he gives the results of his observation. A part of his letter follows:

"All the restricted area of land and waters of the Aberdeen proving ground has been formed into a refuge for game. From all that I can ascertain there have been large numbers of ducks, geese and swan in the waters adjacent to the proving grounds. As they were not permitted to be disturbed by hunters I believe they did not fly as much as usual, and consequently the opportunity for hunters to shoot them off the reservation has not been so good as usual. This game does not appear to be disturbed by heavy artillery firing, as I imagine they take it more or less as a thunder-and-lightning proposition, and very quickly find out that it is of but little consequence to them. I believe that in a few years this reservation will cause a decided increase in the amount of game available, as it will prevent the rapid and almost continuous extermination of the game which has been taking place."

The Maryland Conservation Commission, with its office in the Munsey Building, Baltimore, will gladly welcome any suggestions that may occur to sportsman, growing out of this discovery by Colonel Phillips.

EDWIN J. HEATH, Maryland.

MANY WANT TO HUNT IN MEXICO

To the Editor of FOREST AND STREAM:

I HAVE received so many replies to my letter asking for a partner to join me in a hunting expedition which you published in May that I can't answer them all.

Please say through your columns that I have arranged with two men to join me and that an account of our trip will be published which I hope will be of interest to brother sportsmen. If any one, wanting to take a trip in these mountains, will write me I will be glad to arrange with a guide to go with him.

A guide who speaks English will cost no less than \$5.00 per day and saddle animals and pack animals about \$3.00 per day each. This place is 165 miles south of El Paso, Texas, and is reached by the Mexico, North Western R. R. There is also a good automobile road from Columbus, N. M. You can enter Mexico with an automobile without paying any duty. No license is required to hunt here and hunting for all kinds of game is permitted at all seasons of the year. The climate is so perfect that you can go out in comfort any time of the year. Hunting is best from October until March. Bear, deer and turkeys are very plentiful. There are also many wolves and lions. Dogs are very useful in hunting wolves, lions and bears. Anyone who can afford a three week's or a month's trip can enjoy some fine sport in this part of the country.

Many people writing me have sent stamped addressed envelopes for reply. American postage is not accepted here. Thank you very much for your kindness.

LEON A. CARRUTH,
Pearson, Chih., Mexico.



Salmon ascending falls in Yakima River

THE INDIANS' FISHING RIGHTS

To the Editor of FOREST AND STREAM:

A DELEGATION of chiefs of the Yakima Indians recently visited Spokane to protest to federal authorities against the action of Washington state officials in putting an embargo on fishing within 400 feet of the irrigation dam in the Yakima River at Prosser, Wash. Countless thousands of salmon annually ascend the Yakima seeking spawning grounds. The dam offers a temporary bar to their progress up-stream and in the shallow water below the dam the Indians have taken huge numbers of the fish. Salmon not used for food immediately are smoked by the Redmen for food reserves. Outside the 400-foot mark the water is too deep to permit of the fish being captured readily. The Indians' treaty rights state that they are not to be disturbed at usual and cus-

tomary places in common with other residents of the state, and it is on the interpretation of the treaty rights that the case rests. The matter has been taken up with the department of the Interior at Washington, D. C.

R. A. LAIRD, Washington.

THE TENT GROUND CLOTH

HAVING a ground cloth sewed in a tent has several disadvantages. For example—if you are the owner of two or three tents, it is necessary to have a ground cloth for each one. Then, too, it is not always practical to carry a ground cloth. Instead of having a ground cloth sewed in each tent, I had a 7x7 foot ground cloth made up with grommets on all four sides, spaced at 6-inch intervals. In each tent I attached 6-inch tapes along the bottom to correspond with spacing of the grommets. The ground cloth then may be tied fast to the tent and you have an outfit that is virtually dirt-proof.

When the ground cloth is not needed, it can be readily detached. On a go-light trip, for instance, having the grommets spaced at 6-inch intervals enables me to use the cloth as a pack in transit, and by folding it over and lacing two corners together makes a water-proof sleeping bag, thereby making it answer three purposes.

JAMES S. COWLEY, New York.

WHAT IS THE BEST CROW RIFLE?

To the Editor of FOREST AND STREAM:

MR. MAC ILRATH'S article "Crow War Declared," was very interesting to one who likes to shoot all the year round and must be content to stay away from the remote places where there is real game.

He suggests using the .22 long rifle cartridge. Some years ago I tried this cartridge on crows but was unsuccessful and concluded that it required a knowledge of sight setting and estimation of distances that I did not possess and could not seem to acquire.

The mark presented by a crow's vitals is so small and the crow is so wary in this part of the country, seldom offering shots at distances below 100 yards, that it seems as if the .22 long rifle was not quite powerful enough. I should say that the .22 Hi-Power with its very flat trajectory, accuracy at 100 yards and its light bullet would be an ideal crow cartridge if it wasn't for the fact that its range is too long for settled country and the shells are expensive. The 25-35 seems too powerful and the 25-20 W.C.F. not quite flat enough in trajectory or accurate enough on account of its heavily crimped shells.

It would be very interesting and of great value to prospective crow hunters of limited experience like myself if you would publish an article on the ideal crow rifle, giving particular attention to caliber, weight and shape of bullet trajectory, powder charge, sights and type of rifle. And just think of the discussion you would start among the gun cracks!

B WOODRUFF, Washington, D. C.

An answer to the above letter will be found on the following page.—[EDITORS.]

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THE RIFLE FOR CROWS

HE WHO WOULD SUCCESSFULLY HUNT THIS WARY BIRD WITH A RIFLE MUST HAVE ALL THE QUALIFICATIONS OF A MASTER SNIPER

By CAPTAIN ROY S. TINNEY, Associate Editor of FOREST AND STREAM



HUNTING crows with a rifle is the most difficult form of shooting extant. It is a sporting proposition plus, that calls for the maximum of accuracy in both arm and ammunition, the finest of sights, an ability to hold like a machine rest, and a thorough knowl-

edge of the exterior ballistics of the weapon used. The man who successfully hunts crows with a rifle is a master sniper, a skilled stalker and possessed of the patience of Job.

Here are the conditions:

1. *Accuracy.*—The vital spot on a crow is represented by a circle two inches in diameter, and any man who hits a two-inch objective at any range over one hundred yards, does so as a matter of luck, not good holding. Only the very finest of rifles will make a two-inch group at one hundred yards when fired from a machine rest. The men who can consistently keep *all* their shots in a four-inch circle at that distance are few, even on the target range. And to consistently place all your shots inside a six-inch circle at one hundred yards, under hunting conditions, calls for a degree of skill possessed by few riflemen.

2. *Sights.*—A crow never offers a clear, well-defined aiming point, except when he is silhouetted against the skyline, and for that reason a telescope sight is necessary to obtain what riflemen call "definition" as it overcomes the blurring effects and optical illusions caused by shadows and bad light. And best of all, the 'scope sight betrays every slight tremor of the barrel; when you can keep the cross-hairs steady you are holding like a rock.

3. *Trajectory.*—On paper, the problem works out this way; as the killing space is two inches in diameter we should use ammunition having the necessary degree of accuracy at one hundred yards to keep within that area, and a trajectory of not more than two inches. This is true in both theory and practice and such cartridges at the 25/35, the .256 and the .22 hi-power are all good medicine, *but* it is not safe to shoot such ammunition in the populated districts where crows abound, as the bullet after perforating, or more often passing the said crow, goes on a mile or so beyond its objective and causes some "innocent bystander" to play leading man at a coroner's inquest.

4. *The Safe Cartridge.*—The 22/5/40, commonly known as the "long rifle" cartridge, possesses the necessary range, power and accuracy to do the work, an ideal form of ammunition, except in the matter of trajectory, and that difficulty is easily overcome.

5. *The Continuous Danger Zone.*—The

trajectory of the 22/5/40 at fifty yards is 1½ inches and up to that range getting the crow is simply a matter of good holding, when shooting parallel with the surface of the earth. When firing up into a tree at an angle of from 30 to 50 degrees the trajectory curve does not exceed two inches up to 70 or 80 yards, and the bullet will hit where you hold, with the fifty-yard sight setting. Many of the old timers carefully "zero" their rifles for 75 yards, when firing horizontally, and this means that any crow shot at from ground to tree is their meat up to 100 yards, if the rifle is held right. Never for a moment forget that super-accurate holding is the "alpha and omega" of crow hunting with a rifle.

At 100 yards the trajectory is five inches, which means that the bullet is never more than that distance above the line of sight. For extreme range shooting, "zero" the rifle at 100 yards and hold low for birds fifty yards away. At 25 and 75 yards the trajectory error is not worth considering, in fact if you hold where you want to hit at all times you are reasonably certain of getting your bird. From ground to tree this sight setting will be effective up to 150 yards, a range well beyond the capacity of either man or weapon to intentionally or semi-consistently hit the two-inch vital zone.

6. *Measure of Skill Required.*—Take the Standard Small Bore Match Target prescribed by the National Rifle Association, 2-inch ten-ring, 4-inch nine-ring, and 6-inch eight-ring, all blackened for a sighting bull; back off a hundred yards, actual tape measurement, drop into your favorite position in your own peculiar way and "sight in." If you can put up a score of 96, or better, out of a hundred possible points, for ten consecutive shots, with *all* your shots inside the 4-inch nine-ring, you can hit crows, otherwise not. It is useless to attempt hunting until you have attained this degree of skill on the paper target. Some folks don't like paper targets because they tell the truth regarding a man's ability to place his shots; let the bang-bangs who slaughter tin cans at thirty feet sniff at "target shootin'" and brag of exploits physically impossible, it is all they can do, they can't shoot or they would not be satisfied with the tin can performance.

7. *The Rifle.*—Use a heavy single-shot target rifle, one weighing eight to nine pounds, the repeating arms are too light to permit of the close holding required and as one shot is all you will get, the repeating mechanism simply becomes a cartridge box. The telescope sight and a webb sling are important, almost vital aids to accuracy in the hands of a man trained to use them. Be careful to camouflage in the matter of clothing. Brer Crow is keen of vision; stalk carefully and intelligently; hunt patiently and persistently and you get the crow—maybe.

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And they're all good shells. But a good shell is a *better* one when it is loaded with Infallible or "E. C."

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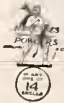
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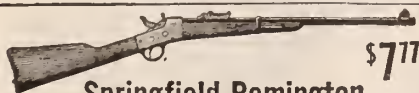
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A WYOMING SHEEP HUNT

FATHER AND SON FOLLOW LONE TRAILS AMONG THE HIGH PEAKS OF THE ROCKIES AND SECURE SOME MUCH PRIZED TROPHIES

By CYRUS THOMPSON



When we returned from "The Hills," and were waiting to take the train for home, a party of hunters came in and one of them had the head of a fine Rocky Mountain sheep. I can assure you I looked upon that as a prize, not so much with covetous eyes, but I did wish that I might be able to secure one of my own.

A few years later we planned a hunt to the Wind River Country, Wyo., which was to be for sheep, elk and deer. We arranged with two of the best guides at Cody, Wyo., and started, with ten pack animals, two guides, a cook, horse-wrangler and ourselves, six persons, and in all, a train of sixteen saddle and pack animals, for the hunting country, about ninety miles distant.

We traveled through the canyons, along the divides, and over the wind-swept mountains, at an altitude of over 11,000 feet at times, for five days, proceeding on an average about eighteen miles per day, and at the end of the fifth day, reached the place where our guides had planned to stop.

The first day we arranged our camp, and in the afternoon one of the guides and I started for a nearby mountain to prospect. My son was to provide some beautiful and toothsome mountain trout for our cuisine and my guide, Ned Frost, started on an old trail alone to look for signs of game. When we all

NATURALLY, I have been hunting big game for a longer time than my son, but we have had many hunts together and he is following closely in my footsteps as a Nimrod. In 1906 we had taken a hunt in Montana and had not been very successful.

returned in the evening, Ned was jubilant, he had seen a fine ram, not over a mile from camp, and we were to try our luck next day. We had the feeling that night of assurance that we were in sheep country, where for many years, we had longed to be.

Next morning Ned and I started. I had a saddle horse, which sometimes I would ride and at intervals would lead. On other occasions, where the mountains were too steep for riding, the horse would go ahead, and I would occasionally swing on his tail. Fortunately the horse did not resent my familiarity, and we made progress. We had seen several small bands of sheep through our binoculars, but no good ones and none that we wanted. At noon we ate our lunch, rested, enjoyed the beautiful mountain scenery, and started back to camp, distant about six miles in a round-about way, so as to cover as much territory as we could. Ned was walking in front, I was riding a little behind, and as we approached a point where there was a precipice of several hundred feet, Ned cautiously looked over and motioned me to stay back, and in a low tone of voice, told me he saw a fine ram about half a mile down in the canyon, and the same one, he thought, that he had seen the previous day. I alighted, crawled over and looked through the binoculars, and saw the ram feeding. I asked Ned if there was any chance to get it, and he said that if it would lie down so we could surely locate it, we might stalk it, but so long as it was moving around, we had but little show. We had not been looking at that ram ten minutes, before we saw it lie down near a tree, by which we could fix its exact location. We then started to get as near to it as possible. We tied the horse, laid aside our hunting coats, looked to our rifles, and our tedious stalking commenced.

(CONTINUED ON PAGE 439)



Cyrus Thompson and the fine old ram which fell a victim of his prowess



DOES A Five Pound Fifteen Ounce Small Mouth Bass Look Good to You?

This big bass was landed in September by Don Leigh, Fishing Editor of the Chicago Evening Journal, and the lure used was a PFLUEGER-SURPRISE MINNOW, but let Leigh tell the story: "It was a trifle blustery and cold, with flurries of snow the day this

big one struck. I had tried nearly every bait and combination of baits throughout the day without results, when I snapped on the Pflueger-Surprise. At the fourth cast this bass struck with a wallop—he was fighting mad—eighteen minutes he fought a rushing battle. I believe it was the natural minnow swim of the Surprise that coaxed the strike of this gamey bass when nothing else could interest him. The Pflueger-Surprise Minnow has the REAL SWIMMING

A Natural Bait

movement of a fish and it does not need any spinners, planes, plates or other hardware to make it do this NATURAL LIFELIKE minnow swim. The deep grooved mouth gives it the peculiar darting swim of the minnow and it LOOKS LIKE A MINNOW when reeled along in the water. I never go bait casting for bass, pike, musky or pickerel without a selection of Pflueger-Surprise Minnows in my kit, because I know what they will do in any water. They have the SWIM that INTERESTS the game fish."

There is a finish for every kind and condition of water. Look them over at your dealers—every first-class tackle or sporting goods dealer handles the PFLUEGER BULL-DOG BRAND tackle, because it is guaranteed without time limit and he knows that in selling you any Pflueger tackle that you will be entirely satisfied—you are getting the very best that can be produced in tackle—if fishing tackle could be made better the PFLUEGERS would make it.

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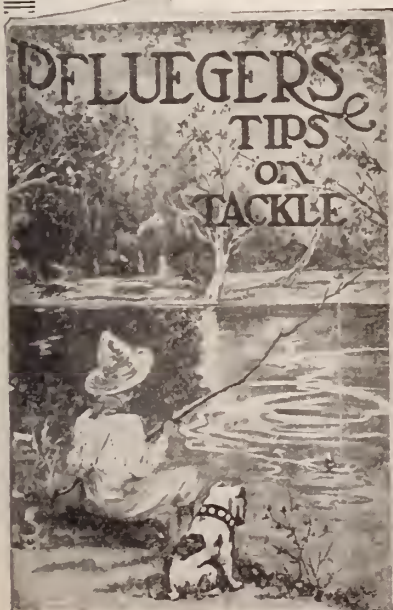


Your tackle box should contain the following for all kinds of bait-casting: Pflueger-Surprise Minnow, No. 3980, white a l over; No. 3973, white belly, blended rainbow back; No. 3965, white belly, blended green cracked back; each of the above 75c; No. 3949 chub minnow finish scale blend at 85c. Get this layout at your tackle dealers and get the game fish interested in your lure. If he happens to be out of stock send direct to us and receive the baits post paid, delivery guaranteed.

Don Leigh Tells You

A lot of interesting fishing facts in the latest edition of PFLUEGERS' TIPS ON TACKLE, that handy little pocket sized book of real fishing information. He is well known as an authority on bait casting and has written some rattling good chapters on artificial baits and how to use them, the spoon and what it will do, how to play the fish and a great chapter on natural baits. If you want to know how to get the big ones and when, just write today for your copy of this snappy book—IT COSTS YOU NOTHING but the time to write "send it to me." There are many other fine chapters by other leading authorities on every angle of the fishing game, and Pfluegers' Tips on Tackle cannot help but make your fishing better and your stringer average higher. Of course today is the day to write in order to be sure of getting a copy before the present edition runs out.

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Abbey & Imbrie tackle is for sale wherever there are progressive dealers and anglers who value their sport high enough to demand the best equipment. But in a last-minute rush you may be crowded into feeling that less meritorious tackle will do "this time."

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BIFF, BANG! RIP! D—!!! but will be found equally ready for use in ten years as today. Friction top emergency cans, 35 cents each; by mail, 40 cents each. Canada, 47 cents each.

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THE SECRET OF ALLIGATOR BAY

(CONTINUED FROM PAGE 398)

back from this expedition now occupies an honored position in the lodge of Camp Wonposet, Bantam Lake, Conn. Mr. King presented it to Robert Tindale, manager of the boy's summer camp.)

Some distance on, Roy and his friend shot a second and even larger alligator. It was not killed however, and gave savage battle, as Hendry assisted in roping it and dragging it into the boat. It lay quite still, apparently dead, but when Roy went to examine the wound, the tail lashed upward and the inquisitive hunter lost his balance, toppling over into the water. No time was lost in extracting him from his greater peril.

"Alligator Bay is yonder through the channel at the end of this little bay or lagoon, or whatever its peculiar formation permits of calling it," said Mr. King, "and the locality is well-named. Never, anywhere in Florida, on either coast, have I seen so many 'gators."

Roy was for shooting this ugly-tempered fellow in the boat, but Hendry placed a detaining hand on the rifle. "Don't do that," he warned, "it make bullet hole through boat. Much bad business." Whereupon Hendry poled ashore and on a likely point under the bays, put an end to the 'gator in truly professional style.

A dozen fine mangrove snappers were caught by the party before they pushed on to the entrance to Alligator Bay. And it was at this entrance that the second posted warning was discovered. There was no attempt at compromise; a pole had been driven into the muck on the bottom of the passage, at its narrow, winding mouth, and fifty feet off shore. Near the top was nailed an old box top and in red letters (berry stain) was crudely drawn this significant command: "STAY OUT."

The *S* was turned the wrong way, however, showing that some uneducated person had written the inscription.

The skiff was paddled up to this impudent sign-post and Mr. King was not slow to discover that the entire contraption was of recent manufacture. In fact the berry stains were still wet! This then, would indicate that there were others in Chevelier Bay and that the passage had been posted with an unmistakable purpose.

The cut itself was fifteen feet wide, with not more than two feet of water. Five young mangroves and bays had been cut near the water and had fallen criss-cross, blocking the entrance.

And through this mystic screen of trunks, limbs and matted leaves, there came an Indian canoe! Not a sound had been heard—not so much as a touch of paddle to water or the rustle of brush. There were three young Seminole bucks in the hollowed-out cypress craft, looking as sleek and shiny and unreal as tho' carved from wood.

Mr. King and his companions were too startled at first to say a word. It had transpired without warning and while they were still interested in the sign on the post. The older Indian carried a 20-gauge Winchester shotgun and it was

—new! Piled in the stern of the canoe, were many deer skins.

"Howdy," Mr. King called to them.

But they did not respond. Their expressionless faces were set in the direction of Chevelier Bay.

"See if you can make them talk," said Mr. King to Hendry, who was always a "good mixer" when it came to Seminoles.

Some guttural talk followed, as the guide attempted to engage the bucks in conversation. The canoe and its occupants, without ever really stopping, crossed the lagoon and disappeared into the passage that led to Chevelier Bay.

"Could you get anything out of them?" Mr. King inquired somewhat eagerly.

Hendry's eyes were wide and his manner strange, as he said:

"No want to talk. Only say, 'Don't know.' They go to Smallwood's store at Chokoloskee with deer skins. Tell me no good passage into Alligator Bay."

IT was well along in the afternoon and they turned back, rowing and poling with all their strength, to make the *Mae* before nightfall. Hendry was silent, uncommunicative, scowlingly unlike himself during the entire trip. When the opportunity afforded to get Mr. King off to one side he explained his reticence.

"Please, we stay away from Alligator Bay," said he, "better to not get rifle bullet. Indians no trouble, white men much trouble. I think some hide behind cut trees at entrance back there. They watch us. They put up sign just for me, you an everybody."

"Hendry," was Mr. King's response. "I have my plans made for tomorrow. You come with me. John and the others will fish at the far end of Chevelier, outside the entrance to the lagoon. They will never be very far from us and John has instructions to fire his revolver if anything goes amiss. It is my intention to see what is happening in Alligator Bay."

As per these arrangements, although the fishermen were not allowed to know what was on the docket, Hendry and Mr. King went as far as the tarpon grounds with the others and then, in the glade skiff, shunted off to the mainland at the left, explaining that they thought they could find deer—and fresh meat would go well for supper that night. The skiff was concealed in the bushes along shore and using their machetes liberally the pair set off for the east side of the lower end of Chevelier and the lagoon. They first came upon open prairie and then an impenetrable mangrove swamp.

It was so dense and the roots so tangled that progress was necessarily slow. According to Mr. King's reckonings they were now nearly opposite Alligator Bay, having passed above the narrow neck of water leading from the hidden lagoon. There were frequent signs of deer in the black earth and multitudes of birds of many kinds. Hendry said that they saw no less than fifty water moccasins in that one strip of 200 yards-wide mangrove swamp. The guide was not afraid of them. His quick eye would measure



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SAY, what a trick you'll turn for your tongue and taste and temper when you finally get down to bed-rock smokes and let some of that topjoty Prince Albert float into your system! Just will put the quiz into your thinktank as to how much pipe or cigarette-rolling fun you've gone shy on—and, you'll work in a lot of double headers for quite a spell to get all-square!

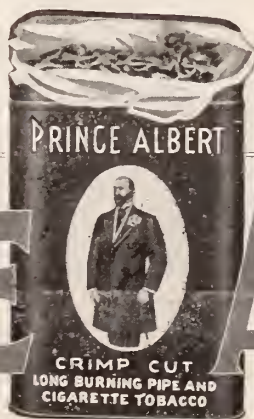
What's the idea kidding yourself when you know what P. A. will do for your smokespot; when you know what it is doing for men all over the civilized world! You can't hit a happier job than to stock a supply of Prince Albert, jam that joy'us jimmy pipe chuck-full and blaze away! Why, it's like falling into feathers when you've been batting-it-out-on-a-board!

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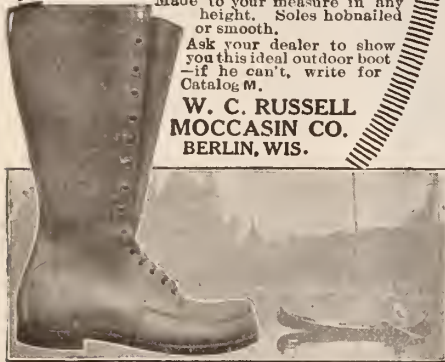
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distance and he would slash down with his machete, cutting them into bits with a sort of savage satisfaction.

Here, too, were water-holes, black, ooze-filled and joined by subterranean passages. There were alligators beyond counting and crawfish, as on Sweetwater River.

But what they had longed to see now broke upon their vision, brilliantly illuminated by the sunshine. Through the mangroves water glimmered and shimmered and a few steps brought them to the eastern shore of a tropic jungle-surrounded bay—Alligator Bay! Shielded by the trees, they peered out and into this strange aviary of bird life. It was a body of water approximately one-half mile long by three-eighths of a mile wide, while the depth seemed to range from four to seven feet. Certainly its natural beauty could not be exaggerated! The environment of three species of bays, the myrtle and the mangrove, was further elaborated by orchids, flaming red clusters of air plants and vines that grew luxuriantly over and around everything. Here, indeed, was a secluded wonderland, approachable by boat via two possible channels, one leading from Dr. Tiger's Lake and Lossman's River, to the south, and the other from Chevelier Bay. But both of these approaches had been sealed by fallen trees and as we have had occasion to know, "posted."

IN the centre of this attractive body of water was an island—a large circular island, studded with bays myrtles and mangroves, and strangely flecked with white. Indeed, the green of the foliage was almost snowy from the droppings of birds. As the afternoon waned, and the wanderers returned from their feeding, the fluttering wings of hundreds upon hundreds of pure white egrets intensified this ghostly appearance. It was like a fantastic, spirit-isle, cloaked in transparent lacery of mist.

"A marvelous sight!" muttered Mr. King, deeply impressed by what he was seeing, "it doesn't look real, Hendry. The egrets and other birds have transformed the island into a sort of stucco imitation. It is a Mardi Gras float of the Florida wilds, drifting down the bay! And see—" he pointed upward to the sky—"the egrets are coming back to roost!"

"Big Rookery!" nodded Hendry, "lots birds. More than I ever see. Indian no want us come up passage to Alligator Bay. This why."

"It is one of the attractions of our strange acquaintances in these parts," said Mr. King, "and I am sure there are others, Hendry, hidden far up the winding rivers and creeks, where few men ever see them. The egrets of Florida have not gone forever. There is yet time to save them if the rascals who shoot up these rookeries can be apprehended and severely sentenced—sentences that will frighten those who still roam at large up Chokoloskee."

Hendry shrugged those expressive, bony shoulders of his.

"So long rich white lady pay big money for plume, Indian and Chock folks get plumes. She stop buy, they stop kill."

Mr. King clapped him on the shoulder. "Right!" was his exclamation, "there is the real solution of the problem. Hendry. You are a true philosopher. But this vivid ghost-picture in the heart of Alligator Bay was what I came miles to see. I must confess that my other work, while necessary and interesting, takes second place. And I only regret that John will not be able to see it."

"No bring him?" Hendry asked.

"No, I am afraid for the boy. We are taking a long chance, Hendry. You know it; I know it. Somewhere in the shrubbery around these wonderful shores there is a guard, a watcher, the menace of the rifle shot and the deadly ambush. That is why we must ourselves turn back without even stepping out on shore. It might mean our lives."

Without a word, Hendry turned facing the depths of the swamp and the back trail. It was what he would have said himself.

But Mr. King was taking one last look. Cold shadows were beginning to fall across the water from the hedge of trees. Stark and unsightly, like roots of exposed teeth, the marginal extremities of the mangroves on the rookery loomed grey-white in the afternoon glow, under their lathering of mud. And always, overhead and across the hushed waters and in the massed foliage of the little round island, the egrets winged restlessly.

Mr. King could see the tragedy enacted—the men hidden ashore near the rookery, the first shot that sent the alarmed birds upward, the fair marks against blue sky, the cry of agony and the helpless white thing that suddenly pitched into the lake. It was such a dastardly act! There was a coward in every gunshot!

"You come?" asked Hendry.

"I come," answered his companion.

AND so we have all but completed our story friend reader. If it has been overlong and filled with the things that were always just ahead, you must be forebearing. We who have written this tale knew that there was tragedy at the end. We knew that we would finally come upon the scene of a crime against the most beautiful and the most harmless of birds. That knowledge has frankly oppressed us.

Now—as we write, there are bad Indians and worse white men up the tangled trails of these same rivers, and the traffic still continues. Perhaps you who love gun and rod may care to cover the same ground some day. Game wardens will shake their heads when you mention it. There are so many unmarked graves near Chokoloskee and Chevelier.

As for our own party, they hunted and fished another day and then descended Chatham Bend River to the welcome gulf. The voyage around the cape and up the other coast was uneventful, if so we may term those golden, lazy hours of sport. At Miami the thankful strangers took their departure, and so far as we know, have not been seen by any member of the party since. What had prompted them to ascend that far creek above the shell mound region will

(CONTINUED ON PAGE 430)

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HOW TO IMPROVE IN BAIT CASTING

(CONTINUED FROM PAGE 401)

is one of three things that will happen. Your weight went out onto the grass in the direction of the target just as you intended it should. If not, it either shot up into the air over your head or else it plugged into the ground at your feet. If it went out towards the target, your cast was correctly made. If it went up into the air, you released your thumb pressure too soon. If it shot down to the ground directly in front of you, you did not release the thumb soon enough. There you are. With that information, you should be able to make good headway.

After you get so that you can land the weight out in the grass in some direction, which very likely will not be very near the target, then you will be ready to try for accuracy. You have got to acquire accuracy, for a caster without it, is not a caster. No, he is a dangerous customer to get close to when he is in action.

When you swing your rod forward in the cast, swing it as you would a twenty-foot pole and were going to "swat" a woodchuck or skunk with it. In this instance, the hat on the grass is to be the victim. What I wish you to understand is that you must bring your rod forward in a direct line with whatever you are casting at. This movement will send the weight out towards the target. If the weight is going too hard and too high it will fly completely over and beyond the target. If this is the case, thumb pressure is to be applied to the spool and the weight will slow down and settle. A little practice and a good deal of judgment will soon enable you to drop your weight about where you want it.

After you have managed to acquire a bit of proficiency, then, as your weight shoots out, keep your rod pointed directly at it. As the weight settles, lower the rod tip. This movement permits the line to draw in a direct line from the reel spool with a minimum of friction. Thus you are enabled to cast with little effort and at the same time your line will last longer.

Now you are ready for a word or two about retrieving your lure. As soon as the bait has landed on the ground, transfer the rod to your left hand. Grasp the rod by the grip that is above the reel seat, having the hand underneath with the thumb up on the left side and the index finger up on the right side. Press the rod butt against the stomach and reel in the line, guiding it onto the spool as evenly as possible with the thumb and index finger of the left hand. Be sure to spool the line evenly with a regular traverse across the entire width of the reel spool, not allowing the line to pile up in a ridge at any place or permitting it to run up the ends of the spool. The success of every cast lies mainly in the manner in which the line was wound onto the spool after the previous cast.

While you are getting familiar with this part of the art, keep your eyes on your reel so you can see what you are doing. Later in the game you will forget

all about spooling your line, for it will be done without any special thought on your part.

As you begin to become proficient in casting and retrieving, then work your rod butt away from your stomach, for besides not being a graceful position, it is unhandy when you strike a fish. The style to adopt is to hold the rod with the click end of reel in the left palm. All fingers underneath the rod. Guide the line onto the spool with the tip of the thumb which will extend over the top of the reel when held as described. Press the line first with one side of the thumb and then with the other. This position gets the rod well away from the body and permits freedom for a good strike to set the hook when a bass takes hold. And set the hook good and solid when you do get a strike. It is a mighty good start towards getting the fish onto your stringer. A fish with the hook set deeply doesn't unhook himself even if you let him run around loose for ten minutes. "Spitting out" the hook never happens if the bait is well in.

If you will now follow the instructions I have given, you should soon be able to cast very well without any personal supervision from a caster. Above all things, stick to the overhead cast such as I have described. Don't take up the inefficient underhand cast to start with or you will keep it up and never amount to a "hill of beans" as a bait caster. Remember this, if you happen to be fishing and meet a caster who employs the underhand cast only, you just make up your mind that you will have him nicely trimmed before the day is over. The overhead caster puts his bait just where he wishes it to go, while the average underhand caster puts his lure just about where it happens to land. This is not true in every instance, but it holds good in the majority of cases.

Well, the time soon arrives when you are in shape to try your hand after fishing. I suppose I might tell you what to do, where to cast, where to go, and a whole lot of other things, but I'm not going to do it in that way. I'm going to take you fishing with Jimmie and me. Jimmie, by the way, is my wife. And besides of all, the fishing trip that I am going to take you on is not ancient history. It is a trip that I took since I began to write this article. If you will look back to where I wrote: "A little practice and a good deal of adjustment will soon enable you to drop your weight where you want it," you will see just where I quit writing for the time being and put my tackle aboard my little runabout which already had Jimmie seated therein, and sped away from Jewett City, Conn., to Pachaug Pond about three miles away.

Pachaug Pond, which in reality is a small lake, contains a lot of water when full. In fact, it covers about 1,000 acres but along in August our mill has drawn heavily on the supply and about 40 acres would be about the size then.]

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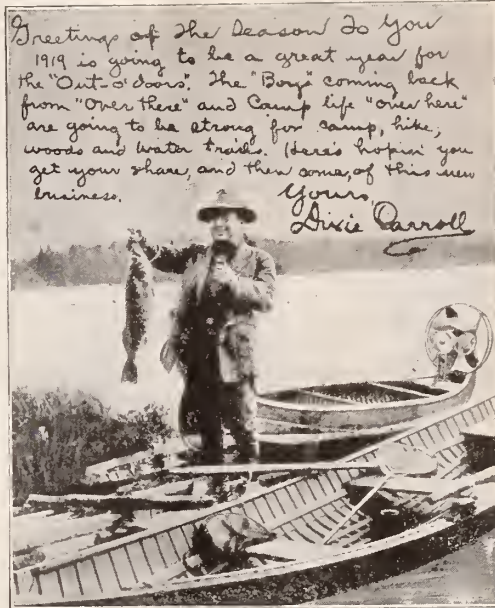
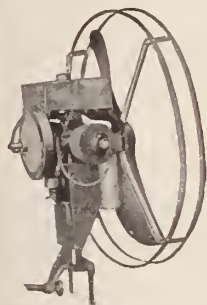
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is a delight and a terror to the bait caster. A delight because there are bass there—old, big, pot-bellied fellows with enough weight to set your nerves atingle and bend your rod till you think it is going to snap. A terror because the pond is dotted with tree stumps around which the fish hang out and around which many a line gets twisted and many a lure gets lost. Just the same, where the fish are, there the fisherman will go. That's why we went.

WE pulled away from shore with our tackle rigged. I had tied a gold-colored minnow to Jimmie's line, while to my own I attached a dark red minnow. Underwaters both of them. The underwater minnow is the best all around lure in existence and don't let anybody lure you into believing otherwise. And furthermore, it should be one that sinks readily.

Merely casting it in any old direction does not bring satisfactory results. Bear in mind that bass, like Redskins, like to hide away and lie in wait for their unsuspecting prey. When their victim gets near at hand they dart out and their intention is to bring about a funeral. This habit of the bass has brought many a one to his doom.

We began casting close up to the stumps where they stuck up out of the water. The closer the better. I told Jimmie the effect to try to obtain was to have it appear as if something had fallen into the water by accident and immediately put up a violent struggle to escape.

With a good splash, we slapped the minnows right up close to the stumps and immediately started them moving. I shot my lure in between two stumps at a third one that stuck up out of the water about thirty feet back of the pair. The instant it hit the water there was a swirl and a violent tug. That bass was a big one and he cut off to one side and got a quarter turn about one of the stumps in front. Jimmie tried her best to get the boat up to the stump so I could free the line, but we were too late. I felt three or four vicious tugs and the line slackened.

So on we went. We moved along about three hundred yards and never got a strike, but we kept casting steadily for that is one of the secrets of success.

One old, big stump stood up in about six feet of water and I cast my minnow right up against it at its water line. I had not retrieved a foot of line before the strike came. I kept him on the move and gradually shortened line until not more than six feet were out. Then I began to lead the bass about in a figure eight until he was pretty well quieted down. I then swung him to the side of the boat and leaning over, shoved my thumb into his mouth and clamped my index finger beneath his underjaw and pressed down with my thumb. Lifting a bass in this way prevents any movement on the part of the fish. The fish must not be allowed to hang down straight but should be kept at a slight angle from vertical by pressing with the index finger underneath the lower jaw.

This bass weighed 2¾ pounds. Pretty good for a starter. It was Jimmie's

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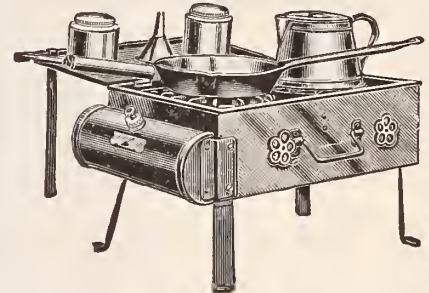
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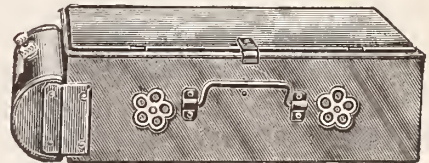
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H. S. WATSON

turn next. I rowed over to a bunch of stumps and snags and held the boat in position while she did the casting. About the second try, something attached itself to her lure. From the rumpus it kicked up, I decided that it was a bass worth getting onto the stringer. Using our regular tactics as well as keeping the boat away from the stumps, we soon had our bass on the scales. Three pounds and a half, good full weight. And five minutes later, Jimmie had her hands full again. Three pounds and ten ounces this time. It was some fishing for our neighborhood. Then I struck one that matched my other one. Just two and three-quarter pounds. And the next thing that we did was to quit.

It is up to you now to get busy and learn the most fascinating way there is to capture game fish. First learn to cast. Then don't try to cast too far. When on a lake or stream, keep casting, for you never get a fish with the lure in the boat. Don't keep changing baits, for this trick wastes a lot of good time. If the water you are fishing in contains rocks, stumps, lily pads, etc., around these places look for your strikes, especially during the middle of the day when the fish as a rule are loafing. Early in the morning or in the evening, the bass will run into the open water close up to shore where the water is very shallow. That reminds me of a sight I witnessed this summer.

I heard a splash and saw where a big bass had just jumped for something right up at the edge of the shore. While I had my eyes on the spot, a little sand-piper came teetering along. He stopped and stepped to the edge of the water and that bass came right out after him and almost landed high and dry. The bird escaped and the bass scooted off into deep water.

Just after we made the trip related above, a sportsman from New York City came to my place and I invited him to go along. His casting was far from being passable, but I kept worrying him and insisting that he cast where the bass ought to be.

When that afternoon closed, we had five bass that weighed: 2¾ lbs., 3 lbs., 3½ lbs. and 4 lbs., 10 ounces. The weights are actual, not guessed at. Furthermore, plenty of people saw the fish. I took lots of pains to see that they did.

THE SECRET OF ALLIGATOR BAY

(CONTINUED FROM PAGE 424)

always remain a mystery. They never talked and they were never asked a question. But it is a land of mingled romance and of crime.

From such incontrovertible evidence as was reproduced in the previous chapter it may be seen that the authorities are now at work in Florida. The stolid intermediary of the plume traffic—the Indian, who is stupid when asked questions, has been put behind prison bars. Others, further up in the scale, have also been apprehended. There are forces in action. Whether they will act speedily enough to save the last of the Florida egrets is a question. We hope so.

(THE END.)

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HAWK HUNTING WITH A DECOY OWL

(CONTINUED FROM PAGE 393)

annoy the owl, but never gets too close. After a few dashes he often suddenly alights on a nearby post where he stays a few minutes and then comes back to renew the attack. That they really annoy live owls I know, for, when using a live Great Horned owl for a decoy one year, he was on the lookout all the time when they were flying, and when one came he would crouch lower and snap his bill at them and appear really worried. Quite often when a Marsh hawk came along, the live decoy seemed quite unconcerned and bored and paid little attention to it, but sometimes one would come that looked as if it meant business and then the owl would wake up and be on his guard. I have heard it said that no Sharp-shinned hawks should be shot, as nature takes care of the supply and demand as regards food, but when the amount of killing of song birds by these hawks is figured up, I believe that most people would prefer to have the song birds. I remember one day when the keepers of a club shot one hundred and thirty five Sharp-shins. If we figure that each hawk killed one bird a day for food, we get the almost unbelievable total of forty nine thousand, two hundred and seventy five small birds that have gone to feed these hawks for one year. If we half this amount, which might possibly be more fair, we get twenty four thousand, six hundred and thirty seven, which is still too many birds to be sacrificed to furnish the annual food supply for one hundred and thirty five hawks.

THE chief difficulty I encountered in photographing the hawks while flying, was in properly focusing the camera. If I focused on the owl, the hawk would be a few feet beyond it, or on the side nearer me, and would be out of focus, so to get any pictures that were at all good it was necessary to expose a great many plates. Another difficulty, almost as great, was getting the hawk in the picture at all. When a hunter is shooting a bird, his gun is moving along with the bird and he is able to lead it as much as is necessary; with a camera, however, it is more difficult, as it must be fixed in one position, so to get the bird on the plate it is necessary to anticipate the speed and to press the camera trigger at the correct moment. Time and again I have snapped when I thought I would get a fine picture only to find, on developing, that the hawk was not on the plate at all. This was proved to me one day when a large Bald eagle, the first and probably the last one that I will ever have a chance to photograph, came sailing up to the owl and flared up but did not come nearer than ten feet to the decoy on which my camera was focused. The picture is not at all good but shows the great size of the eagle and serves as a reminder of the difficulties and the uncertainties of this game.

It is wise to have a gun in the blind

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as well as a camera, for quite often the unexpected happens and a Cooper's hawk or a Goshawk flashes up out of nowhere, makes a dash at the decoy and departs as swiftly as it came and, if not shot, goes on about its life of killing. Museums are always glad to have specimens, so if the shooter does not care to keep the birds he kills, he can always send them to the men who are making a study of birds, and in this way the birds that are generally thrown away or hung up on the nearest tree will become of some use. It takes very little practice to distinguish the different hawks. When shooting them, care should be used not to kill the less harmful varieties, but when a Sharp-shinned, a Cooper's, or a Goshawk is killed then one can feel that he has done a good day's work. Practically every hawk that comes to the decoy comes in some different manner and whether one is shooting or photographing them, they make difficult targets, and the result whether you have dead hawks or photographs, is well worth the time you spend on them.

FRESH WATER CANOE CRUISING


(CONTINUED FROM PAGE 395)

cook needs plenty of dry, hard maple, blackjack oak, white oak, pignut hickory and white birch to make a good cooking fire. The surest way to have a slow meal that is forever cooking is to give the cook any old dry trash wood such as balsam and pine. There is little heat in them, they are "out" most of the time and the pot is forever boiling. But black jack and maple will not only start the pots up in no time but their coals will keep them going long after the flames have subsided. Get the boiled things going first, the pots over the fire amid the flames and the potatoes and onions peeled into the "mulligan," a handful of rice added and some salt and you can put the cover on and let her simmer. Add soup meat if you have it, or grouse breasts, chunks of deer meat, cut-up rabbit, any old meat component; add a bouillion cube for each man when the stew is nearly done thirty-five minutes later, and she will taste fine and keep you in good health. Fry your fish dipped in egg and rolled in corn meal and set someone to tending it over a bed of coals, while you make up the corn bread batter, squaw bread dough, or doughnuts. These all require a couple of blazing logs lifted up off the main fire and set on the edge of the wire grate, and the baking tin is then put under them on top of some coals, or the reflector baker with its pans full of biscuits is set in front of them.

Boil rice in the other pot and tea in the pail. For breakfasts, have your flapjack flour, coffee, fish fried in bacon grease with the bacon on the side, and potatoes cubed and creamed. Plenty of these, with lots of fruit, will run you all day long. Aim to get the canoes in the water by eight o'clock, stop paddling about noon for an hour to serve a cold lunch of ham or sardines, with choco-

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late, cheese, prunes and raisins, nuts and some graham crackers and be on your way again in an hour. At four the definite stop for the day is made. Pick a good camp site, on a point if possible to get away from flies and mosquitoes, and be sure to pitch somewhere near a spring. Any river that is inhabited, that is, has farms and small towns on its banks, is unsafe to use for drinking or cooking water. My boy once got a case of typhoid on one of our canoe cruises, where there was but one town on the river bank. The rest of us were badly upset and just missed typhoid, but he had a severe case which nearly cost him his life. Since then I have always insisted on a spring for water or else have boiled it before using. And, by the same token, refrain from dipping up the river water in a cup and drinking it, unless the river is wholly wild, like the Allagash in Maine or the Lumbee in North Carolina, or the Mullica or Wading River in New Jersey, all of which streams are good canoeing.

In lieu of a sail, a good thing to take along is a tarp for a floor cloth, made of some light waterproof tent textile. If you have a mast step screwed to several ribs of your canoe, and a detachable cross bar with a two-inch hole in it for a mast hole, and two brass hooks with wing nuts to secure the cross rail to the gunwale, you can easily cut spars at the lake bank and rig the tarp as a sail when you have a long, down-wind traverse to make. Without the step and bar it is rather awkward to rig anything that will stand wind pressure and not become dangerous from coming adrift and upsetting the canoe in a gust. In making any traverse, study your weather and white caps before venturing out, for it is braver to say "No!" and stay ashore wind-bound, than to be foolhardy and go out and get swamped. If you must make the traverse and the waves are high, do it with canoe lightly loaded in two trips, as a logy, heavily-loaded canoe is a dangerous thing in choppy seas.

In river work, haul her over logs, down trees and the like by getting out on the log, one on each side and sliding the canoe over between you with the duffle aboard. Keep cutting across the heads of bends, the bow man anticipating the river at each bend and getting the canoe headed for the shallows, when the stern man can then exert his strength and shove her ahead. Keep out of the full force of the current in the bends; it only makes you paddle twice as far and hard and the force of the current is always throwing your canoe broadside onto alders and rocks in the elbow of the bends. In running a rapids, be first sure that they are safe, as they change almost daily with the height of water. Look for a portage trail, if you know nothing about them, and if there is a landing above the rapids, with a clearly defined trail through the forest, it is a safe bet that the rapids are dangerous and have been portaged by better men than you. In running white water the stern man has the say and the bow man should not embarrass him by attempting to fend off, slice water

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with the paddle, etc. Only do this when it is clearly evident that the stern man has not control enough to prevent her ramming. As a rule, the water parting around a rock will carry the bow clear if the stern man guides her and sees that the stern follows clear by back paddling on the *same* side as the obstruction. In any event keep out of the main force of the current if there is an easier passage, and always look over a rapids on foot ashore before running it. In many rivers and broad creeks there is plenty of white water not dangerous, only exciting. Follow the current where it is clearest of rocks and, in passing one, back the stern of the canoe *away* from the rock, letting the current carry the bow clear. In all rapids—running the duffle should be lashed in by the tracking line; in traversing a lake everything should be free and clear, as you may need to empty her in a hurry. In both cases, stick to the canoe in case of upset; get her ashore in the rapids, and dump the water out of her in the lake, letting the duffle float where it will until the canoe is ready again. In both cases the paddles should be lashed to the canoe with about six feet of cotton rope, as they may be your only hold on the canoe, and if she once drifts away from you in a lake you are lost. Two men treading water can lift a canoe clear enough to turn out most of the water and then can get aboard from bow and stern simultaneously, being careful to jump at the same moment so as to balance the weight. One person alone can hardly empty a canoe, unless over sixteen years of age and husky. If strong, you can rock it out or shove it out, either by swashing it from side to side, letting it slop out, or by giving it smart shoves to and from you when the momentum of the water will slop it out over bow and stern alternately. A boy of twelve, or a light man, had best get inside the canoe and lie down in her awash. She will not sink, but will lie with about an inch of gunwale exposed. Keeping her on an even keel, the water can be dashed out of her if reasonably calm, but, with a sea on, the best way is to go astern and kick her ashore, climbing in and lying down in her when tired. Sooner or later she will drift ashore. Keep cool, play safe, and do not start anything rash that you may not be able to finish. The canoe will always float herself and you, and if not too cold, you will arrive

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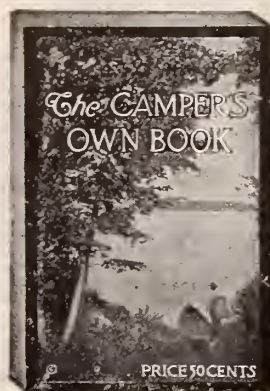
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In river travel, the banks are near and if you stick to the canoe no eddy can pull you under. As a matter of fact upsets are extremely infrequent in canoe travel. I have yet to have my first one in over thirty years' of canoeing in river trips, and in my sailing canoes I have but three upsets in all that time to record.

Here are a few canoe cruising wrinkles that we have found worth-while knowing during our many long canoe cruises, aggregating, I should say, several thousand miles of inland waters: In the first place, a sort of crate in which to stow all manner of kitchen duffel is wanted. It makes a central load, around which the duffel bags may be stowed, and is carried with a woven webbing harness. We found such a crate in the light, strong, maple strip container used by the groceryman. The strips are pinned together at the corners by a wire pin, and it is light and strong and about 12 x 14 x 20 inches in size. It is shown in our illustrations, hung from a cross-pole by marine cordage, so as to make it ant and squirrel-proof. Alongside it is the aluminum reflector baker, which, with its bread-board, goes in a canvas bag. This will cook biscuits or cornbread for a party of six easily. With it hangs the ordinary kerosene lantern, which is all right for canoe cruising, as it stows upright under the turn of the bow gunwale where it cannot easily be upset. The extra oil for it is carried in a can with screw top, for kerosene, once let get abroad, will spoil everything it touches. However, for a long, steady camp light, never getting out of order, the plain lantern is welcome as a canoe cruise accessory.

FOR light summer camping, the plain tarp, say 9 x 12 feet, is one of the lightest and best shelters. It can be rigged in a variety of ways ashore, as shown, or the canoe can be lashed to two trees on its side and the tarp stretched over it and guyed out in front, with a center pole in the front hem holding it up like a peak. The lower side of the canoe makes a fine shelf on which to arrange all the kitchen outfit, and there is plenty of room under it to build a fire and cook when it rains. A stake table, made of the crate inverted over four stakes, is mighty handy to put the bread board on, and later to set out the meal on. There is a canoe suit-case, made by camp outfitters of light, strong wood, with gasket edges so it is water-tight, that comes in very handy here. In it are carried all the kitchen gadgets, and it is opened out, bottom side up, on the stakes, making a table 28 x 24 inches, which the cookee more than appreciates!

In any form of tarp camp, special provision must be made for insects. Even in Middle State waters the mosquitoes are bad, while the Adirondacks and Northern waters are humming with punks, black flies and a dozen other pests. We find that a simple square of fine muslin or cheese cloth, four feet on a side, is the way to beat them out. This is gathered into a pucker in the center,



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and a cord tied to it. A ring of pliable withe, 14 inches diameter, is next made and tacked on the canopy, so as to hold its folds well away from the face, and the whole works is suspended over one's sleeping rig by tying the cord to a limb, or a grommet in the tarp overhead. This is then dropped around one's face and shoulders, after getting into blanket or bag, and will keep the stingarees at bay. Mosquito netting will not do, for punkies go right through it. During the daytime in these waters you need a head net to protect your face, and ten-cent cotton gloves on your hands, with a bit of tape tying your wrists fast so the black flies cannot crawl up your sleeves and bite, as they love to do. These gloves are also mighty handy in working about the cook-fire, and in keeping your hands warm during the chill of night and in paddling on rough cold days. The more of your bodily heat you conserve, the more vitality you will have.

And, do not forget the "rest stick." It is a pole, six feet long, which you cut in the underbrush on portage and carry with you, with the canoe resting on its paddles, lashed to the forward thwarts and bow seat. The paddles rest on your shoulders, and need no steadying so your hands are free. The stern man has the tail of the canoe resting on his shoulder, with a pair of socks under it to keep it from cutting his collar bone, and both of you have your light packs on your backs, if going light, and doing your portages in one lap. If doing it in two, as will be necessary in long trips where lots of food must be packed, the canoe is taken over on the first lap and the duffle on the second. In any event, off you start along the trail, with the flies buzzing about under the canoe. It is not a very heavy load, but at the end of three hundred paces you will be glad to stop and rest, and here the rest stick comes into its own. For, sticking it in upright and catching its top on a canoe rib, you transfer the canoe load to it, and step out from under, merely steadying it on the rest stick, while the stern man sets down the tail of the canoe on the ground. In this way a two-mile carry can be made with little fatigue.

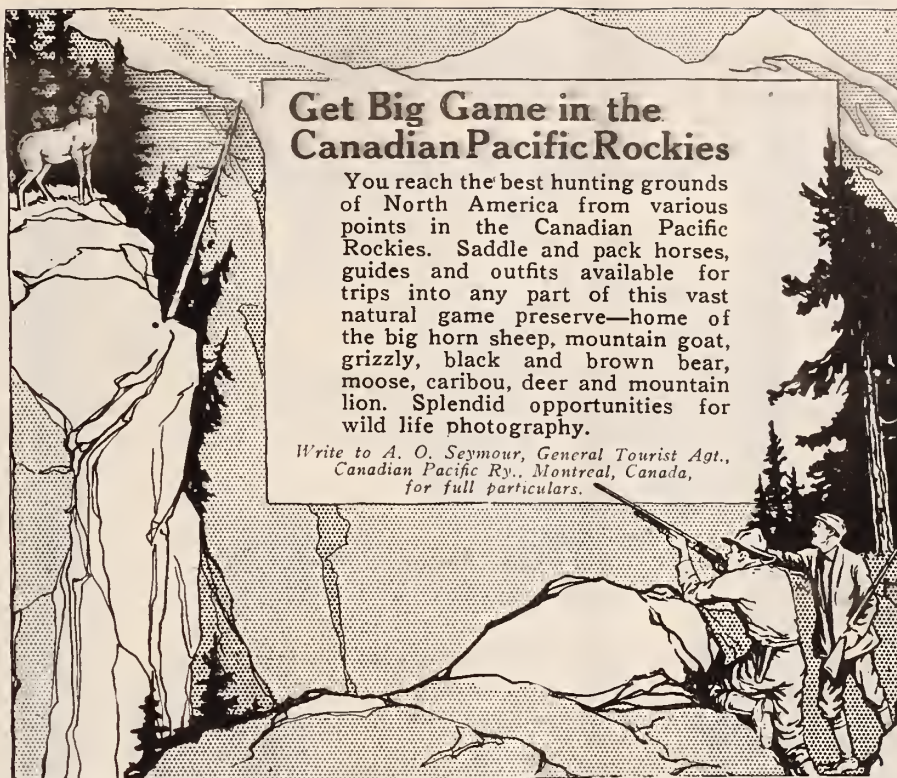
Hunches of this kind are what turn canoe crushing from a memory of toil to that of pleasure. This article will give you the broad outlines of successful going; the details you will fill in on your own trips as you go. It is one of the cheapest, most healthful and enjoyable of all outings, is the canoe trip. I make at least one every year, some times three or four, and advise you to go and do likewise.

AFTER TROUT IN NORTHERN ONTARIO

(CONTINUED FROM PAGE 407)

speeder and thirty-five trout spoke well for four hours' work. That evening we stayed in camp and talked things over. Jack was a romancer and proved very entertaining.

Sunday night was warmer and next morning we all went down the stream to where the Skunk joined the Nagagami. Although the distance is only about



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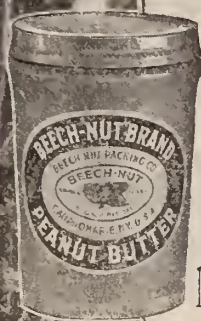
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three miles or maybe less, it was an all day trip. Jack told me there was a good trail on the east side of the stream. There may be. I did not find it. And what I said about him and his trail that day was enough. I wished he had been there a thousand times by actual count, so, if I could not have taken it out on him, the flies would have anyway.

THE fishing was very indifferent all the next day. It was very bright and hot until about five o'clock when we got back to camp. However, it was all in the game. Friend C on the west bank had an even worse time than I had, if that were possible. Dick only got as far as the first falls down stream, but again the gad was loaded. This time he stayed in bounds and his string was a credit to anyone, even a bait fisherman. After a good supper things looked brighter and we decided to go back to the Nagagami for the evening. I took the east bank and Friend C the west bank. Jack, I should explain, lived at the bridge over the Nagagami. He had my old ground of Saturday night, and before going to fish we called on him. He was just cooking supper and we waited until he had finished. He had a roaring fire in a small tin stove with a straight pipe to the roof of the shack. Just as he was about half through with his meal, the roof caught fire and we made a wild dash to the river to get water to throw on it. Friend C, however, seized a pail of water that was behind the stove and dashed the contents on the roof. The pail contained in addition to the water, Jack's washing and two pairs of socks. By the time we got back C had the fire under control. After the smoke had cleared away, Jack said, "Well, this is the first fire I have had to put out this summer."

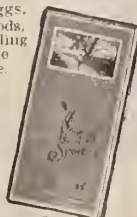
I had quite a time getting down the east bank of the Nagagami and to make matters worse, got nothing. I realized I had to get back in daylight, so did not stay long, coming back up to the bridge about eight o'clock. I had taken my rod down and put away my tackle and was sitting down about halfway up the bank, looking out over the river, when just above the bridge about twenty-five yards away I saw a beautiful fish jump full length out of the water. This was too much for me and I put the rod together, got about ten yards up the stream above him and started to get out enough line to reach the spot where he was. Presently I had enough line out and put the fly right over the place where he went up the last time and on the second cast he rose beautifully making a clean break. I drew and felt the hook set into him and he started for mid-stream. I gave him all the line he wanted. He made a big curve down stream and headed for the jam pile at the middle pier of the bridge. When he got ten feet from it I was giving him the butt of the rod so strong that I expected to see him turn up-stream. Not he, however, and it was stop him or lose my tackle and stop him I did, about five feet from the edge of the jam, so hard that his tail came out of the water and stayed out. After two or three minutes, in which I fully

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expected him to turn up-stream, I decided I had better reel him in and get the net under him. It was easier said than done. He was a good, strong fish and seemed bound to get under that jam pie. After quite a fight I succeeded in netting him and found I had foul-hooked the fish in the tail about half an inch from the tail fin which accounted for his strange behavior. I got three more around the jam pile and one a little further up-stream, all nice fish, the first one being just over three pounds. Friend C got five nice ones down at the falls. When we got back to camp, Dick was there with a horrible fish story. He had gone east to the White River half a mile and there he had been set upon by trout seven and eight pounds, so he said. From his story we judged he had pulled them out one after the other and seen them slide and flop back into the river again. After he had kicked them, laid down on them and done everything but land them, he lost all his hooks, broke his line and had to come home. He did bring home one beauty over five pounds, which was the first one he caught. We came to the conclusion that he must have caught the smallest one in the pool, so after a good deal of guying, we decided to try it out early next morning, as it was our last half day; the train was scheduled to leave the station at noon for the return trip.

Jack the Ranger stayed all night, so as to see the fun next morning and bright and early we were at it, getting to the White River about eight o'clock. Friend C and I each had a fish on the very first cast and after the usual struggle landed them. Then we went at it. We got nine before the sun got around over the tree tops and put a stop to our fun, for as soon as the sun hit these two pools the fish stopped for the day. After ten minutes trying we decided we had all we were going to get, besides it was time we were leaving for the station.

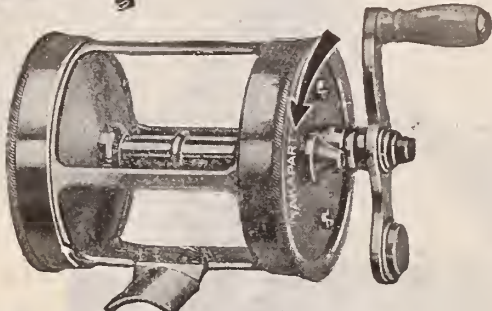
Breaking camp was a sorrowful job. Everyone wanted to stay but it could not be done. The fish were cleaned and packed in moss, and I, of course, had to try and shave off three or four days' growth with a dull razor. Between the flies and my tearing it out by the roots I had a fine time for half an hour. The train now appeared in the distance and the bustle of getting together bags, rods, baskets and fish happened all over again. Presently we were on our way home again, happy and satisfied. As we thundered over the bridge at the three streams we looked out and gave them a last goodbye.

Perfect weather fine sport, and good companions; what more could one want?

A WYOMING SHEEP HUNT

(CONTINUED FROM PAGE 420)

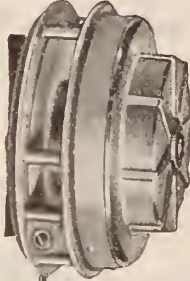
Ned was in front, I was only a few feet behind, and every twig we stepped on, sounded to us almost like the report of a rifle, so high was the tension and strain under which we were laboring, in our great anxiety to secure that animal.



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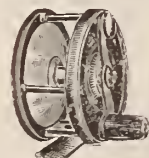
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Finally we came near to the spot where we knew the ram had laid down. We moved with the utmost caution. Suddenly Ned pulled at my sleeve, and in a whisper said: "There's the ram, looking at us, about 70 yards away, just beyond a shelf in the side of the mountain." I looked, and could only see the head, the rest of the body being hidden by the projecting shelf and intervening bushes.

Ned told me to hurry and shoot so I quickly aimed and fired. The sheep turned and ran at a terrific break-neck speed down the mountain side hitting trees, rocks and logs as it went. Ned shot at it, and missed; I shot again, with no visible result. Ned made ready to shoot a second time, but stumbled and fell. By this time the animal had fallen, about 125 yards distant down in the canyon. He told me to shoot once more at the white spot on the rump, but to be careful not to hit the horns. I did so and we then laboriously picked our way down, and there we found our magnificent ram, dead. My first shot had broken a fore shoulder and carried away a part of the lungs. The animal had been running on three legs and could not guide itself. My second shot had creased one of the horns, and my last had struck near the back bone, and gone through the body. So far as we could tell, Ned's shot had missed.

As nearly as we could judge that animal weighed, possibly 250 lbs. or more gross. We tied it on the horse and packed it about five miles into camp, and I was proud of my trophy. My son also secured a sheep on the same hunt, and later an elk and deer were added to our trophies before we turned homeward.

ANGLING FOR THE STRIPED BASS

(CONTINUED FROM PAGE 405)

IT is June, the month of roses and bass, the hour three A. M., when we see our properly equipped angler step from his home and direct his steps toward the beach. The morning stars are yet shining. He is a man of experience and care. His canvas fishing suit and well-fitting rubber boots reaching to the thighs, witness that fact. A leather rest for his rod butt is around his waist and a well oiled, carefully kept 2-0 or maybe 3-0 reel is on a perfectly balanced greenheart or split bamboo surf rod, agate mounted throughout. That he is a man of experience may be known by the way his eye ranges up and down the beach. The deep water slues do not hold his attention. His mind is on the adjacent flat where the water of the now rising tide comes tumbling over to meet the deep waters in the basin, for well he knows that if a bass is to be taken it is at the point where the troubled waters are washing out the crustacea of the sea.

That he is methodical may be known from the manner in which he prepares. First, six or eight feet of line is stripped from the reel and carefully tested as to strength, as the ends of lines chafe rapidly in surf fishing. Satisfied as to its condition the four-ply gut leader, with its brass swivel attached, is well

secured to the line. Next, the 7-0, O'Shaughnessy hook loop, snelled with four-ply selected gut, is bent on and the point of the hook is tested to determine its condition. It is apparently not to his liking and a small piece of very fine emery cloth is produced from somewhere in his kit and a few smart rubs puts the hook to a needle point. You will observe that tied to one eye of the swivel is a short piece of line with an open loop. If a novice you will ask why. That short piece of line, my friend, is really one of the important parts of the whole outfit. To the loop is fastened the four-ounce casting sinker, which is pyramid in shape and being so shaped holds to the sandy bottom better than any other type yet devised. And as to the importance of the short line you will note that it is tied to the eye of the swivel opposite to the one holding line and leader; this arrangement permits the leader to remain perfectly free of the sinker and the slightest touch on the bait can be felt before the sinker is disturbed.

All being in readiness the angler, before baiting his hook, steps down and makes a short cast, thoroughly wetting down his line, and no matter what bait he may have selected for his trial it is as carefully selected as the other details have been carried out. If blood worms two or three are on the hook, with ends hanging free. And now comes a most important part of the programme—the cast. The rod is never circled, but the tip is dropped down in front on a line with the eye, then brought back over the right shoulder, then with lightning-like movement the lead is shot out one hundred and fifty, possibly two hundred feet, depositing the baited hook just where the green water is tumbling into the basin.

YEARS of experience have taught our angler patience and well he knows that this morning may pass as well as many others before the coveted prize is secured, so lighting his pipe he seats himself on his fishing basket and prepares to await events. The tide is propitious, however, and we note how carefully the line is kept just taut, not enough to move the sinker, but just so nicely balanced that the least disturbance of the bait will be telegraphed to the index finger over which the line is drawn.

The first rays of the morning sun are dancing on the waves when our friend springs to his feet. He does not strike, but stands in an attitude of tense expectancy. A quick backward step is taken and the rod, bending like a drawn bow, tells us that the strike has been made. Away out yonder a beautiful creature vaults into the air and dropping back sends a thousand watery diamonds high into the air. The singing reel assures us that the steel barb is locked in the fish's mouth and it is now a battle of wits between man and quarry. But the man is ripe with experience. At the first rush the click has been set on his reel so that in the event of a misstep there will be no over-running of the line on the spool of the reel. At first the startled fish battles in the shallow water. Away he goes, two, perhaps three hun-

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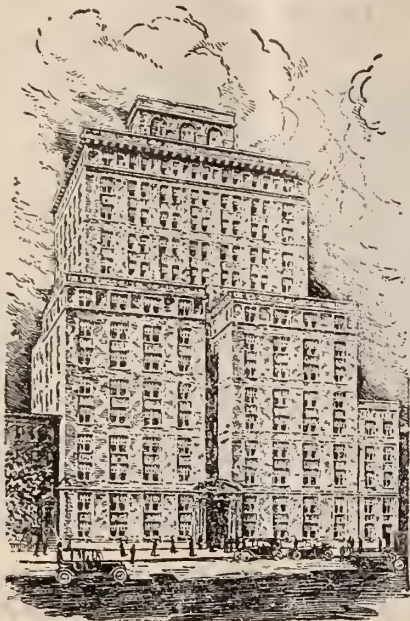


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dred feet, at the first rush, his beautiful contour showing plainly as he cuts through the waves. We note that his first rush is to the north; now he doubles and comes back with arrow-like swiftness and we hold our breath as the line slackens, but our friend attends to that; he steps back quickly and, reeling fast, soon brings the line taut. Again the tactics are gone through, not so far this time, however. Finding no relief from his bondage he now seeks deep water and sulks, but the gentle springing of the rod tells us that he is being prodded into action. We notice that he is swimming in circles, a sure sign of waning powers in a fish. The end is not yet, however, again and again he is worked toward the beach, and as often he goes to deep water. Again the sulking is brought into play only to be broken by the master at the rod, until the fast-tiring fish is at last worked into the trough of the sea near the beach. Now the whole beautiful, struggling creature is in full view, swimming parallel with the beach, his powerful tail beating the water and every fin set abrace against the action of the thread-like line from which he cannot get release.

The fire in his eye is plainly visible as each succeeding wave lifts him gradually toward the beach. Steady now, my man, your fateful moment is at hand. You have a prize fit for ransom within your grasp. A moment of carelessness now and all may be lost. But, he knows a thing or two of the game; the line will not be slackened. As the waves throw the fish upon the sand he steps slowly backward, keeping the line taut until the prize is won. And such a prize—the striped monarch of the Atlantic coast, about forty pounds of him—every inch is beauty and every ounce meant battle.

JAMES ALEXANDER HENSHALL

(CONTINUED FROM PAGE 403)

FLY-FISHING FOR BROOK TROUT.

I HAD the good will of a carpenter in my neighborhood who encouraged me in my mechanical efforts, and allowed me to use his tools; in return for his kindness I coached his boy, who was not very bright, in his studies. So taking advantage of this favorable state of affairs I set about making fishing rods. In the country about Baltimore, red cedar was very abundant, so procuring some well-seasoned, straight-grained logs, I made two light, springy rods of eight and ten feet in length, and weighing but a few ounces. They were made in two sections or pieces with a simple splice joint, which was taught to me by my English mentor James during our fly tying days. This was just as well, or better, because ferrules were a bit beyond me to make, and very difficult to obtain.

After the close of the Mexican war I made a visit to a distant relative in Pennsylvania, an army officer who had just returned from Mexico. I took the cedar rods with me, which the major admired very much, for he was a finished angler. He gave me a plaited horsehair line, about a hundred feet long, which I used for many years in fly-fishing, or



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until the modern enamelled line was introduced. Up to that time I had not used a reel, as it was not necessary in still-fishing for brackish water panfish, nor in fly-fishing for chubs, sunfish and gudgeons. The major gave me a light click reel and had reel-bands and guide-rings put on my cedar rods by a local watch-maker.

I was much pleased and greatly elated with my new outfit. The cedar rods were light and pliable, but very resilient and were just right for the small streams. I used flies of my own tying, for I had not forgotten the art. My companion and tutor had his own ideas about flies and of course, had his favorites, but after we had fished awhile he acknowledged that mine seemed to be about as alluring as his own. The trout were not large, running about two or three to a pound, and seemed to me to be rather small after my experience with brackish water white perch; but the major said they averaged very well with the usual run of brook trout in small streams.

Being entirely new to me, my introduction to trout fishing was a wonderful revelation, for it was my first experience in real angling. The quick response of the gamesome beauties to the flies as they alighted on the water was evidenced either by a swirl beneath the surface, or by a vicious rush and an electric snap at the feathery lures. It was altogether new to me, and something undreamed of in my fishing philosophy, and somewhat disconcerting at first. But as I became accustomed to their manœuvres I began to realize and enjoy the novelty and pleasure of the situation.

As we meandered down the stream, the major a little ahead, casting our flies here and there, I could have found use for half a dozen pairs of eyes, so intent was I in watching his every motion and at the same time giving proper attention to my own fishing. I was obsessed by the beauty and charm of the stream and its surroundings, so utterly different to all my past experience in still-fishing from bank or boat. The stream itself singing and sparkling in the bright sunshine, the dancing riffles and whirling eddies, the trills and cadencies of the wood-thrush in the coppice, the swaying and rustling of the tree tops, the glint of the butterfly wings, the swift sailing by of the dragon-fly—all gave an added zest to the pleasure of angling, which had heretofore been a sealed book to me.

And then, after the noon-day luncheon in the cool shade of beeches and maples, the major smoked his post-prandial pipe as I admired the contents of the creel. Surely there is no lovelier fish than the brook trout. The bizarre and gayly-tinted fishes of the coral reefs of Florida and Porto Rico, the butterflies of the sea; or the fantastic, grotesque and many-hued denizens of the tropical waters of Hawaii, the harlequins of the atolls; they must all, all lower their spiny crests and retire to the deep recesses of their coral caves when the soft-finned, velvety brook trout, tinted with the crimson and gold of sunset is seen darting arrowlike in the pure, crystal waters of the fountain.



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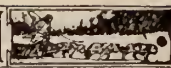
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THE GRASSHOPPER FLY

(CONTINUED FROM PAGE 413)

then a description if properly made can be easily understood by the average person.

But to return to our original theme and leaving for others the questionable pleasure of arguing about correct terms and phrases; the fall of grasshoppers generally commences about 8 A. M. (old style), however, if the preceding night has been a touch of frost in the early morning, the grasshoppers may not begin to appear floating on the surface of the water until some time later, possibly as late as 11 A. M.

ONCE they begin to appear floating on the surface of the water, they continue to do so during the greater part of the balance of the day, and during all this time the fish feed ravenously on them. The average duration of a fall of grasshoppers on a favorable day may be put down at about 6½ or 7 hours. Now this is a much longer time than the length of time taken by a rise of some particular fly. I have observed some very heavy rises of the March Brown or Brown Drake. These usually commenced about 9 A. M. and by 1:30 P. M. there was not a single specimen visible in the air or floating down stream on the surface of the water. This rise of the Brown Drake must not be taken as an average rise, in fact it was an exceptional rise, and it only lasted about four hours. The evening rise of sedges and spinners is of much shorter duration. Of course there are days on which some sort of a hatch of flies is taking place on and off throughout the entire day, but these sort of days are not nearly as numerous as the days on which a fall of grasshoppers lasts 6 or 7 hours.

The majority of fishermen that I have met invariably use the natural insect for bait, but although numbers of trout are caught in this manner, there are certain disadvantages in connection with this style of fishing that will be worth while enumerating as contrasted with the, in my estimation, better and more sportsmanlike method of catching trout with the grasshopper fly.

TO begin with there is first of all the necessity of catching the grasshoppers, then there is the messy job of impaling them on the hook, and when they are finally fixed, the casting of the baited hook on the water.

A grasshopper on a hook will not float and consequently does not present a very natural appearance. In localities where many fishermen use the natural bait, the fish become very wary and will only take the baited hook in the swift water or in water where the comparatively still surface is ruffled by a strong wind. Therefore, unless a good wind is blowing, only the upper portions of the pools where the surface is broken up by the swift rush of the incoming water is worth fishing with the baited hook.

The deep, slow flowing portions, where, it might be incidentally remarked, most of the bigger fish are to be found, has to be left unfished, or fished only with



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any hope of success when there is a heavy wind.

Then again, if the stream should happen to be a fairly large one, it is frequently impossible to cast the baited hook the distance necessary to reach a feeding fish without at the same time running the risk of having the grasshopper fall off the hook while making the throw. Distances which are beyond the reach of the bait fisherman can be covered by any fairly proficient fly fisherman.

There are still many wild streams but the time is not very far distant when, owing to the ever-increasing use of the automobile there will be very few streams within the reach of any but those who can take unlimited time for their fishing trips where the trout will not be fairly well educated as to the danger of feeding on grasshoppers that do not look perfectly natural.

NOTES ON SHORE BIRD SHOOTING

(CONTINUED FROM PAGE 411)

down to leeward where they circle and then draw in over the decoys. It is therefore not advisable to shoot at a flock passing over your head, as it will turn and come in over the head of the stool.

It sometimes occurs when snipe are making their flight late in the afternoon that they are not inclined to stool well. In cases like this a few scattering stool set way to windward stuck up in deep water will draw down the birds in passing and by judicious calling they can be worked in for a shot. Each variety must be distinguished and recognized as soon as seen, for they often fly in perfect silence and will not notice the decoys unless called. As they come in they hover and drop their legs, which is the moment the sportsman should take to pick out his birds and shoot. At the report the frightened flock will dart about in terror, making the second shot difficult. Soon they so far regain their courage that those which escaped again wheel and return, giving a second and often a third shot to the gunner.

Using a 12-gauge gun, stiff charges of powder and either 8 or 10 shot will give the best results. The gunner should dress in light canvas clothing, with rubber boots, and as the season is apt to be conducive to black flies and mosquitoes, arrangements should be made to provide plenty of fly dope to combat these pests.

The study of shore birds will well repay the sportsman who follows this game, as there are some 185 different species of these birds, each with more or less his own peculiar call. It can be readily seen the sportsman will not graduate as an expert in a day. The call note of the Turnstone, or Brant Bird, is ever so hard to imitate. The round, full note of Black-breasted Plover or Beetle-head is the sportsman's joy. There is the soft, plaintive note of the Piping Plover, and the shrill tones of the Ringneck, and also the peculiar inspiring triple note of the winter Yellow-Leg. But in order to study carefully the habits, food and peculiarities of the shore birds, we must be among them or with them. Not alone

does the shore bird gunner enjoy the sport of a morning or two with the birds, but he knows that no finer birds find their way to his table than these same beach snipe; in fact we do not believe finer birds for the table are to be found than the Golden and Upland Plover.

On the southern shores of Long Island are many famous sniping grounds, the writer some 30 years ago in early September, after a three-days' storm, sat in a blind on what was then known as Fiddleton Flats, broad mud flats, on the Fire Island meadows, and enjoyed a day's shooting during a great flight of bay birds. Flock after flock came along, till night overtook us and we wearily pulled our boat across the bay with a backload of birds. The next day the birds had gone. A flight of birds is liable to occur anywhere up and down the coast during the migrating season, if wind and other conditions are favorable.

Who can tell the habits of our wild fowl and aquatic birds so well as the men who, day in and day out, in cold and heat and in all kinds of weather, follow shooting as guides for sportsmen? Unfortunately for the public these men cannot spare the time to jot down their experiences; indeed, but few of them can write and so much that, if recorded, would be of real value to the shooting world is lost.

Let me advise those who have never tried the sport, to get in touch with some one of these professional shore bird guides. The day will end with much of profit to the sportsman. The early morning on the marsh or beach, the building of the blind, the putting out of the stool, and the uncanny skill of the guide, who, with perfect eyesight, recognizes each variety at prodigious distances and with perfect variation, whistles them in over the stools, each with his own peculiar note. Such a day is a revelation, and when the bag limit is secured and you go wearily homeward, you can count it a day of the calendar to be scored in Red.

CLEARING UP STREAM POLLUTION

(CONTINUED FROM PAGE 399)

ments by telegram and letter. He first wished to know how we expected to accomplish anything with such a stupendous problem by a summer's work, and was vastly relieved when he learned that we had no idea of actually abating pollution during that summer. He had hesitated to accept appointment because of the possibility that I might look for impossible results. When I told him that

I wanted him to become a member of our board of strategy, to study the situation and to map out the course of future work, he took the problem up with enthusiasm and assisted us in formulating plans that I am sure will yield most important results within the next few years.

"Professor Ward made a preliminary investigation of the extent of pollution in the principal rivers of the State, and of the effect of that pollution upon the aquatic life of the streams. As a result of this study he was able to show us that

our law can be really effective, even in the more difficult cases, provided we have proper scientific assistance in working up the evidence. This in itself was a most important result to accomplish.

"At the end of this investigation I called a conference which was attended by representatives of the State Department of Health, the United States Food Administration, biologists and fish culturists, and representatives of industries and public organizations from all parts of the State. The study that we had already made of steps that must be taken to abate pollution, with due regard for the State's highly organized industrial fabric, formed the basis of discussion at the conference, and brought about the complete agreement of those present.

"The program agreed upon by the conference required few changes in the present law. Appropriations were found to be necessary, however, for the employment of an expert biologist and chemist, for educational work among industries affected, and for general administration of laws already on the books. The program further provided for the establishment in the Conservation Commission of an effective clearing house regarding all pollution matters, and for developing co-operation among the industries concerned, so that reclamation and disposal processes worked out by industrial chemists and engineers may become generally known.

"It was agreed that the efforts of the Conservation Commission should be directed toward helping this reclamation movement as much as possible, and endeavoring to have it put upon a permanent industrial basis. In this way a double benefit to the public at large will result—the conservation of a valuable food product in the fish that are now destroyed, and the saving of millions of dollars in by-products that need not be wasted.

"It was the belief of the industries represented at the conference that a spirit of co-operation will be manifested by manufacturers, and that in the majority of cases it will not be necessary to apply the rigorous procedure provided for the enforcement of the law.

"Following the conference, a careful plotting of all of the potential sources of pollution in the State was undertaken. A card index was prepared, with a card giving the known details of each case, and each case was then indicated with a pin of appropriate color on a large map of the State. On the map the boundaries of each river system are drawn with a heavy line, and the colors of the pins show the types of pollution. There are about 1,600 cases in all. We thus have an actual visual representation of the conditions on every watershed. The cards give condensed information, and a set of report sheets turned in by game protectors give still further data. While the information supplied by game protectors is of course not thoroughly accurate, because they are not scientific men, it is nevertheless sufficiently so for the purpose of a rough survey, and furnishes the basis for the work of a specialist. This means that we now know in detail what our problems are and where they are located.

AMERICAN GAME BIRD SHOOTING

By George Bird Grinnell

This large and profusely illustrated volume covers the whole field of upland shooting in America. It deals with the birds followed by the upland shooter with dog and gun, and gives practically everything that is known about the woodcock, the snipe, all the North American quail, grouse and wild turkeys. This is its scheme:

Part I—Life histories of upland game birds; many portraits.

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There are life-like colored plates of the ruffed grouse and quail, and 48 other full-page plates, with many line cuts in the text.

The book is really the last word on upland shooting, and this is what some of the authorities think of it:

"It is, I think, a model of what such a book should be—but so seldom is. It is, indeed, much more than a treatise on field sports, for it furnishes such full and excellent life histories of the birds of which it treats that it should find a place in every library devoted to pure ornithology."—William Brewster, Cambridge, Mass.

"A very complete monograph for sportsmen and naturalists . . . with anecdotes, of his own and others . . . The book will be enjoyed not only by sportsmen, but by the general reader."—Sun, New York.

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"We now have in press a report by Professor Ward covering the evils of pollution, the necessity for eliminating it, and the general policy adopted by the commission. This report is to be sent very shortly to every individual, company, institution and municipality represented in our card index and on the map. With the report they will receive a letter stating that they have been reported to the commission as causing pollution, and requesting their co-operation in eliminating it. This letter and the report will serve two purposes: First, it will put them all upon general notice that there is a pollution law which they may be violating; second, it will give them a clear idea of the commission's policy.

"Our list is a list of potential polluters, and not all of them are actually causing damage. The first replies will develop many of those cases that are harmless, and when we have verified that fact, they will be removed from our list and map.

"The man in charge of the work will from this time on collect all of the information possible regarding every instance of pollution and properly assimilate it into our records. This will mean much field work, largely of a biological nature, and constant study of methods of disposal. This information will furnish the basis for continual action.

"Study of the map already indicates that it will be advisable to call a conference of selected industries for discussion of the problems peculiar to each, with the idea that co-operation can be developed for clearing up the pollution caused by each industry in the shortest possible time. Special publications will also be issued, devoted to successful methods of treating particular kinds of waste, for instance that from creameries and milk condenseries. Conferences and special publications, or other work, will not be undertaken unless it is first clearly understood what results are to be accomplished and it is apparent that something definite will follow.

"The map also indicates that it will be possible to take certain streams and endeavor to clear each stream as a whole. Unfortunately this cannot be done with every stream, as the problems presented by some industries are too difficult for immediate solution.

"Our work so far has been directed toward laying a foundation. We are just beginning to approach the stage where we expect to show concrete results. Already some definite results have been accomplished. We have already made recommendations for modifications in some plants, and the recommendations have been adopted. I am firmly convinced that it is necessary only to go ahead step by step, with absolute firmness where necessary, and with co-operation whenever it is reciprocated, to return our streams ultimately to a condition at least approximating their natural purity. I am the more assured of this because some of the biggest industries in the State have promised their support and have given tangible evidence of good faith by already setting their chemists at work on their problems."

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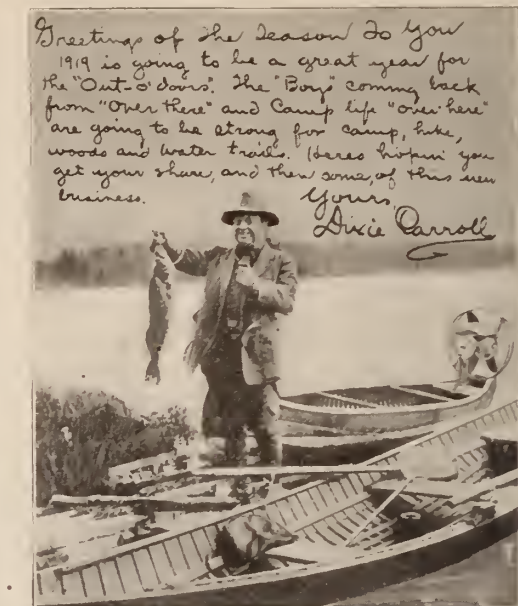
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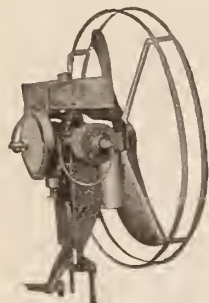
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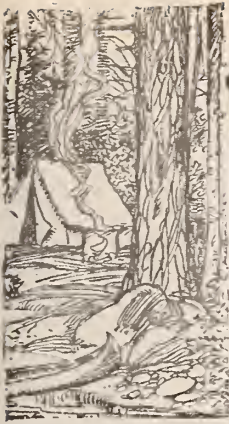
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No. 9

HOW TO HOLD THE RIFLE ON GAME

A FEW VERY IMPORTANT RULES WHICH THE HUNTER SHOULD OBSERVE WHEN HE GOES INTO THE WOODS THIS FALL AND MEETS THE COVETED QUARRY

By F. E. BRIMMER

THERE are a few simple mechanical rules of correct aiming that will determine whether you bring home that buck deer or return empty handed. Of course the same principles of accuracy in sighting the rifle will hold as true if you are in quest of the bear, caribou, moose, elk, or sheep.

The Indian shooter had the better of the modern shooter for many reasons. First of all the Redskin never knew such a term as trajectory and never needed to get acquainted with it, because at every shot he could see his arrow speed through space and knew when he was aiming too high or not holding high enough to hit. His arrow's flight told him that fact every time. But the modern hunter can't see his bullet, unfortunately for him and fortunately for the game, so that we have to deal with that tricky and abstract term known confidentially among gun cranks and experts as trajectory. If a man could see every foot of the patch over which his bullet travels from gun muzzle to target it would be a pretty simple thing for him to hit his deer, for his first shot would automatically give him the range. I have corresponded with the largest ammunition manufactory in this country in regard to using smoke bullets on game, but the head engineer, the superintendent, the manager and the company's experts all shake their heads and say no.

You remember the aviators used smoke bullets when shooting down enemy planes and found them to be mighty deadly. The trail of smoke left behind the bullets told the gunner whether he was shooting ahead or behind the speeding target so that he just naturally corrected his error until he got his plane. Now, why should not sportsmen have the advantage of this same ammunition since

the war is over? The answer is, and I believe it is a good one, that this sort of ammunition used on game would give the hunter too big an advantage over his quarry. Smoke bullets would not give the game a fifty-fifty chance for his life and so probably would be outlawed as soon as put on the market. Also the smoke bullet does not begin to show its smoke under several hundred yards and so the military type would have to be modified in some way to meet

many ways to the modern sporting arm. Just the same, he wasn't bothered about trajectory as we are today, yet he used the same principle that every hunter does now. Gravity pulled the Redskin's arrow toward the ground just as it does the metal patch bullet and there is no way of stopping it that has been discovered. Some manufacturers claim to turn out rifles that shoot absolutely point-blank for *three hundred yards*, but I doubt if this could be possible. The trajectory may be rather low because of the high velocity and the light weight of the bullet, but just the same the force of gravity is at work on that bullet and must pull it down several inches in three hundred yards.



Wild deer photographed in Northern Maine

the needs of the American hunter. No doubt it could be done, but I do not believe it will ever become used extensively in big game hunting. However, the use of the smoke bullet may develop for target work at the range, and a shotgun shell may be invented which shows the path of the shot for the trap shooter. A shot shell that would show its smoke path would be a fine thing for the hunter—but woe to the game.

Anyhow, the Indian had the advantage and that we can't deny. Of course this was all offset by the fact that his arm was crude and cumbersome, lacked speed, killing power, and was far inferior in

PHOTOGRAPH No. 1, illustrates the proper alignment for sights which gets game for every hunter. Notice that neither too much nor too little of the front bead shows; that it is just about level with the top of the horizontal line of the rear sight and that the rifle is held *plumb*. By plumb I mean that the gun is gripped perfectly straight up and down with respect to its upper and lower parts, say the lower corner of the butt and the upper rim of the sights. The dotted lines on this photograph show that the rifle is held plumb, for the tops of the sights are held in a horizontal line while the up-and-down of the gun is perfectly perpendicular, or at least practically so and accurate enough for correct field shooting. The shooter who holds his gun like this will be pretty sure to get his game if he does not take too coarse or too fine a view of the front bead in the notch of the rear sight.

Holding the gun plumb is a cardinal principle that he who shoots and desires results that come in the wake of ac-



No. 1. Showing open sights properly aimed



No. 2. Rifle tipped to right and a miss shot into circle at K

curate holding must practice by force of habit. No rule that is taught the young shooter is more important than that he should hold his rifle perfectly straight up and down for to roll it over on either side will cause a miss that the best gun made cannot be held to account for. Many shooters blame a good gun for they say that they held properly, just as they had done many times before, still the shot was inaccurate. Ten to one they were not holding the barrel true and so trajectory (that principle that the Indian didn't have to think about because he could see it), threw the bullet to one side or the other when the sights deceived the shooter into believing that he was aiming perfectly right.

I remember once that a hunter was offered an easy shot at a moose when the distance was not more than fifty yards and missed because he rolled his rifle over to one side. He had been hiding behind a log and the moose walked right on top of him so that he had to be careful not to make any noise or cause the moose to see him, so he worked himself to the end of the log and quietly thrust the muzzle of his rifle around the end. He could not quite reach the required distance to hold the gun plumb and anyway he aimed his sights properly, so he said, even if the gun was tipped way over to one side, what difference did it make? It made enough so that he missed an easy shot and didn't get his coveted moose. Photograph No. 2, illustrates why the moose was missed, because the rifle was tipped to the right.

Remember that when the gun is held upright and plumb the bullet will travel high over the path that your eye sees and when it reaches its target will be on a somewhat downward course. Then, if the barrel is tipped over, the bullet does not go high alone, but rather to one side and high. Hence the bullet in photograph No. 2, is a clean miss and strikes somewhere in the circle at K. Nothing can be more anger provoking than to miss a deer at close range when the sights look to be properly

aligned but such will be the case if the gun is not held properly in an up-and-down position, as it was sighted to be held at the factory. The rifle was made to be held plumb and will not shoot true when rolled over to one side. Suppose the sights had been at right angles to their proper position when the shot was made. In that case the bullet would be thrown off to the right, the distance from the line of vision increasing as the distance increased. So, no matter how much the firearm is tipped over, be it just a trifle, the bullet is thereby caused to go a little to the right or the left of the line over which your eye looks to the target.

If the bullet went straight from muzzle to deer, then the aim shown in photograph No. 2, would be perfectly correct. If any company can build a gun that has no trajectory then the aim at No. 2, will be correct for that gun, and the shooter can lie down on his side to shoot if he wants to. But with the guns that I am acquainted with you have got to hold the barrel plumb. When someone gets a bullet that gravity can't pull toward the center of the earth in its unsupported flight, then the aim illustrated will be just as effective as that in the first photograph. When the barrel rolls or tips to the right the bullet will fall to the right of the target and when it is tipped to the left the bullet is going to fly to the left. That's a mechanical fact

that every shooter ought to take into the mountains and bogs with him.

TOO much is often expected of the rifle in field shooting and even when results are mechanically impossible for any gun to get, the shooter blames his weapon and his ammunition where the fault is all his own. At the rifle range the mechanics of shooting are better looked after than in the woods, for one reason, because one has plenty of time when target shooting, unless it be the speed or rapid fire drill. More than this, the shooter has opportunity to get into a natural position when target shooting. He can select his footing, his rest, or his position, while in the field the shot often has to be made under conditions that require quick aim, unnatural position, and general unfavorable conditions. At the rifle range the proper position of the body and gun can be gained by a shooter of any experience at all, whether he is shooting prone or standing makes no difference.

Many shooters make the mistake shown in photograph No. 2, when they rest the gun against a tree, over a fence, or around a rock. Did you ever notice that the very best and most dependable field shots never rest a gun? They prefer trusting to off-hand shooting and generally get results. The body just naturally holds itself and gun erect when shooting from the shoulder without rest, while a rest in the woods is never plumb and so the gun is tipped over for a miss. In the long run the shooter who does offhand work will go home with more results than the shooter who all the time wants to seek a rest when any shot is presented to him. Getting down on one knee might not be included in the rest positions that were bad because of the fact that only the body is concerned. The trouble arises when a tree, log, or other external and solid substance forms the basis of the support for the firearm.

A hunter who has stalked a deer or moose for many hours through thick timber, bogs or other rough country without



No. 3. Showing relative size of sights and game



No. 4. The sights are as big as the deer at two hundred yards

rest maybe, is not in the physical frame of mind to make the most natural position easy and his nerves are just enough overstrained so that the rifle may be tipping when it looks perfectly upright. The result is a miss and a hard trigger pull, poorly sighted rifle, or defective ammunition will be held at fault for the error. In many cases buck fever is the excuse given for a poor shot which the best marksman in the country would have made if he had tipped his gun over to one side. Make sure that you know when a shot is mechanically impossible and then don't shoot.

In a great many cases it is necessary to make a long shot through trees at game. Now, suppose that there are large overhanging limbs on these trees, but by hugging the ground in a prone position the shooter may be able to get a clear view of the game and so believes a shot possible. He shoots and misses because his bullet had to travel higher than his line of vision and so sped into the overhanging limbs before it got half way to the game. I know a certain path deep in the heart of the Adirondack mountains where there is a boulder projecting out several feet over the trail. Just beyond is a beautiful beaver meadow. As you walk along the trail you seem to look through a door out across that pretty scene. For many years it has been the practice of old guides to put up a target way across that meadow and then to get a sportsman shooting at it from several yards back along the trail, the target showing just beneath the rock. Of course the bullet went into the overhanging rock every time and no shooter could hit the target. A few misses in this position, when the target was an easy one, taught the shooters a good lesson in remembering the mechanical possibilities and limitations of their rifles. Many a missed shot in the woods has been the result of a leaning tree in the way, or maybe an elevated log, heavy limb, or projecting rock that stopped the bullet before it got started well on its way toward the animal it was meant for.



No. 5. Showing peep sight correctly aligned

THERE is another consideration about shooting over varying distances that make the correct aiming of the rifle very difficult. Suppose the deer in photographs No. 1 and 2 was about fifty yards away. Note the size of the sight compared to the deer. The aiming here is very simple because the target appears so much larger to the eye than it would be if the deer was one hundred yards away. In photograph No. 3, is illustrated the approximate size of the sights and deer as presented to the eye. Of course under natural conditions, as the distance was increased, the deer would become smaller while the sights would always remain the same to the eye. But I am supposing that the deer remained the same size while the sights increased in size as the distance was made longer. The problem of accurate aiming will be the same for both cases. See how cumbersome the sights show up at one hundred yards compared with those at fifty yards. Obviously the work of aiming at the deer in photograph No. 3, is a far more delicate job than at No. 1 or No. 2, for now your sights, relatively, are so much larger while the deer appears smaller.

Suppose the distance from target to rifle is increased to two hundred yards, the result is illustrated approximately in photograph No. 4, where the sights are about as big as the deer. Certainly

the problem of aiming is mighty hard here for the sights nearly cover up the game. Then, as the distance increases, the sights would increase, or else the deer decrease until you have a condition where the deer would not show up any larger than the front bead itself, say at four hundred yards. To consider these facts will not make you a poorer shot, but ought to increase your accuracy by the full realization that distance is pretty tricky when it comes to shooting. Many times, too long shots are tried when it would have been better not to frighten the game and take the chances of getting within range. A gun that shoots a mile is no deadlier than the range of accuracy of the shooter's eye, arm, and nerve. Do you know where your limit is? There is some distance over which you have found it unsafe to expect accurate work because your sights were too big at that range relative to the size of the game and so no shot ought to be attempted unless you are sure that no other will be presented and want to take one chance in a hundred.

Some men make a specialty of pulling off long shots with open sights, but I notice that they miss a score of shots before they make a hit, and they only talk about the hit. Of course that is all right if it suits the shooter, but for accurate and dependable work with the rifle in the field, when it means to lose or win game at the one opportunity presented, then the range of the individual shooter's ability to hit should be reckoned with. A man who is a quick judge of his range of accuracy, even if it may fall short of another shooter's ability, will in the long run get his share of the game. Ability to accurately estimate distance is very essential, for upon it will depend the elevation of the sights for the shot.



No. 6. Telescope sights. Dotted lines show incorrect aim

ONE of the reasons why peep sights are popular with big game hunters is the fact that as the distance increases the sight does not show up so much larger accordingly. Even at long range
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THE ROLLING FIELDS OF SOMERSET

MEMORIES OF UPLAND PLOVER SHOOTING IN NEW JERSEY WHERE, UNTIL AS LATE AS TWENTY YEARS AGO, GOOD BAGS WERE MADE OF THIS FAST DISAPPEARING GAME BIRD

BY WIDGEON

FOR the past fifty years the migratory game birds of this country have decreased at an alarming rate, until many varieties, plentiful then, are now nearly exterminated. This has been the sad fate of that delectable bird, the upland plover. In my youthful days they were very numerous. Many, many times in showery weather in August in early morning, or late afternoon, have I heard that liquid bubbling ventriloquous whistle descending from the sky and gazing upward, discovered the bird high in the heavens, outlined against some dark rain cloud, looking no larger than a swallow, and then again would come rippling down that mellow call. I have always found them extremely shy and wary and very difficult to approach. Many hours have I spent stalking them on the clover fields, or crawling low along the potato rows, or stealing as silently as possible through the growing corn. This is the one game bird, if any, that it is permissible to shoot on the ground, for it is very seldom, be as clever as you may, that you get closer than forty yards. In the years of plenty, while there might be twenty of them in a large field you would seldom see two together and it was practically impossible to make a large bag even under the most favorable conditions. So when I had been successful, I would come whistling home, as country boys always do under like circumstances, knowing that I had something pleasing for Mother, who was famous as a game cook; for be it known that the upland plover is a great dainty when properly prepared and second only to that king of all table birds, the woodcock.

Few indeed of the present generation of sportsman know of the joys of upland plover shooting, for to most of them it is but a tradition; but speak of it to an "old timer," and his dim eyes will light with enthusiasm, for this sport, in the real home and breeding ground of the bird in the northern counties of New Jersey, has a luxurious ease and charm never to be forgotten by the favored one who has once enjoyed it. For many years it was my good fortune to spend the opening day (the first of August) on the rolling grass fields of Somerset County. Here, even as late as twenty years ago, in certain spots known to the favored few, good bags could be made. The method employed was unique, the shooting being all done from a horse-drawn wagon. The best results were obtained from a canopy topped surrey drawn by a span of horses; this, with a careful driver and three congenial shooters, made the ideal combination. Full-choked guns and strong loads were necessary, for almost all the shooting was at long range. Given this desired combination, with a clear August day, and a reasonable amount of shooting, the

riding over the expanse of rolling clover fields, the beautiful farm homes, the shaded nooks and roads beside the murmuring brooks and streams, the luncheon hour in some secluded spot, the drive home in the glowing sunset, made an impression that would never fade from a sportsman's mind, if he had anything of an artistic temperament.

AT the foot of my street in my native town, dwelt a popular member of the medical profession, Dr. Garret H— He had moved there with his wife and family, then four girls and a boy, from northern New Jersey some



The upland plover.

five years before, and a warm friendship had immediately sprung up between us for we had many tastes in common, we were both professional men, and both loved the rod and gun, besides we were both members of the same fraternal society. Many very pleasant hours have we spent together at the traps, for we were both fairly good shots, and usually made the "anchor" in the club tournaments that were the vogue in those days. In summer, such hours as we could steal from our business in early morning or late afternoon were spent in weak fishing on the beautiful Raritan Bay, and in autumn, we could occasionally get a day with the quail and rabbits. The doctor had many times extolled the charms of upland plover shooting, and one morning in early July, as we were fishing, he said, "Say, Neil! let's try the plover on the opening day." I replied, "Doc, that's a capital idea, and I

am with you." The first of August came on Monday and we planned to drive out on Sunday morning to our objective point. We were away bright and early over the stone road to Old Bridge, then on through New Brunswick, for about four miles to the little hamlet of Franklin Park, which we reached in time for church. Some four miles from this place the Doctor was born and grew to manhood. When he graduated from Medical College, he here hung out his "shingle" and began the practice of medicine and in a few years married the "Belle of the Country side," the beautiful daughter of one of the prosperous neighboring farmers. Here he also became very popular, as was evidenced by the "levee" he held after church service, at which nearly every member of the large congregation shook his hand. I was introduced to many of his friends, and in particular to the gentleman who was to be our host, Mr. Irving H— the doctor's cousin, and soon we accompanied the young man to his home. He was the only child of a wealthy gentleman farmer, and lived in state with his widowed mother in their luxurious mansion near by. He was fresh from college, and had been much "petted" by his doting mother, but he was a very agreeable and interesting companion, a thorough sportsman, and a good shot, and has made good and served his county with distinction in the State Legislature. After a short drive we entered the H— grounds by a broad avenue, over which grand shade trees cast their cooling shadows, and presently came to the house surrounded by artistic lawns and gardens. Here, at luncheon, "Irvey" (as he was affectionately termed by his many friends) introduced me to his mother, and we lunched in state, served by the dignified colored butler. The afternoon was spent in an interesting tour and inspection of the large farm, the stock, and kennel of shooting dogs, and we saw and heard many plover. We also inspected and admired Irvey's interesting collection of curios and mounted birds. After dinner, as we sat in the evening shadows on the broad veranda, while Irvey and the doctor enjoyed their after dinner cigars, the doctor asked about the proposed shooting route on the morrow.

"Why, Doc," Irvey replied, "I think we will start in right north of here, at the corner, where you saw those large clover fields, then work across the county line into Somerset, then in a broad semi-circle, cross the canal and river, so around by Belle Mead to Wyckoff's farm, where we will have lunch, shoot there in the afternoon and back here to an early supper, which will let you reach home before midnight."

Presently we walked out to the carriage house, where Irvey had his jet

black coachman put the canopy top surrey in perfect order and prepare all things for an early start next morning, then to bed to dream of whistling plover. There was a thunder storm north of us in the night so when we started out next morning according to program, just as day was breaking, the air was delightfully cool and refreshing. With Doctor and me on the back seat of the surrey and Irvey and the driver in front, we drove to the main road, then to the corner. Here we came to the clover fields and just at sunrise, as the driver was taking down the bars, the plaintive whistle of a plover came to our ears. "Hear them, Doc, hear them?" cried Irvey. And immediately he replied with a perfect imitation. Then we drove out over the field, eagerly looking for the birds we had heard calling.

"There they are Doc, see them? Two of them. Now, Mr. A— this is your shot, for we are to take turns, you know, and you are the guest of honor. See their heads sticking above the clover, about two hundred yards to the right.

Now Dick, drive along slowly to the right of them, as if you were going to pass them, not too close. Keep off a little, that's about right. Now, Mr. A — be ready, and when the wagon stops, shoot quickly at one on the ground."

Slowly we drove as if to pass the birds at about forty yards, and they looked very alert and suspicious. When we were directly opposite, the driver brought the horses to a stop and instantly the little Baker was at my shoulder and I killed the first bird just as it opened its wings to fly. Up sprang the other with shrill whistles of alarm, to be brought down with a quick "snap" shot from my second barrel, and I sat back with a sigh of satisfaction, while my companions slapped me on the back with many congratulations, at our auspicious start, for most shooters believe if you kill your first bird in the morning, it brings good luck for the day.

We found no more birds in this field, and drove to the next one, presently Doc excitedly said: "Irvey, see that big one off there to the left, see him skulking through the clover?" "Yes, I see him, but I fear he is an educated one, but we will try him. Dick, edge in on him a little." But the bird was wild and soon took wing and flew over the field, uttering the while his plaintive call. Presently two more rose from the field and

began flying around while we stopped to watch them; finally two dropped in the adjoining field, while one alighted on top of a post in the fence between. Here it stood for all the world like a young turkey, craning its neck from side to side.

"Now, Doc, this is your shot, and it will be a long one, for he won't let us get very close and I am afraid it will 'strain' your old Parker." "Don't you worry about the Parker," replied the doctor, "you put me within fifty yards of him, and he is my meat."

Carefully, Dick drove past the bird at about forty-five yards, and when he stopped the horses Doc blazed away. Up jumped the plover, and then Doc gave him his full-choked barrel. On went the bird, while Doc gazed longingly after it. Suddenly it began to falter, and then, closing its wings dropped like a stone.

"Why, Doc," said Irvey, "the old gun is some good after all." "It's your shot next," said Doc, "and we will see what you will do with your old gas pipe."

The birds in the next field were wild

arated and walking about one hundred yards apart, started across it. Soon from in front of Doc, who was in the middle, away went three doves with flapping wings. *Bang!* went the Parker, down went a dove; bang! went the other barrel, down went another. The remaining bird crossed Irvey, going very swiftly and at long range. *Bang! Bang!*—On went the dove. Doc laughed sarcastically and asked, "What's the matter with your old 'gas pipe' now?"—"Why you old sinner, that dove was sixty yards away."—"Not a foot over thirty-five and you know it," said Doc, "your old gun is no good, and you never could shoot much any way. You come down and take some lessons at the Old Bay Side Club, and we will try and teach you to shoot as well as we can."

With these two warm friends good naturedly "chaffing" each other, we passed on to the road and the surrey again. Then on to other fields, picking up a plover or dove here and there, and so in good time to the canal, and crossed

it at the locks. A few yards farther on we passed over the beautiful little "Millstone" River and drove for quite some distance beside its shady banks. Here the Doctor grew reminiscent and told of his bass fishing on thisylvan stream.

"There in that shady pool yonder at the bend, I took a four pounder," he said, "and you see that old ragged

tree top, there beside that big rock; well, in that old tree top I lost the biggest bass I have ever hooked. There was a big thunder storm coming, and I guess I didn't handle him just right."—"I can easily believe that," said Irvey, "unless you fish *much* better than you shoot."

As the day grew on the plover grew wilder and more difficult of approach and the shots at a greater distance, so we made frequent misses but the bag steadily grew. After a time we passed the great "Belle Meade" stock farm and saw numbers of plover in the fields, but they allowed no shooting on account of the stock. It was a pleasure to see how popular Irvey and the Doctor were. The Doctor had practised all over this country. Wide swung the gates when they asked permission to shoot on the farms, and many of the farmers' wives came to the surrey side to shake the Doctor's hand and invite us to stop to dinner.

Just at the noon hour we arrived at
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Sportsmen used to drive to the shooting grounds behind a team of farm horses

and did not give us a shot, so we drove on about half a mile farther to another stretch of rolling clover fields and pastures. Here in an adjoining field we saw three plover, within shot of the low hedge row that divided the fields. We drove along about a hundred yards from the hedge and Irvey slipped from the surrey and started to stalk them. Stealthily as an Indian he crawled over the grass, and soon was at the low hedge, while we watched his every move. Cautiously he peeped through at the unsuspecting birds, then sprang quickly to his feet and made a beautiful right and left on the nearest birds as they took wing. As he brought the birds to the surrey, he handed them to the doctor and said, "There, Doc, that's what I do with the old 'gas pipe,' when I have half a chance. There's a big wheat stubble, one field farther over," he continued. "We may find some doves on it, so we will walk over, and meet Dick at the road again."

Reaching the stubble field, we sep-

DICK ROCK'S ZOO AT HENRY'S LAKE

SPORTSMEN OF THE EIGHTIES MAY REMEMBER THIS INTERESTING OLD TIME HUNTER AND THE UNIQUE COLLECTION OF WILD GAME HE KEPT AT HIS RANCH

By HENRY BANNON

HENRY'S LAKE is located in Idaho, about eighteen miles west of the Yellowstone National Park. A tributary of Snake River bears the name of Henry's Fork. Irving, in Bonneville's Adventures, is authority for the statement that Henry's Fork is "called after the first American trader who erected a fort beyond the mountains." As Henry's Lake is not far from Henry's Fork it would seem that the lake was named after the same trader. During the eighties and early nineties, Henry's Lake was famous as the center of a big game region about which the wapiti, deer, bear, antelope, moose and bighorn were abundant. In their spring and fall migrations the antelope passed just north of the lake so it was a favorite place for antelope hunters. Today it is well known for its trout fishing in the summer and duck shooting in the autumn.

Even during the depth of winter there is much fishing through the ice at Henry's Lake, and a story is told of an old fisherman there who uses grubs, taken from decayed logs, for bait. During a severe cold spell, when the mercury is from twenty to forty below, these grubs freeze hard and cannot be put on the hook, so the old fisherman devised a simple plan for keeping them warm and active. He keeps them in his mouth until they are needed!

The postoffice bears the designation Lake, Idaho, and at the store where the postoffice is located there is quite a collection of antlers, mounted specimens of animals and birds, Indian relics and old photographs of western scenes.

Two of the early settlers at Henry's Lake were Dick Rock and Vic Smith, both being well known hunters. They came to the Lake from the Yellowstone River country about 1885, and before that time worked together as buffalo hunters, Smith doing the shooting and Rock the skinning.

Dick Rock built several corrals at Henry's Lake and spent considerable time and effort in collecting specimens of the native game which he kept in captivity in these corrals.

He obtained two mountain goats near Darby in the Bitter Roots and brought them to his ranch. The time necessary to bring these goats



Mountain goats at Dick Rock's ranch

from Darby to Henry's Lake was at least from five to six days. A platform was built in the goat corral, and the goats much preferred even that slight elevation to the surface of the ground. These goats were considered by Rock to be more dangerous than any of the other animals kept by him. Rock finally sold them and in all probability they are the captive goats described by Dr. Hornaday in "Camp Fires in the Canadian Rockies."

ROCK also had quite a herd of buffalo. He collected several buffalo calves on Warm River, a tributary of Snake River, during early May and brought them on sleds along the western line of Yellowstone Park to Henry's Lake. From this nucleus he formed quite a herd, some of the descendants of which are still kept in enclosures not

far from Henry's Lake. One of the buffalo owned by Rock would permit him to mount his back and ride him; but one day, as Rock had often been warned by his friends, the wild instinct of the animal returned and he gored and trampled Rock to death.

Some of the descendants of a buffalo herd established by Dick Rock are still kept under fence not far from Lake. A few years ago the herd escaped and wandered about over the prairies and mountains without restraint. Employees of the Yellowstone National Park, learning of the presence of some buffalo at large in the vicinity of the Park, concluded that they had escaped from the Park, rounded them up and drove them into the Park. But later it developed that the herd was privately owned so it was returned to the owner.

While these buffalo were at large, Glenn Conklin took some photographs of them, two of which are quite characteristic of the buffalo. Incidentally, these pictures will illustrate certain habits of the buffalo described by Audubon. In volume 2, at pages 36 and 124 of Audubon and his Journals may be found the following notes made by that famous naturalist:

"The buffalo, old and young, are fond of rolling on the ground in the manner of horses, and turn quite over; this is done not only to clean themselves, but also to rub off the loose old coat of hair and wool that hangs about their body like so many large, dirty rags. . . . When buffaloes are about to lie down they draw all their four feet together slowly, and balancing the body for a moment, bend their fore legs and fall on their knees first, and the hind ones follow."

In one of the pictures taken by Mr.

Conklin the dust created by the buffalo in pawing is shown and also the head of the herd with all four feet together, the body balanced and about ready to fall. In another picture the same animal was rolling in his wallow, almost on his back, and a shaggy foreleg in the air.

Young antelope were frequently caught in the vicinity of Henry's Lake, but they could only be caught when a day or so old. An antelope mother



Showing the head of the herd with all four feet together and body balanced, about ready to roll as described by Audubon



An encampment of Shoshone Indians near Dick Rock's ranch at Henry's Lake

leaves her young lying in the grass while she goes off to feed, but returns occasionally to nurse it. By watching the doe antelope go to nurse her young the location of the young can often be found. Even then it was difficult to find them as the little ones lie close in the grass, with ears laid back, thus rendering them quite inconspicuous and hard to detect. When a day or so old they may be easily picked up, but if four or five days old they cannot be run down, even with a horse. When caught very young they remain about a ranch well contented, even to the extent of coming into the house and climbing onto the beds.

A few years ago there were thousands of these beautiful animals on the plains, but civilization has crowded them from their natural homes into the mountains. There they cannot survive, as they are peculiarly adapted to level land, running with marvelous speed, but unable to jump as does the deer. Thus in the mountains they can make little progress where gulches, rocks and down timber are encountered and they become an easy prey for hunters and predatory animals.

The antelope were ruthlessly slaughtered during the eighties and early nineties. In one winter the Indians near Henry's Lake killed over three thousand for their hides and the ranchmen formerly killed them for dog feed, hog feed and coyote bait.

WITH moose, Rock was not so successful. At different times, covering a period of a few years, he caught about fifty-two moose, principally calves, but only succeeded in raising two or three. One of these he could drive to a sulky. Nearly all the moose he succeeded in capturing died before he got them to his ranch.

Rock was as successful in keeping bear and elk in captivity as with the buffalo. But it is well known that both bear and elk will stand reasonable confinement very well.

Elk may be captured in the early



Antelope are fast disappearing from their former haunts in the west

spring when the snow is deep and upon being caught they kick viciously with both fore and hind feet; but when striking with the fore feet the elk rears, and the blow can be avoided easily as the fore feet separate as the animal comes to the ground. One ranchman captured and kept nine elk in a corral for several weeks. A blizzard piled the snow up to the top of the fence thereby affording a convenient way for them to escape and they were not slow in walking across the snow drift.

Dick Rock was an unusually hard worker, a fast traveler, wonderfully adept at snow shoeing and ate but little meat. Vic Smith did most of the hunting for the outfits that he and Rock would take into the mountains. Smith used a .38 caliber Winchester, Model '73, and was one of the best and quickest shots that ever hunted in the west. He could hit an empty rifle shell thrown into the air and has been known to alight from his horse as grouse were rising from the ground and kill two with his rifle before they could get out of range. His favorite rifle was given to him by the Marquis de Mores, who was a well-known ranchman in Dakota. Medora was named for the wife of Mores.

Both Dick Rock and Vic Smith were fine exponents of that hardy race of pioneers who pushed across the mountains a half century ago and delved into a region of game, the like of which will never be seen again on this continent.

Sportsmen of today love to picture what that land must have meant to the men who loved the wild creatures of the wilderness. What wonderful chances for observation they must have had and what a limitless field for the naturalist!

Just to have lived in that unbounded range was indeed a glorious heritage.



One of the buffalo owned by Rock would permit him to ride on his back. This picture was taken shortly before one of these buffalo trampled him to death.

A MANUAL OF WILD-FOWL SHOOTING

PART ONE OF A SERIES OF ARTICLES DESCRIBING THE TRAITS, CHARACTERISTICS AND METHODS OF HUNTING OUR WATER-FOWL—THE WILD SWANS AND THE CANADA GEESE

By FREDERICK A. WILLITS

THERE are two varieties of wild swans indigenous to North America, the trumpeter swan and the whistling swan. The plumage of both birds is white; feet, legs and bill black. They are distinguishable, however, by their size and by the presence of a yellow spot near the eye of the whistling swan which is absent in the other bird. The trumpeter swan is the larger, weighing from twenty to thirty-five pounds; the whistling swan weighs from ten to twenty pounds. The plumage of the young of both birds is gray, this changing to snow white as maturity is reached. The trumpeter swan is named from its voice which resembles the loud, clear note of a French horn.

The trumpeter swan is distinctly a western bird and was formerly abundant from the Mississippi Valley to the Pacific Coast. The whistling swan was in past years very plentiful throughout the country in general and along the Atlantic Coast, especially from Florida, north to Chesapeake Bay.

Wild swans were formerly extremely abundant in Southern California and about the Gulf Coast in Texas, also in sections of the Mississippi Valley. Here, as elsewhere, they did great damage to the wild-fowl feeding grounds, destroying much more grass and grain than they consumed and thereby spoiling large tracts which would have supported the ducks and geese for a long time.

Many thousands were killed annually by sportsmen and market hunters. The swans were sold on the market and the hordes of professional hunters found their pursuit a very profitable occupation. There were few game laws then and the existing ones were rarely enforced. The inevitable result occurred. Each year the great birds came in sadly diminished flocks, until today the swans are never seen in many localities where once they were abundant, and only a few places remain where they can be found in anything like their former numbers.

Fortunately for the splendid birds and the coming generation of sportsmen, adequate game laws were enforced just in time to save our largest water-fowl



A whistling swan

from certain extinction. Laws in most of the states prohibiting the sale of game, thereby ending the days of the market hunters, were the most important in saving the swans as well as many other species of our game birds. Swans are now and have been for a number of years protected during the entire year throughout the country by federal law. This law should receive the solid support of every sportsman and nature lover, for it was a wise step taken to save certain species of our migratory game birds from following the path of the passenger pigeon, the buffalo and others. A few swans are still to be found on Currituck Sound, North Carolina, and on other bays and sounds along the southern Atlantic Coast, also in restricted sections about the Pacific and Gulf Coast. Under the protection afforded by the government the birds are reported on the increase in Texas and on

some of the southern sounds. The young birds, called cygnets, are good to eat; the old ones are tough.

Swans are extremely wild and shy and their pursuit is often more difficult than the far-famed wild goose chase. When flying, swans are often high in the air, far out of range, and they are ever on the watch for a hidden enemy.

THE swans are shot from shore blinds and from batteries or sink-boxes anchored out on the open water, but the latter method is now unlawful in many states since it tends to drive the fowl off the feeding grounds and is also very destructive. Both live and wooden birds are used for decoys. The live decoys are, of course, the more attractive, and on some of the club grounds, where the swan shooting was still good before the federal law prohibited the hunting, large flocks of swans were kept to be used in luring their wild kindred within range of the guns.

Pass shooting, point or flight shooting, as the sport is variously called, is often practised throughout the west. No decoys are used. The hunter conceals himself under the line of flight which the birds have established in flying between one feeding ground and another. At some place in this line of flight the fowl may be required to pass near or over a point where there is sufficient natural cover to conceal the hunter, and here some good shooting is often to be had. If natural cover is scarce, the hunter digs a hole in the ground in which to hide.

Swans when coming to the decoys are flying slowly preparatory to alighting, and

because of their great size are easy marks, but in flight shooting the birds are under full headway when they pass, often at long range, and the shooting then requires skillful handling of the gun. Because of their large size and great wing spread, they do not appear to be moving very fast. But, as a matter of fact, they fly with great rapidity, estimated at the rate of one hundred miles an hour. The point of aim should be yards, not feet, ahead of a swan passing at fairly long range, and this lead is all important else the



A flock of Canada or common wild geese

hunter will surely shoot behind the bird.

Swans are sometimes shot by stalking them as they are standing on the shore of bay or river or in the marsh. This calls for extreme caution and skill, and the hunter who walks within range and bags a wild swan has good reason to be proud of his achievement.

Swans, like the geese and ducks, when taking flight are compelled to rise against the wind, and the heavy birds then have difficulty in leaving the water. Taking advantage of this, it was formally a custom to sail down on the birds, going with the wind. But the shooting of wild-fowl from sail-boats and all boats propelled by means other than oars is now prohibited by law.

The sportsman who owns several guns may use the 10-gauge, or even the 8-gauge, to advantage in swan shooting. The great 4-gauge was used in this sport years ago. The birds have great vitality, are protected by a heavy coat of feathers and are often shot at long range. Heavy charges of powder and large shot are required to bring them down. When so large size shot as double B's, F's, or double F's are used in a 12-gauge gun it is at the sacrifice of pattern, since the 12-gauge case will not hold a sufficient number of the large pellets to make a killing spread of shot at average ranges. Therefore, the very large shot should be used only in the large gauge guns. The use of guns larger than the 10-gauge is now prohibited in many states. It is a question if the better grade of sportsmanship is not confined to the use of shot-guns no larger than the standard 12-gauge. Swans coming to the decoys are within range of the 12-gauge and can be killed with a heavy duck load of number 2 or number B shot, the latter size being about the largest that is practical in the 12-gauge. Birds out of range of the 12-gauge are generally out of range of any and the lighter gun is better sport.



A pair of Canada geese swimming

Swans are powerful swimmers and a wounded bird on the water can distance the average rower.

The wild swans fly in long lines and are very beautiful in the air and on the water.

ONE day on Barnegat Bay, a few years ago, a bay-man and I lay hidden in our grass covered gunning boats waiting for the next flock of ducks. The day was cold and clear, with the sun shining brightly. Far to the north and high in the air appeared several small, indistinct, moving objects, showing dimly white now and then against the blue of the November sky. The objects drew rapidly nearer, growing larger, whiter and more distinct. When still fully a mile away we could not mistake their identity. They were wild swan, seven of the great birds in the flock.

As straight as an arrow's shaft they streamed through the clear air, one bird

directly behind the other. In silent admiration we watched them as they flew very high over the narrow strip of beach which separates the bay from the sea and passed us at a half mile distant on their long journey southward. It seemed as if an aerial regatta was being sailed over head on an inverted sea of azure blue. The huge birds, each with a wing spread of six feet or more, moved like yachts under full canvas. Their beautiful white plumage glistened like new snow in the sunlight. With long necks stretched straight out they seemed to glide through the air to the measured sweep of the board wings; their every movement was one of grace and ease and confidence. It was the most impressive sight I had ever seen in Nature. They did not appear to be moving swiftly, but, with all that, they were flying with great speed, and almost before we realized it the great snowy forms were growing smaller and smaller until they merged with the sky.

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A flock of wild swans gathered in one corner of a lake. The young birds can be distinguished by their gray plumage.

SOME ASPECTS OF STREAM POLLUTION

THIS VITAL SUBJECT MUST BE APPROACHED IN ALL SERIOUSNESS AND THE ARMS OF THE MEN WHO ARE FIGHTING IT MUST BE UPHELD

By DR. CHARLES H. TOWNSEND

THE American Fisheries Society, at a recent meeting in New York City, lasting several days, devoted several sessions to the subject of water pollution as affecting the fisheries. It was shown beyond doubt that during recent years the pollution of streams has increased enormously and that there is great need for concerted action in dealing with it. Corporations and individuals should co-operate with state and national fishery and health boards, and a campaign of education should be arranged for.

The subject has many bearings: the loss of food fishes, the destruction of spawning grounds, the abandonment of fishery industries, the menace to public health, the contamination of city water supplies, the loss of chemical by-products, the injury to property, the accumulation of deep beds of sludge in harbors, the unsightliness of polluted streams, etc., etc.

The reports of various state fishery boards are burdened with the evils of water pollution by sewage and factory wastes. In spite of the existence of statutes broad enough to meet most of the conditions, little headway is being made. It is not our national habit to begin reforms when serious results are threatened, but rather after trouble has actually arrived.

The decline of the shad fishery in the Hudson River is attributable chiefly to pollution caused by sewage and manufacturing wastes. From 1888 to 1901 the catch of shad varied from three million to four million pounds a year. For ten years subsequent to 1901 it never reached one million, and since 1910 has not reached one hundred thousand pounds, until 1918, when for some unexplained reason there was a slight rise.

The ruin of the shad fishery in the Hudson has taken place in spite of active shad propagation by national and state agencies, and this is true of other shad rivers where the population is great and manufacturing extensive.

The Hudson River receives the sewage of 175 cities and towns, and the acid wastes of innumerable factories. It is polluted to its headwaters, and above Albany receives the manufacturing wastes and drainage of 63 mills



Photographed by W. F. Patterson, courtesy of the Zoological Society Bulletin. Sawdust allowed to accumulate on banks is carried away by the water.

and 120 towns. In a report of the Connecticut Fishery Commission it is stated that the once famous shad fishery of the Connecticut River has been ruined chiefly by poisonous wastes drained into the stream.

The City of New York admits that it is not prepared to embark on a sewage disposal scheme which would probably cost many millions.

While adult fishes of some kinds can survive in polluted waters, the eggs and young of most species perish. Such conditions prevail in many states and our efforts at restoring the fisheries by fish cultural methods are unavailing.

The City of New York has recently been described in a report of the Merchants' Association as located in the midst of a cesspool. That there is much truth in the statement is borne out by the experience of the New York Aquarium. A dozen years ago it was difficult to maintain the marine exhibits of the institution on account of the impurity of the so-called sea water pumped from the harbor. The collection of sea fishes could be kept up only by constant collecting and re-stocking. It was found after careful examination that the water

was saturated with sewage and manufacturing wastes, and that it would be necessary to provide a pure salt water system. A reservoir was constructed in Battery Park near the building, and filled with 100,000 gallons of pure seawater brought in from the open ocean in a tank steamer. When the foul water from the Harbor was finally cut off, and the exhibition tanks filled with the clean sea water pumped from the new reservoir, matters improved at once. By the end of the year it was evident that the annual losses of

sea fishes and the expense of collecting them had been reduced fully fifty per cent. This stored sea water has been used ever since.

The results afforded an object lesson on water pollution as affecting the fish life, which attracted the attention of persons concerned over the pollution of the Harbor. About that time the Metropolitan Sewerage Commission began investigations which were continued several years. The general extent of the pollution of the Harbor was ascertained and recommendations for sewage disposal were made, but no action was taken by the City.

Naturalists of the past generation studied fishes and other marine forms from the waters about Manhattan Island, which are not to be found there at the present time. It is possible that with increasing pollution, fish life will not exist in the water of the Harbor at all, and that the lower forms of marine life, which assist in the disposal of waste matter, will themselves be dispersed.

It should be borne in mind that it is not sea water which ebbs and flows about the City, but brackish water diluted by the Hudson River to less than half the saltiness of sea water. This has been demonstrated by the daily salinity observations made at the Aquarium continuing over fourteen years. Tests made by the Sewerage Commission showed that sewage is not swept away by the tides, but merely oscillates between the Narrows and the Harlem River, gradually settling into deep beds of sludge.

The conditions about New York are not unique, but are to be found adjacent to all large cities in America.



Photographed by W. F. Patterson, courtesy of the Zoological Society Bulletin. Water pollution by a sawmill on the Delaware River.

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BIRD MIGRATION UNDER THE STARS

DURING LATE SEPTEMBER DAYS THE BLUE SKY IS OFTEN DOTTED WITH BIRD MIGRANTS BUT IT IS ON QUIET NIGHTS THAT THE SQUADRONS CHIEFLY PASS

By WILMOT TOWNSEND

THE laws that govern times and seasons for our bird migrants are not as yet thoroughly understood by ornithologists.

There are many theories, but little positive knowledge on the subject.

Food supply is undoubtedly a powerful factor in bird economy, and will account for their absence in certain localities where they were formerly abundant.

The draining of large tracts of meadow has given increased acreage to cultivation, but the resulting scarcity of waterfowl is owing to the destruction of the wild rice and water plants that formerly supplied

their swarming thousands with food in these localities. In other sections the clearing of forests and woodland has had its effect, as seen in the diminished numbers of our land birds whose cherry voices once brightened these now desolate places in spring and autumn.

The migration continues as in ages past, but these local changes affect it, deflecting the travel somewhat, that the comfort and well being of the tourists "en route" may be properly provided for. Many of our birds migrate by day as well as by night. Wild geese, swans and waterfowl of all kinds are often seen on their travels.

In late September the blue sky is often dotted with circling hawks in every direction while hordes of high-holders and their kin "bound" along, clipping the crisp morning air with swift wing strokes, but 'tis "under the stars" on quiet nights that the squadrons chiefly pass. Hence the mystery and charm of it. We have the inland flights via the Mississippi and Ohio valleys, and a coast-wise flight along our ocean borders.

Twice each year, as regularly as the tides ebb and flow, the streams of bird life pour along these ancient highways. The astronomer sees their "silhouettes"

as the fairy forms pass between his telescope and the silver disk of the moon. The lighthouse keeper hears a tiny thud on the glass of his light and feels a pang of regret that a bright little life has dashed itself away, bewildered by the glare.

In foggy weather he picks up many lifeless and broken little bodies at the foot of the tower, bird travellers gone astray and destroyed in the misty night. The keeper at Fire Island Light, in speaking of this to me, many years since, said: "Wild geese used to 'raise ned' round here on foggy nights. Three of

on the rocks at Execution Light on Long Island Sound after a thick night.

Execution Light, how appropriate. There are many such casualties at every lighthouse on the coast. Where many millions are travelling some are sure to fall by the way while the majority pass in safety.

I WITNESSED a spring migration of shore birds on the Virginia coast in 1894. The miles on miles of salt marsh were very desolate in early April of that year when I first arrived, but one morning I awoke to find the air vibrant

with the harsh cackle of the meadow hens that had come over night. There must have been thousands of them scattered over the meadows, and from then till we left, their noise was incessant. In spite of their numbers we saw but few, so well did they keep hidden in the sedge. After a few days the balmy weather we had so much enjoyed changed to chilly easterly winds and howling gales that pelted the marsh with driving rains into sodden dreariness. One afternoon the wind changed and



From a drawing by Wilmot Townsend.

Wild-fowl were wheeling and weaving about in erratic flight over the dun meadows

them once banged through the glass screen that protects the lantern. I got two up there, and one next morning down below, with his neck broken and his head almost cut off by the breaking glass when he struck. They soon learned to steer clear of the light, though, and now for the most part don't bother me.

"I get all the ducks I want to eat every spring and fall; they very seldom strike the light; seem to hit the tower 'bout twenty foot down mostly, while them little birds always go for the light. I can hear 'em some night spat, spat, spat agin the glass. I mostly save 'em and sell 'em to bird stuffers."

I knew an old gunner who told me he had often picked up six or eight ducks

soon the gale boomed off, leaving a strange silence after the wild tumult that had so lately raged. A lurid sunset preceded the quiet night. At 10:30 P. M. the yacht swung peacefully to the swirling tide. We were reading quietly in her cosy cabin when suddenly the clear pipes of curlew rang above the din of the meadow hen. A wild scramble followed as we tumbled out on deck.

The night was pitchy dark, not a star visible, but so still was the air that the cries of the birds, whose advent had so startled us, could still be heard as they swept on, fainter, fainter, till the night closed them in. Soon far to the south I heard another party; louder grew the

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JAMES ALEXANDER HENSHALL

THE AUTOBIOGRAPHY OF THE APOSTLE OF THE BLACK BASS,
FATHER OF THE GRAYLING AND DEAN OF AMERICAN ANGLERS

FIFTH PAPER

ABOUT the year 1850, Jenny Lind, the Swedish Nightingale, was touring the United States under the management of Mr. Barnum. When in Baltimore she gave a free matinee to the advanced pupils of the city schools. On that occasion Front Street Theatre was filled from pit to dome with girls for the first hour, and with boys for the next, though the girls declared that she entertained the boys for an hour and a half. However that might have been Johnnie and I obtained good seats in the family circle, or first gallery or tier, of which there were several, the theatre being a very large one.

Her voice was a bright and sympathetic soprano of remarkable compass, volume and brilliancy, which I have never since heard equalled. She possessed, seemingly, ventriloquial powers, which were especially exhibited in her unique flute, bird and echo songs. In the flute song she stood between two flute players, and at times her voice and the flutes were so blended that it was almost impossible to distinguish her voice from the instruments. Johnnie was sure there were three flutes, which really seemed not improbable, as her flute-like tones rippled and trilled in concert with the instrumentation.

Recently I heard the famous and favorite soprano Amelia Galli-Curci in a selection from the Barber of Seville, in which she introduced some vocal gymnastics with coloratura effects that reminded me very forcibly of Jenny Lind's flute song, and in a minor degree of her bird and echo songs.

In the bird song of Jenny Lind there were passages where one might close his eyes and imagine himself in an aviary of canaries and thrushes. She also sang operatic selections and concert pieces which were mostly beyond our comprehension. Then at her request several thousand boys sang patriotic and school songs with such verve that delighted her so that she burst her white kid gloves in enthusiastic applause. She was a good, noble and charitable woman, and died in England, universally regretted.

About this time, when on my way to school one day, I saw a great concourse of people in front of Barnum's Hotel listening to a forceful and thrilling appeal for liberty and freedom for Hungary. The speaker was Louis Kossuth, the Hungarian patriot, who had tried and failed in a revolution against a despotic autocracy. He wore an Alpine felt hat with a small feather at one side. This style of hat soon became very popular, and the "Kossuth hat" became the vogue and supplanted to a great extent the ugly tall, silk hat, which was then the universal headgear. Kossuth was

then preaching liberty and self-government for Hungary, and now, after the lapse of seventy years his dream of a free Hungary seems about to be realized.

The American people, at all events, are under an everlasting debt of gratitude to Louis Kossuth, if for nothing else, for the introduction of the soft felt hat, which has proved so comfortable and popular with the civilian, the soldier, the cowboy and the sportsman.

ABOY named Andrew, a widow's son, who lived in my neighborhood, was the proud possessor of a shotgun and its accoutrements which had



Dr. Henshall at sixty years of age

been bequeathed to him by a relative. It was a single-barreled muzzle-loader with a percussion lock, with a barrel about 20-gauge and thirty-four inches in length, long enough, as Johnnie said, to knock squirrels from the tree tops without the waste of ammunition. It was an exceptionally fine English gun, and Johnnie and I deliberately and without contrition broke the tenth commandment whenever we were shown the gun, powder flask, shot pouch and game-bag.

Andrew's mother, being a Quakeress, had an inherited dislike and a natural aversion to firearms in general and to this gun in particular, so that the unfortunate lad was denied his oft-expressed desire of going a-field clothed in the panoply and paraphernalia of a full-fledged sportsman. To him the province of sport was, therefore, a closed book, and the future bid fair to be a perpetual

close season so far as he was concerned. So, in this state of affairs, and after due consideration of the matter from various angles, Johnnie and I thought it advisable to relieve the mind of Andrew's mother by relieving Andrew of his inherited incubus, which she had often said was a constant menace to her, inasmuch as it was dangerous without lock, stock or barrel.

So with malice prepense we set our sails to the favoring breeze, and taking Andrew aboard, we proceeded to instruct him in the methods of playing the banjo and the accordion; the object of this will be seen later. After several weeks of patient and persistent instruction and faithful practice, Andrew became so far advanced as to be able to play a number of popular airs on the accordion, and to pick Ole Zip Coon, Juba and several other negro melodies on the banjo. Then, by previous arrangement, we went one evening to Andrew's residence and played our entire repertoire for the delectation of Andrew's mother. She was especially delighted with Andrew's proficiency with the bellows and the banjo, for it was a complete surprise to her.

I then unfolded our plan, to wit: that I would trade my banjo, accordion and one of my cedar fishing rods for Andrew's gun and would continue to give him lessons on both instruments until he was as far advanced as Johnnie or myself. I also agreed to take him along when we went fishing. She said that it was a very good arrangement, and according to scripture, for the apostles James, John and Andrew were all fishermen, and did not care for guns or pistols, even if they had been invented at that time. Then Johnnie came near spoiling it all when he said:

"If the apostles did not use guns or pistols maybe the epistles did, for that sounds something like it."

Finding that Andrew was perfectly willing to make the trade, his mother expressed herself as much pleased and satisfied with the deal, and was more than glad to get the gun out of the house. I thanked her and added that when I got enough money together I would buy the accoutrements. To my surprise and delight she said:

"Oh, take them along; let the tail go with the hide!" On many Saturdays after that the three conspirators repaired to Rogers' Woods (now Druid Hill Park), and took turn about in knocking squirrels from the tops of the grand old trees; not as Johnnie once said with the gun barrel, for with two drams of black powder, and three-quarters of an ounce of No. 4 shot the long, small bore was as deadly as a rifle.

There was a certain indefinable charm

about the old muzzle-loader and its equipment that was utterly lost with the advent of the breech-loader. There was a subtle fascination connected with the old powder-flask, shot-pouch and game-bag when they were hung over the shoulders that we shall never know again.

And then when a-field there was an allurements in the reloading of the gun, with the dogs lying at one's feet, resting and watching with intense interest the careful measuring of the shining black grains, setting the wad, which may have been a piece of the morning newspaper, and ramming it repeatedly until the ramrod leaped from the barrel; and then pouring in the shot from the brass scoop of the pouch, and pressing the wad lightly but firmly over it; and last of all, blowing away any chance or imaginary dust from the "G D" percussion cap before placing it on the nipple; and then with the lock at half-cock—which was the signal for the dogs, ever alert, to rise with eager expectancy. Then with the gun over the shoulder to again sally forth, while the dogs responsive to every motion of the hand, proceeded to range far and wide. In the meantime the alarmed covey had become somewhat assured that the danger was not so imminent, until found again by the unerring scent of the faithful dogs.

All this is now but a pleasant and cherished reminiscent dream of former joys and bygone days that we shall never know again; for with the modern breech-loader under one's arm at "safe," and with pockets filled with cartridges, we must be fully awake and alert to every movement of the dogs, while we tramp, tramp over the decimated uplands, deserted coverts and forsaken stubble fields.

BEFORE parting with banjo and accordion in exchange for Andrew's gun my father had given me a violin as a reward for passing to the high school, but with commendable thoughtfulness he also purchased a mute or muffler for the bridge, out of consideration and compassion for the neighbors. I was now able to lead the band with the violin, and as Andrew had become quite competent and even skillful with the accordion, the banjo fell to Johnnie, to his great delight and satisfaction.

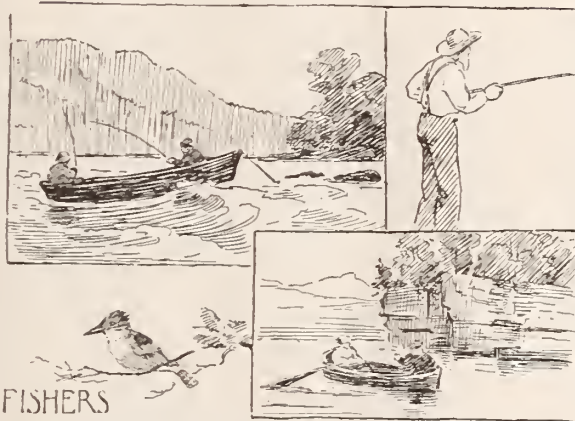
During the Christmas and Easter holidays our "orchestra" became quite popular and was in frequent demand for neighborhood parties and dances. We also volunteered to play at Sunday School exhibitions and picnics. Our repertoire was now considerably augmented and consisted mostly of dance music, such as waltzes, polkas, hornpipes, reels and negro melodies, taken from a popular collection of music for the violin. Some of the negro airs were syncopated plantation jigs which were the progenitors or stepfathers of modern rag time.

Johnnie had acquired a way of sliding his fingers along the strings of the banjo, which at that day had no frets, with very pleasing effect, somewhat similar to the Hawaiian ukelele now so much

in vogue. He also, by sliding his thumb up the bass string produced an amusing variation not unlike the queer sliding notes of the trombone in the Jazz band, now so popular, all of which goes to show that there is nothing new under the sun. We were wedded to our music and practiced dilligently, for as Johnnie, who was something of a wag, said:

"Music hath charms to soothe the savage,
Melt a rock or split a cabbage."

ANDREW was fortunate enough to have an uncle who owned a large plantation on the Patapsco River not many miles from Chesapeake Bay, where he and his mother spent part of the summer months each year. So after talking the matter over with our parents, and after the consent of Andrew's uncle had been gained to camp on his place, we planned an outing of two weeks during our school vacation in August. Our parents were quite willing, having confidence in our ability to take good care of ourselves, but stipulated that we should each take a grain or two of quinine at night as a prophylactic against "chills and fever," which was prevalent



along the river. Another stipulation was that we should not altogether neglect our studies, especially Latin; so we agreed to take along Caesar's Commentaries, of which we were all very fond.

We arranged with our friends, the market fishermen of Spring Garden, for the charter of a twenty-foot catboat with center-board, a clinker-built rowboat, a short seine for soft crabs and terrapin, a wall tent and other necessary articles. We got together a lot of culinary utensils including a Dutch oven, a supply of groceries and a generous amount of ammunition for the shotgun.

At the beginning of the second week in August, Johnnie and I left our moorings at Bailey's wharf at daylight for an all-day sail down the Patapsco; Andrew and his mother having preceded us a week before. As the wind held fair and blew quite fresh we arrived at our destination just before sundown, without mishap.

Andrew, anticipating our arrival, had selected a fine camping site in a shady grove of young trees and had collected a large wood pile of oak, chestnut and light-wood for the campfire. The camp

was very convenient to the outdoor kitchen presided over by Aunt Miranda, who brought us a pan of hot biscuits and another of steaming corn-pone every morning, for our breakfast. And under her skillful tuition we soon learned to prepare and cook fish and game, and oysters, crabs and terrapin. She also saw to it that we were liberally supplied with sweet potatoes, green corn, tomatoes, peaches, canteloupes and water melons, which were all then in season and very abundant.

Aunt Miranda was not only autocrat of the breakfast table, but of the dinner and supper tables as well. She not only ruled the "kitchen cabinet," but held sway over the white folks and house servants at the big house and was law and gospel to the field hands. Her power was absolute: "From the center all 'round to the sea her right there was none to dispute." Her scepter was the basting-spoon, and woe to the culprit who fell under her displeasure.

It has been shown in the late cruel war that the fate of nations could be controlled through the stomach, so in much less degree did Aunt 'Randy control her subjects through the same sensitive organ. Aunt 'Randy possessed a commanding physique, stout and buxom; her visage was broad and beaming and shone like polished ebony. Her usual expression was pleasant and cheerful, with a merry twinkle in her large, bright eyes. She was always neat and tidy, even in the kitchen, and wore a red and yellow bandana neatly coiled about her head, a snow-white kerchief encircling her throat and crossed over her broad bosom. She wore large hoops of gold in her ears, and altogether was quite a figure.

Aunt 'Randy was very proud of her city quality folks, as she called us, and was always on hand, with the white folks from the big house, around the camp-fire at night, for

whose accommodation we had improvised rude seats. But Aunt 'Randy was too dignified to sit on a log of wood, so she always brought from the kitchen her big split-bottom chair. She enjoyed our banjo playing and listened with marked delight to the recitals of the day's adventures and laughed immoderately and with the utmost abandon at the amusing stories of Johnnie the raconteur. And when she finally took her leave, with the rest of our guests, she would say:

"Tank yo,' my young marsetahs, Ise had de bestes' time eber heard of; and soon's yo' heah's me shut de cabin do', strike up Sugah in de Gourd, and De Ole Coon Dawg, and by dat time I'll be fas' asleep and dreamin' of de angels playin' on dar hawps!"

Good old Aunt Miranda. She is now in heaven where there is no distinction on account of race or color or previous condition of servitude. Peace to her ashes! But her spirit, I feel sure, has joined the celestial choir, and with the rest of the white-winged angels she is "playin' on de hawp" in that happy home.

(CONTINUED ON PAGE 501)



FIGHTING THE FRESH WATER TIGER

SOME REMINISCENCES OF A TRIP MADE THIRTY YEARS AGO INTO THE WILDS OF WISCONSIN AND OF A MIGHTY BATTLE WITH A GAMEY MUSKALLONGE

By F. H. GRAHAM

THE northern part of the state of Wisconsin is almost a network of lakes, lying isolated or in chains, connected with one another by waterways, with outlets into Lake Superior or the Mississippi River. These lakes vary in size from a few acres to several square miles in extent, and are filled with a variety of fresh water fish. Among the gamest of these are the black bass, wall-eyed pike, pickerel, and that tiger of fresh water the lordly muskallonge or maskinonge in the Algonquin tongue. Some contend the name is derived from the French *masque longue* or long face. The name is certainly appropriate as the nose is so long and the jaw slightly prognathous which gives the face a sad and almost sinister appearance. In the estimation of many the muskallonge has no rival as a delicious food fish, the flesh being firm, fine of grain, and sweet. Whether old or young, small or large, the quality is unimpaired. It is a curious fact that of the fish mentioned, the bass, pike, and pickerel, or the bass, pike, and muskallonge, are found in the same lakes but never are the pickerel and muskallonge found in the same water. I have never heard a satisfactory explanation of this but the fact remains.

The name "tiger" as applied to the muskallonge is no misnomer for, as he lies in wait for his prey on some shallow bar extending into the lake, concealed by water lily pads or submerged weeds, he exhibits the same stealthy patience as the tiger of the jungle or plain, and woe to the food fish that crosses his line of vision. With a lightning like swirl he closes on his prey and those long jaws and needle-like teeth never let go. When feeding, the musky, as the natives call him, is voracious in the extreme. I have caught more than one that had the tail of a sucker, his favorite food, still in his mouth, the body and head being in process of digestion in the stomach. Like the brook trout, the musky is absolutely rapacious and when feeding will kill and devour to his utmost capacity.

Since the advent of the railroads into this north country most of the favorite haunts of the musky have been discovered and at the fishing resorts, which have sprung up on many of these lakes, one may meet sportsmen from all parts of the country and nearly every state in the Union. Thirty years ago the railroad had only recently been put through, connecting the central part of Wisconsin

with Lake Superior. This road ran for the greater part of the way through vast pine forests and numerous settlements had sprung up surrounding saw mills. From these towns wagon roads, used by the lumbermen, led through the woods to numberless lakes that had never been fished except by Indians or woodsmen. These afforded rare sport to the lover of the wilds.

ONE August morning, about the time of which I write, my friend Ted Pope and I boarded a train bound for the north country of sport and adventure. Our duffle bags were well packed and we felt that we were due to kill a big fish. After traveling about one hundred miles north by train, we alighted at a small saw mill settlement, so new that the shingles on the houses were not discolored. After numerous inquiries we finally found a half breed Indian who agreed to drive us out to Moose Lake, a distance of about eighteen miles, although he refused to guarantee our reception at Jake's, a sort of stopping place for loggers and trappers. "I don't know," said



Twenty-eight pounds of fighting Muskie.

Joe, our driver. "Mabeso, if whiskey all gone, Jake be good, if not, be very bad. Say he shoot any Indian come near lake." We decided to chance it and were glad we did. Our drive of eighteen miles through those woods was an event in our lives and something to remember. I have taken it many times since but it never has given me the thrills I experienced that first time. The road was good, except in spots, having been used for hauling supplies to distant logging camps. The lofty pines towered above us, interspersed with hardwood ridges covered with maple, elm, ash and hickory, standing thick and quiet and affording fine cover for the deer which were numerous.

Then another stretch of pines, with the road resembling a lane through them and the ground level and covered with a coat of brown needles. Thus does nature build and furnish her house until man comes along and makes of it disorder and ruin where it was so beautiful and old and quiet. In some of the openings the ground was literally covered with blueberries, although it was August, and *such* berries! The clusters were almost as large as bunches of grapes. From the midst of them would start up families of partridges or Canada grouse. We passed many small lakes and occasionally the call of a loon would come to us, so like the cry of a human in distress that we were always startled. Joe would say: "That loon," nothing more and what more was necessary? We, so called civilized people, certainly waste a lot of time merely talking. Joe's contributions to the conversations were not numerous or lengthy but always to the point, such as: "Deer crossed here last night," or "Bear signs here." These brief bits of information told us all that we were most anxious to know. We arrived at Jake's about sundown and found him in fairly good form and after his man Ed. had helped to put the horses in the log stable, we repaired to Jake's hotel, a log cabin of good size, and sat down to a supper of mutton, potatoes, bread and tea. In the woods, and out of season, venison is always mutton. If the man of the house does not care to take a chance on the game warden he leaves a bottle of whiskey or a piece of bacon at some appointed place on the trail and finds in its place a sack of mutton. Although he may never meet the Indian he can always be reached in this indirect way which he much prefers to open trading. Over our



A muskallonge, concealed by water-lily pads or submerged weeds, exhibits all the stealth and cunning of the tiger

pipes after supper, Ed. answered our questions. Yes, we could catch plenty of pike and bass right here but if we wanted a big musky we had better go over to the big lakes several miles east. We could canoe up this lake three miles until we came to a tall, blasted pine on the east shore then land and take the trail through the timber to the big lakes. There was no one there but we would find a boat hidden on the shore to the right of the trail. The boat might not be much of a boat and the oars just made with an ax but it would have to do, as there was nothing better there.

NEXT morning was fine and clear and we took the birch canoe and paddled up the beautiful shore of the lake for three miles. In writing of the beauties of the lake shore, I am not writing of summer resorts where handsome cottages abound and where everything seems hand made, but of natural pine forests, stretching back from the very shore line to almost infinite distance; of grass meadows, sprinkled over with the most beautiful Christmas trees; of bays, where the constantly lapping waves have made a shore line of stones as perfectly placed, one upon another, as if by the hand of a skilled artisan; of islands, rising from the water level to a mound shaped center, thickly covered with beautiful pine trees and all out of sound of civilization. And what a marvel it is that Nature does all of this without regard as to whether man, with all his power of appreciation, may ever see or admire.

After hiding our canoe we took the trail, which we found fully equal to Ed's description, and, we thought, a little beyond even that. Two miles of condensed toil and trouble, with hog backs, swamps and windfalls to add variety, if not simplicity to the route through the forest.

The trail was plainly blazed. As our only pack was a large sack for carrying our possible catch and our lunch, we could not carry rods, so had to depend on a hand line, which we carried in a pocket. All troubles must come to an end sometime and we finally reached the shore of the big lake and located the boat as directed. It had evidently been knocked together at some saw mill and hauled in by the longer route. Our first attention was given to our lunch, after that a rest under the pines until our impatience getting the better of us, we got out our hand line and attached a number eight Skinner spoon. As Ted weighed one hundred and eighty pounds I elected to row and allowed him to handle the line.

"Now," said Ted, "you row slowly past that point where you see those weeds sticking out of the water. A bar runs across there and that is where he is waiting for us." As we neared the point, Ted dropped the hook over the stern and began to pay out line but had not let out more than fifteen feet when there was a commotion near the hook, as if a bomb had exploded, and, as the line straightened out, a musky flew into the air, entirely out of the water. He looked to me as large as a shark. My oars remained suspended in the air through sheer amazement, while Ted with jaw set, hung to the line. Now bear in mind that when a musky of this size is caught with rod and reel it takes a half hour's nerve racking strain to tire him out, so that he can be shot or gaffed. Ted, however, did not propose to take any such chance with his hand line. He used his one hundred and eighty pounds of weight and muscle and in came Mr. Fish, hand over hand. Fortunately the hooks held and he lifted the musky right into the boat and then the fun commenced. That fish had no idea of remaining in that boat, being as

much alive as he ever was but we had no idea of his doing anything else. Ted grabbed for the revolver lying on the seat but I yelled: "Don't shoot, you'll sink us," so we both threw ourselves on that fish, catch-as-catch-can, and McLaughlin in his palmiest days could not have done better. The bottom of the boat was wet and that musky was as slippery as any eel. Fore and aft we went, bumping heads and getting hold but without being able to hold on. My pipe went skipping over the water and my watch crystal was wrecked by a slap of his big tail. Finally, by good luck, Ted got a hold in the gills and turned him up while I gave him a knockout blow with a paddle.

WE shook hands and rowed for the shore and Ted said: "That would be enough if it was not half so much." We repaired damages as well as we could and started on the back trail. We took turns carrying that fish and before we reached the other lake it had grown in weight at least one hundred pounds. When we got to Jake's we weighed our prize on the steelyards and found it to be twenty-eight pounds. "Just the weight," Jake said, "that makes the best fight." We have since caught larger and smaller muskies but never such a scrapper. How we got that fish home and banqueted our friends is another story and, although we have often made the trip since and have grown older and wiser, we have concluded that, in spite of our added wisdom, if we had that job to do over again we would probably lose that musky, and assure our friends that he weighed much more.

The recollection of that trip through the untouched wilderness of Northern Wisconsin stands out vividly among life's memories, and clear and distinct above the lesser incidents there remains the vision of that fighting fresh water tiger.

AS TO THE WAYS OF THE PERCH

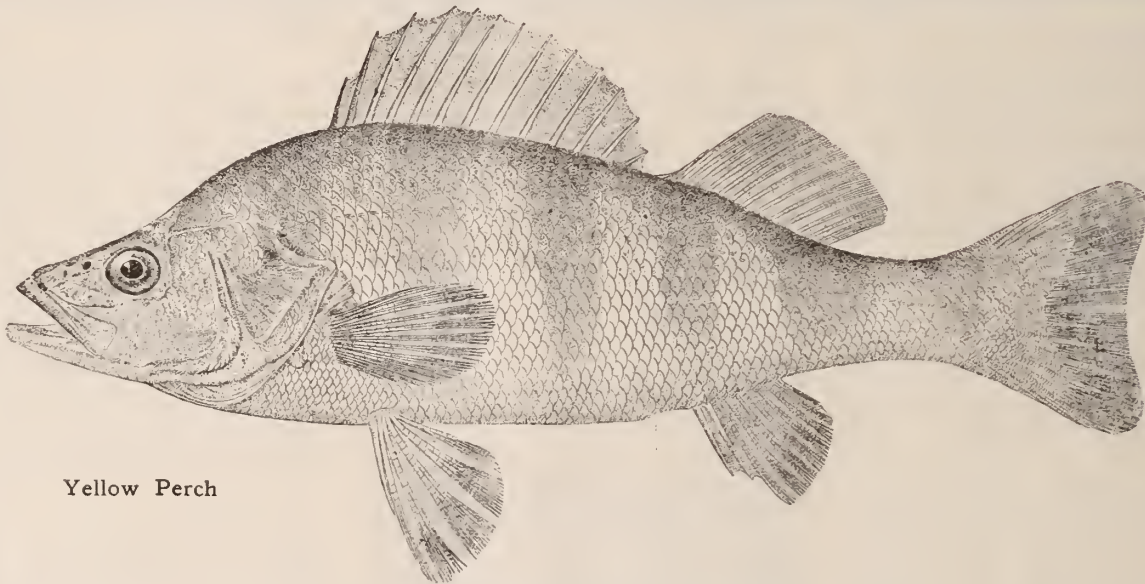
THE FOURTH INSTALMENT OF A SERIES OF STORIES DEPICTING THE SIMPLE JOY OF FISHING AS EXEMPLIFIED THROUGH THE EYES OF YOUTH

By LEONARD HULIT, Associate Editor of FOREST AND STREAM

“M-A-T-T-I-E,” called a voice from the back door of the cottage, several mornings after the cat-fish excursion. Then receiving no answer, “H-o Matt,” again sounded the voice. “All right” came back from somewhere in the rear of the woodshed, “be there in a minute,” and shortly after he came around through a back gate in a perturbed condition of mind, judging from his facial expression. He was bare-headed, and, as usual, barefooted. His hair was tousled and streaks of dust covered his face. “Beats all,” he began as soon as he faced his aunt, who had called him, “seems ’ough somebody’s been rum-magin’ all over our shed. Things are gone which was there on’y a day or two ago. The fly net what Mr. Stillwell gave me’s gone an’ the tin blickey’s disappeared too. Seen any boys moochin’ round,” he queried. “No, I ain’t,” replied the aunt shortly. “For land’s sake wash your face and eat your breakfast. I’ve been waiting more than half an hour. Your look like a chimney sweep.” The aunt, ordinarily quite correct of speech, had a habit of dropping into the vernacular of the period when a trifle upset in mind. “What about the fly net?” she asked. “Well, it’s gone,” he pouted; “don’t seem like anybody want it ’cept for what I did, anyhow, ’twas mine.” “I guess what’s around here will be used for what’s thought best, without asking questions,” said the aunt with some asperity; “anyhow, the net is of no use as I can see, except where it is. I put it over the bed you fixed for my celery plants. If you’d looked there you’d a seen it.” “You’ll allus mostly see things if you look where they be,” he returned in a semi-rebellious tone, then realizing from the look on his aunt’s face that a truce from his side of the firing line was much the safer course, said in greatly mollified tones, “we’ll fix something there what’s as good.” “I cal’late that old net will stay where I put it,” she returned firmly, “and that about ends it. Cats or pigeons would have the ground scratched up in no time likely and the seeds with it. Besides what on earth do you want it

for?” “Mr. Woodhull wanted to use it; said he had been lookin’ for somethin’ like it for some time; wants to make somethin’ out of it.” The boy carefully refrained from mentioning anything about fish or fishing at this critical period. The truth was the two had decided that if something of the sort could be procured by splitting a sapling part way down or find a properly branched one, a serviceable landing net might be constructed. That was the thing needed when in quest of perch or pickerel, particularly when fishing from a boat. This was what he had in view when he begged the discarded, rather fine mesh fly net from their neighbor. By mentioning Mr. Woodhull’s name he thought that there might be a chance for surrender on the part of Aunt Mary in one way or another. If so there was no indication,

that without consulting her. But his spirit, as well as her own, was a trifle ruffled, and her stand about the net should be maintained. She was about to enter the house when, glancing down the road which led up from the woods below she saw Matt coming, part carrying, part dragging something which raised quite a dust as it trailed along. “What, for land’s sake, have you got now?” she queried, as he came through the gate trailing a stretch of chicken wire behind him. She noticed it was close-meshed and pretty badly crumpled up. “I’m goin’ to nail this up to the back fence,” he answered as he busied himself straightening the mess out; “the’s cat tracks all over the garden an’ they get in where the wide slats is, what calls ’em in there I do’ know. You can see ’em all over,” he said, as the two walked down



Yellow Perch

judging from her manner at the conclusion of the meal. Diplomatic relations, however, must be opened. The mind of Matt was busy and fully absorbed by it when he took down the hoe and proceeded to the garden to do some necessary weeding.

Aunt Mary was busy with her household work and perhaps an hour had passed when, glancing through the open window, she saw Matt busily measuring the ground over which the net was drawn, and making sundry marks with the stub of a lead pencil on the handle of his rake. She said nothing and went on with her work, but later, needing his help for something, she called to him without looking out. Receiving no answer she stepped to the door but the lad was nowhere in sight. Then with a firm step and manner she proceeded to the shed where Matt was wont to spend much of his time among his much loved poles and other trappings. He was not there and a glance among his poles told her he had not gone fishing; in fact, he never did

the garden path. And, t r u e enough, the tracks were plainly to be seen in the mellow earth. Aunt Mary viewed with satisfaction, but without comment the neat work the boy had made earlier in the day, hoeing the vegetables, after which the rake had smoothed all. “Now, look there,” she said, as she came to her cherished celery plant, “something’s throwed the net part off. Maybe it’s the wind and she threw the disturbed portion back to its original position. “I must lay something on it, or if it was heavier,” she said, “I think it would be better. I believe a piece of that chicken wire you have dug up from the dump heap will be just the thing.” “T’wont more’n reach the stretch of back fence as it is now without cuttin’ it,” said Matt stoutly; “don’t seem to be no sense in cuttin’ it in two.” Aunt Mary made no reply but began taking measurements of the plot of ground which, had she known it, was quite unnecessary, as she would have found by consulting the pencil marks on the handle of the rake. It was not more than three by five feet, just enough to start the celery plants from the seed for trenching later on. After which she straightened an ample section of the wire netting and with a heavy pair of shears began clipping the cross section. She

soon had a piece evidently to her liking. Proceeding down the path, she took up the net and handed it to Matt without a word and the two laid the wire on, evidently much to the lady's satisfaction and triumph. Matt going to the shed, where, as soon as out of sight, he became convulsed with laughter, bringing first one knee nearly up to his chin then the other and slapping them alternately with his hands as he did so. "Gosh," he said under his breath, "she never once tumbled."

Seldom is it, in the controversies of life that both sides can claim a signal victory. But, each had that piece of chicken wire exactly where each wanted it, and Matt had saved his precious net. Whether or not a flaw of wind had folded back a portion of the net or a deft turn of the hoe handle had prepared it for Aunt Mary's observation history perhaps will never record.

THE mid-day meal was scarcely over when Mr. Woodhull put in appearance. There was an appreciable change in the man. His step was more elastic and firm and a tinge of tan was on his face. Fresh milk and eggs, as well as the country air and sunshine, were working their silent miracle and his soul was glad. His greeting was pleasant and his reception most cordial. Matt placed a rocking chair for him in the shade of the morning-glory vines, which clambered in confusion about the porch. "Well, my boy," he said, "how about the perch? I went down to the pond yesterday and stayed until after dinner time. I had some worms and I caught some grasshoppers but I didn't get any fish." "Shucks," said Matt, "nobody can't do nothing with perch in the middle of the day, 'cept when it's rainin' or real cloudy, 'sides they want fishin' for close up to where some bushes is or close to a bank. When you find where a wash down comes from a field an' the's gravel plenty, where the water goes off real deep, it's the best place ever, though why I do' know. But to make sure to get 'em, take a cloudy day an' late an' then on to dark, usin' worms or minnes, 'nen if you're in the right pond you get 'em. The's two kinds of perch in the pond above the dam. Two meb'e three years ago some men come down here with big cans and turned a lot loose, yellow perch they said. They've got black stripes on 'em run up an' down, not long ways. 'Tother kind, the white ones, allus have been here I guess. I never heard no different." Mr. Woodhull smiled at Matt's quaint manner of description, then said: "I met Mr. Adams this morning and he wants to go with us some time, as he is very fond of this kind of fishing. They've been getting some new lines and hooks at the store. Mr. Adams wanted a line for his reel and I bought this spool. There's enough on it for a good many lines to use on a pole," and he showed the lad his purchase. Matt's eyes went wide open. He had never used any but the

heavier cotton lines and he looked doubtfully at the slender thread-like line. "Might's well use a spider web," he said. "A big pike'd smash it quicker'n scat." "Try it," said his friend. And Matt did try, first by a pull, which he thought sufficient to break it then up across his breast, finally wrapping it around both hands and pulling until the line was deeply imbedded in the flesh, but it did not break. "Gee," he said, "what's it made of? Cuts like a wire." Mr. Woodhull explained that it was made from Irish flax, the best possible material for a line.

Matt's stock of poles underwent a strong inspection that day. Two of the very lightest were selected for use in their coming "perch" excursion. The "tin blickey," as Matt termed the tin pail, had been taken by Aunt Mary for watering the chickens. It had been found



Patiently waiting for something to happen

in the little village dump-heap as a discard and was of good size for a "live bait" pail. Though battered, it did not leak and the dents, as Matt afterward said, were like his freckles, "while they didn't help none, was'nt in nobody's way." The boy was by far too good a judge of matters to raise or even to suggest, a substitute for the pail. The net incident had been a victory and now the least slip in diplomacy in the way of getting his pail when he needed it might be the signal for the verdict, to let that pail stay right where it was.

Such decisions must not be construed as stubbornness on the aunt's part. It was discipline, and keeping her house in order.

A visit to the swamp nearby had resulted in finding what man and boy had agreed would make a proper landing net frame, in the shape of a forked birch. It was cut and smoothly trimmed; the two ends being brought around and secured to a cross section of stick, making a neat oval. While not as perfect as the one seen in the tackle store, still it could

be made effective, they thought, and that was sufficient. Carefully the fly net had been gone over and a section cut which would be ample for their purpose, allowing a proper bag for the retention of fish, once they were taken in.

Matt had sacrificed a stout line for use in whipping the net to the frame and their heads were close together as, seated on the grass, they wove the line, first through the mesh and then around the frame. As a boy, the man had had a love for the great out-doors but now it was taking hold in a different manner. God's sunshine, through woods and meadow, was giving him life. Besides he was fast imbibing the spirit of the healthy country boy whose enthusiasm was contagious. "This birch from the swamps is good and tough," said Mr. Woodhull, as the lashing on process was finished and he was bending

a little here and there on the frame to make it a little more trim in form. "Gosh, yes," returned Matt, "so tough I've wish't mor'n once't it never'd growed. Aunt Mary's handed it to me sometimes a plenty," and looking up both saw that personage regarding their work in a quiet manner, her elbows resting on the fence. Matt grinned a little. Woodhull laughed outright and Aunt Mary said: "I reckon you never got more'n's what's healthy." While never commenting on it, it was a source of pride with her to have the boy in the company of men of clean habits and mind and not seeking the comradeship of coarser characters. While privileged to go almost at will, parts of days, to the pond and creeks, still, an all-day's trip such as was contemplated with the perch was a different matter. It had been decided between the two that Mr. Woodhull was to ask concession in the boy's behalf. The time seemed propitious, and the subject was finally broached. "Land sakes," was the response, "it would seem that two grown men

might know more about such things and not have a slip of a boy toddle along to show 'em, but," and her argument unconsciously carried a note of pride at his accomplishments, "his work must all be done first." Mr. Woodhull was far too diplomatic to argue against any possible point of the aunt's view of the matter other than to show her that the lad's knowledge of fish and their ways was far superior to his own.

Matt sat without a word during the conversation, digging his toe in the ground as was his wont when thoughtful, and, as he afterward said: "If I'd said a word about how I knowed where and when fish was, mos' like she'd said it was owing' to her a bringin' me up." With delight the boy saw Mr. Woodhull fit up the two poles with the fine line which he had brought down and he promised to see that the worms were in proper condition when the great day arrived, which really came on the third one from the day of the making of the landing net.

Matt had met Mr. Adams at the store on the evening before and as it gave

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FOREST AND STREAM

FORTY-EIGHTH YEAR



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THE OBJECT OF THIS JOURNAL WILL BE TO studiously promote a healthful interest in outdoor recreation, and a refined taste for natural objects.
 August 14, 1873.

PURE WATER NEEDED

FOR years now the newspapers have had much to say about the importance of pure food, and legislative bodies have passed many laws, with the alleged purpose of protecting the public against foods that were adulterated or injurious. Yet comparatively little is done to preserve the purity of our waters. It is only occasionally that we hear of disease resulting from the use of impure water or of the prosecution of men who sell milk from cows that have drunk such water. Few things are more important to the well being of Americans than the purity of their drinking water, yet efforts to keep pure the streams from which this water is drawn meet constant opposition or hopeless inertia. Twenty years ago the late Wm. Austin Wadsworth, then President of the New York Forest, Fish and Game Commission, wrote about this, words forceful enough to have stirred even a New York Legislature. He said:

"This is a matter of vital importance and not to be dismissed as affecting only the lives of some fishes, the pleasure of some anglers, or the dividends of some pulp mills. We are a water drinking people, and we are allowing every brook to be defiled. Nature provides that they should be kept pure by animals which feed on the dead matters which fall into them, but the chemicals with which they are polluted can destroy all forms of life, so that every beast which dies on the mountain will soon roll down into our reservoirs, pickled in acids which no fish or bacteria can touch and live. It is not necessary to destroy or hamper any industry in order to prevent pollution of water courses. What is really needed is to check the criminal selfishness of those who would rather poison their fellow citizens with their offal than to spend a few dollars to take care of it."

Now—after twenty years—the New York Legislature has passed a bill appropriating \$10,000 to enable the State Conservation Commission to in-

vestigate the vital subject of stream pollution. It is a matter of course that cities, towns, mills, factories and foundries turn their waste into the nearest stream. This is done to save trouble and expense and with no thought whatever of the possible consequences to the public. It is the easiest way.

Streams polluted by receiving the waste of towns or of factories cannot furnish water fit for use by human beings. The absence of fish from many such streams shows this. If the water is unfit for fish to live in, it cannot be fit for men to drink. Hardly an adult man but can remember when the waters of the lower courses of rivers with which he is familiar were available either for drinking, for bathing or for fishing, but today—in countries of abundant settlement, frequent factories and large towns—such water conditions do not prevail.

Not so many years ago the shad fishing industry in the Hudson River was of great economic importance, and every spring and summer vast quantities of this toothsome fish were caught during their run up stream toward their spawning ground; but, at the present day, the shad scarcely enter that river. For many, many miles from its mouth it has become a vast sewer, and today we even read that the use of ice taken from its upper reaches is dangerous, because frozen from polluted water.

Is it not worth the while of the American people seriously to ponder this matter and matters of kindred significance? The abuse will be stopped when the public wishes it stopped and not before. Yet people have been writing about this for a long time!

Many years ago a number of earnest and somewhat persistent men devoted much time to writing public exhortations urging the importance of forest preservation. This preaching went on for a long time and their sermons seemed to make no impression on the public—there were no apparent results. But suddenly, and without warning, results appeared, and that fine old soldier, Gen. John W. Noble, then Secretary of the Interior, set aside the first public forest reservation and founded our present system.

It is trite to say that almost anything can be accomplished by sticking to it. The work of fighting this crime of stream pollution is one of the tasks that ought to be stuck to.

We have just passed through a great war and problems of enormous difficulty crowd about us on every hand, but to be in a condition to face these problems, and still more to solve them, we must do everything in our power to guard the public health. Nothing is more important to such preservation than the purity of the water that we drink.

THE SPORTSMAN AND THE RABBIT

NO animal sought as game, for sport or food, has brought about more discussion or legislative action in the eastern states than the common gray rabbit or cottontail. Why? Because the economic importance of this animal is not realized by either the sportsman, meat hunter or the farmer.

Consider first the farmer's side of the question. He is entitled to it, being tax payer on the territory the rabbit frequents. Rabbits may damage his young orchards by gnawing the bark and even girdling the trees. Some of his field crops, especially cabbage, may also be selected as a luxury to which

bunny thinks he is justly entitled for services rendered. But in the majority of cases recited before legislative committees to reduce the protection now given the rabbit, it is the smaller rodents, especially wood and field mice, that are really responsible for the damage to the farmer's trees.

If rabbits are abundant and a nuisance on an occasional New England farm, their market value as meat, and the taking of them as a recreation for the farmer's boy or assistants will compensate for considerable damage.

We should consider, however, a most important point for the rabbit's protection, and that is the fact that they are the natural and preferred food of foxes, weasels and other carnivorous animals, and also of the larger hawks and owls. An abundance of rabbits saves the lives of thousands of insectivorous birds of inestimable value to the farmer and to all of us, to protect crops, woodlands and even human life itself. Likewise the farm poultry is not as likely to be disturbed by natural enemies if rabbits are common in pasture and woodland. During the greater part of the year, and in fact except on rare occasions, the vegetation devoured by the wild rabbit is of little economic value to the farmer. Why, then, is he so prejudiced against this animal?

There is absolutely no danger of the rabbit ever becoming a pest in the thickly settled eastern States. Parasitic enemies and disease do their part if cottontails become too numerous in local sections, and the law of the survival of the fittest prevents the species from deteriorating. There is a theory among hunters that a periodical disease affects the rabbits every seven years, and any sudden disappearance of this animal from sections where it was common the season before, is laid to this cause.

During the six weeks open season of 1918 on upland game birds in Connecticut, hunters in all parts of the state reported a scarcity of ruffed grouse, and various ideas were offered as to the cause. The shooting had been fairly good during the fall of 1917, but as many a hunter handled the army rifle rather than the smooth bore that season, the birds were not all shot off. Most of those who found time for an occasional day with the shotgun, were too busy after the season closed to give a thought as to what was going on in the woods. The truth is that a scarcity of rabbits was indirectly responsible for the loss of the grouse.

A message had been received from Canada early in the winter of 1917-18 to be on the watch for a flight of horned owls and goshawks that were moving southward because of a dearth of rabbits, their common food, in the north. These birds were reported as more abundant in southern New England than for many years. Taxidermists were working on them everywhere, and on one pheasant farm in Connecticut, ninety great horned owls and eighty-four goshawks were killed during that severe winter. Where rabbits or other rodents were unobtainable these birds would find the ruffed grouse the easiest victim, especially at its roosting place on the cedars along the edges of woodlands. Pheasants and quail, keeping more to the thick growths in lowlands and swamps were apparently less disturbed. Many of these larger birds of prey returned again this past winter and the result of these invasions is that in many a piece of woods that we tramped through this spring, the drumming of the grouse is not to be heard. Also an immense area of brush country is entirely destitute of rabbits. What the loss of the smaller and insectivorous birds amounts to is

difficult to estimate. Certainly most of them are far easier for the hawks, owls and foxes to obtain, than are the grouse. Naturally some will say to put a bounty on these marauders, kill them off and save our useful birds and game. But if this is done we will be overrun with field mice and many other small rodents. These will cause an immense loss in agricultural products and also destroy the eggs and young of the ground-nesting birds we wish to protect.

A synopsis of these facts prove but one thing, and that is, that the rabbit is a valuable resource in our eastern states. The demand for it for food and game is increasing, but its great economic importance is to safeguard the lives of our useful birds.

INTERNATIONAL ASSOCIATION OF GAME COMMISSIONERS

AT a joint meeting of the Executive Committees of the International Association of Game, Fish and Conservation Commissioners, and the American Fisheries Society, held in Washington, D. C., June 3, it was decided to be for the best interests of both societies that the next annual convention be held in Louisville, Kentucky, the International Association of Game, Fish and Conservation Commissioners, to be held on October 6 and 7, and the American Fisheries Society on October 8, 9, and 10.

On account of the central location these conventions will undoubtedly attract large and representative delegations from all parts of the country and private game and fish breeders, commercial fishing interests, officials, anglers and sportsmen should all be largely represented.

SIGNS OF APPROACHING AUTUMN

CLEAR skies, cool breezes, straggling flocks of robins crossing the sky, unite to remind us that autumn is at hand. Families of bluebirds not long from the nest, follow their parents from tree to tree and take their first lessons in searching for food. Across the open lots kingbirds straggle one after another, perching now and then on the top of a conical cedar or alighting on the stem of a goldenrod, which, too heavily weighted, swings down to earth. Groups of young crows, inexperienced and so unafraid, permit the stroller in the fields to approach close to them and then suddenly discovering his presence, fly away in noisy alarm.

The stubbles, a few weeks ago shining golden in the sun, have changed color, for they are hidden by a growth of tall weeds. Grass is starting anew in the mowed hay meadows; on the tasseled corn the ears have set and are growing large; weeds hide the fences or fight with the crops for possession of the cultivated fields. All vegetation is now at its fullest luxuriance. Where drouth prevails the leaves are dusty, dry and turning brown, but where there has been rain, the clean washed foliage is dark and strong looking.

The woodcock, which for weeks have been hidden away in the thickest underbrush of the hillside renewing their plumage, will now soon come back to the swamps of their nativity. The prairie chickens and ruffed grouse by this time are well grown and the quail chicks can fly well.

Already the blackbirds are flocking, barn swallows and sand martins hold daily meetings along the roadside, perching by hundreds on the telegraph wires. Before we know it, the migration will have begun again and autumn will be upon us once more.



POLING THE TIDE FLATS FOR RAIL

SPORT WITH THE SMALL BORE SHOTGUN AMONG THE REEDS AND RUSHES
SEARCHING FOR THIS MYSTERIOUS LITTLE DWELLER OF THE MARSHLANDS

By EDWARD RUSSELL WILBUR

PERHAPS of all our land or water-fowl none afford our sportsmen more agreeable amusement or a more delicious repast than the little bird that is the subject of our sketch. Rail shooting is an amusement lasting only two to three hours in the day for four or five weeks in each year, but as it occurs in the most agreeable and temperate of our seasons it is attended with little or no fatigue to the gunner and is pursued in such places as the birds frequent with great eagerness and enthusiasm.

Under the migratory game laws, the open season begins on or about September 1, in most of the states. There is a bag limit which is very proper as formerly they were slaughtered in vast numbers and were in danger of extermination.

The Rail or Sora belongs to a genus of birds of which about thirty different species are enumerated by naturalists over almost every region of the habitable parts of the earth. The common species in the order named are the Sora (*Rallus Carolinus*), the Clapper Rail (*Rallus Crepitans*), the Virginia Rail (*Rallus Virginianus*), and (*Rallus Elegans*) the King Rail, the handsomest.

It breeds from Central British Columbia and the Gulf of St. Lawrence, south to California, Utah, Colorado, Kansas, Illinois, and New Jersey and winters south, down through Central America to Venezuela and Peru.

It has been found and identified in Bermuda, Greenland and England. Those who have flushed this little bird and watched his struggle to rise in the reeds and the painfully uncertain effort to sustain himself for any distance by flight, his migration from one locality to another, reached only across long water and land stretches, know him almost as a real mystery.

The natural history of the Rail is to most of our sportsmen involved in profound and inexplicable vagueness. It comes from they know not where; no one can detect the first moment of its arrival. All at once the reedy shores and grassy marshes of our large rivers and bays swarm with them, thousands being sometime found within the space of a few acres.

I remember, when a boy, fishing on a meadow brook on Long Island and noticing dozens of little birds running down to the stream edge on the muddy banks.

I had never seen Rail, and took my father out the next day to identify them. He called them Rail, and had never known that they were there. We could not make them fly because they ran back in the meadow grass where the boat could not go, so we contented ourselves with bagging them as they ran down on the flats at the water's edge.

We had several delicious dishes for the table, for they were very fat. Rail, when forced to fly, seem to fly so feebly in such short, fluttering flights amongst the reeds as to make it seem almost impossible for them to cover long distances by flight. At the first smart frost they suddenly disappear as if they had never been. Many have heard their common note of "crek crek" from sunset to a late hour at night, yet have never seen a bird, so closely do they lie concealed in the grass and reeds of almost every river bank and marsh in the country.

Jumping from a duck blind one time, on the shores of Shinnecock Bay, a Rail fluttered up from the salt meadow grass at my feet. Killing the bird I showed it to my companion, a gunner of some years' experience, who told me he had never seen one before, although he lived



An old photograph of a rail bird hunter being pushed through grass and rice rushes. Note the muzzle loading gun

on the banks of the Connecticut River where Rail congregate in thousands. Early in August when the reeds and wild rice attain their full growth and ripen, the Rail resort to these localities in great numbers to feed on the seeds of these plants. On their first arrival they are generally thin in flesh, but on this food they rapidly fatten and by the opening of the season, about September 1, they are in excellent condition.

ONE should start for the shooting grounds about two hours before high water, as it is only at high water that a boat can be pushed successfully over the reeds and rushes, thus forcing the Rail to fly.

This pushing a heavy boat over ground covered with grass and rice rushes, where at times there are but a few inches of water, is strenuous work. The pusher must keep the boat moving to force the birds to fly, as they are great runners and will run away from the boat if not crowded.

The pusher calls "mark" as each bird rises in its short, fluttering flight, usually one bird flushes at a time, but often a

pair rise and the gunner must shoot quickly as they only make short flights, dropping into the reeds to run again. The pusher marks the killed birds by tossing out blocks of wood, painted white, as near as possible to where the birds have fallen and such is their skill that often, after having four or five down, on retrieving they have found the wooden markers lying across the birds.

Were it not for some sort of a marker, many birds would be lost, as the thousands of acres of rice and reeds bear no distinguishing marks of location.

Once in a while, a King Rail or a Clapper Rail flushes, and often a Mallard or a Black duck breaks the cover with a loud quacking.

At high water the shooting is fast and furious, but as the tide lowers, the boat is forced back off the flats and the shooting is over for that tide.

Wounded birds dive and cling to the sunken reeds and grass and are seldom retrieved. The constant "Kuk, kuk, kuk" of the hundreds of Rail are heard as they run about under the rice cover, but the little bird is a wonderful vantriloquist and it is almost impossible to lo-

cate one by listening to his plaintive call.

As the bird flutters along, after rising in a short uncertain flight, the shooting is very easy, but as the bird must be killed at very short distances, small charges of powder and shot should be used. The ideal gun is a little 28-gauge and the load $1\frac{3}{4}$ drams powder, $\frac{5}{8}$ -ounce No. 10 shot or 20-gauge gun, 2 drams powder, $\frac{3}{4}$ -ounce shot. With these little guns the shooting is ideal and a fair shot should have no difficulty in getting a high percentage of the birds shot at. As a sport for women shooters, nothing could afford a better chance for them to get some good practice and many are enthusiastic over the chances.

As the open season is usually during the warm days of September, light canvas clothing is sufficient, and as one is often required to step over the side of the boat, or stand on his feet during some of the shooting in order to keep dry and prevent slipping, light rubber boots are best for a foot covering.

The noted Rail grounds are those on the James, Delaware, Connecticut and Schuylkill Rivers, but there is scarcely a marsh that at times does not hold them.

FURTHER NOTES ON SHORE BIRDS

THE BLACKBREAST AND THE TURNSTONE PARALLEL RATHER CLOSELY IN HABITAT, OCCURRENCE AND NUMBERS BUT THE KILLDEER HAS MANY DIVERGENT HABITS

By JOHN T. NICHOLS

THE Blackbreast Plover is one of the largest and finest Shore-Birds which the gunner still finds in fair numbers along our coast-wise meadows. Perhaps he has been lying a full half-hour some August morning to windward of the decoys, sheltered by a thin screen of reeds or bushes with his back to the southwest breeze, and entertained by the chattering wrens and skulking sparrows, or watching the swallows and the occasional flock of little "oxeyes" which shoots past. A big Blue Heron crosses his line of vision, flapping slowly and majestically. Then his ear catches the cry of a Blackbreast, faint in the east. Instantly alert, he responds! The cry grows louder and clearer, a ringing, musical *pée-oo-ee*, and he can presently see a bird high in air, flying swiftly and steadily. It circles round and round his "rig," responding to his every whistle, its black lower parts flashing in the newly-risen

sun; but it requires all his skill to bring it for the necessary instant within range of his gun. Less frequently a Blackbreast will appear among the decoys, silently and unexpectedly, as though from nowhere.

This species is very largely a bird of

the sand-flats and therefore found most abundantly about inlets to bays. It alights frequently, however, on both meadows and ocean beach. It is abundant in spring and one of the latest birds to move north, frequently lingering into June; and southbound birds, especially, flocks of young, are seen north of their winter grounds late in the fall. It can be confused only with the Golden Plover, than which it is a little larger and decidedly paler above in color. Young of both species, and late fall and winter adults, lack the black under parts, but the Blackbreast always has a diagnostic black patch under the wing. The Golden Plover has different habits, often frequenting upland pastures, as does the Killdeer. In the east the Golden Plover was always rare in spring and for a number of years has been rare at any time, no matter what the season.



Courtesy of the American Museum of Natural History

A Killdeer Plover sitting on her nest

(CONTINUED ON
PAGE 498)



AN OUTDOORMAN'S REFRIGERATOR

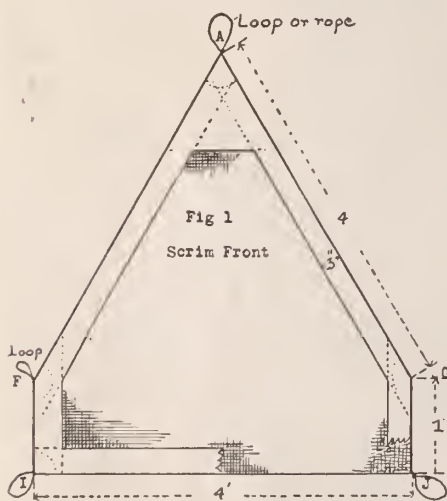
MOST of us who take to camping as the pastime supreme have at various times encountered stubborn problems. Of these, one of the most aggravating is to find that ants and bugs by the multitude have made a trysting place in the unused food.

Or again, find during the heat of the day that the butter melts, the bread dries crisp, bacon and other materials have softened to an unsavory pulp.

During the twenty-three years of my experience as an ardent outdoorsman I have experimented with about every sort of contrivance that any one has suggested, ranging the entire gamut from tin receptacles to holes in the ground. Some of the things I have found useful sometimes when conditions were right, but tide, weather and topographical elements have been encountered in my sportsman's life that precluded the usage of any one device or scheme all the time.

Unquestionably the most popular method of protecting foodstuffs is to make a cache in the earth. This has many disadvantages, mainly those of moisture and earth bugs—the danger of river or stream overflow, or the wetting it might get from a summertime cloud-burst. The average meat safe that will be secure makes itself prohibitive on account of weight and, secondarily, owing to its purchase cost.

As in other kinks which I happened to



stumble on, two primal features are always uppermost in my mind—the elimination of cost and weight. I suggest for the benefit of campers who think as I do, a simple, light, and practically costless—an outdoorsman's refrigerator.

A slatted oblong wooden bushel measure, the top of an empty orange or lemon box, a small strip of leather or canvas, some stout cord, or small rope and the materials are at hand for what I consider by long experience from usage the very best article of its kind that has been suggested.

The bushel measure can be secured without cost from almost any produce or grocery firm. These boxes are nothing more than a series of one-inch high slats placed one upon the other, the ends being fastened by a long wire running through them from top to bottom.

Turn the box on its side, nail two wooden cleats from front to back, one

WE are depending upon the friends and admirers of our old correspondent Nessmuk to make this department worthy of his name. No man knew the woods better than Nessmuk or wrote of them with quainter charm. Many of his practical ideas on camping and "going light" have been adopted by the United States Army; his canoe has been preserved in the Smithsonian Institution; and we hope that all good woodsmen will contribute to this department their Hunts and Kinks and trail-tested contrivances.—[EDITORS.]

on each side about the mid section. This is to support the shelf. For the shelf itself cut through the top of an orange box, about one inch short of center. The shorter end makes the shelf and the other, held in place by leather or canvas hinges, supplies the top covering for the box.

Now turn the box on its bottom, push the shelf against the side away from the cleats and in the open space pack your rations for the week-end trip. Take two pieces of stout cord of the right length, knot each end, then, just above the knot on each lower corner, drive a staple; another in the middle over the cord and again one on each corner. This gives you four loose ends to fasten the box to a tree limb.

Where gnats or bugs or both are plentiful, and they usually are, it is well to line the box with cheese cloth or mosquito bar. To keep away ants and vermin, take one sheet of ordinary fly paper, cut it into four sections and twist one about each of the ropes about six to ten inches above the top of the box.

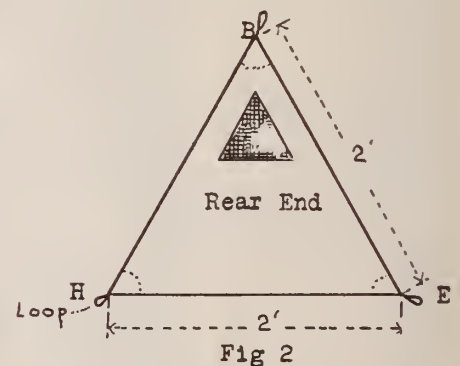
If a tree limb is not convenient, cut four sticks with forks, push these into the ground, loop the rope ends and place them over the forks. In this case put the fly paper over the sticks between the box and the ground.

In a country where marauding animals—bears, wolves, etc., are apt to make inroads on the larder, try this: select two trees near each other, too small for a bear to climb, yet strong enough to hold the weight of the box. Bend the tops, fasten a rope between the two and about six feet above ground lash the box to this suspension rope, keeping the receptacle equi-distant between the trees, then peel the bark on both up to the bottom of the box.

In the bottom of the refrigerator fold a piece of brown or dark green oil cloth at night. Tie this around the box leaving both ends open and the food is amply protected against storm and moisture. The elementary knowledge of camp craft of course suggests that salt be kept in a wooden box.

Hanging as it does off the ground and shaded by leaves or limbs, with a free circulation of air, this contrivance will keep the food cool, fresh and dry and in another manner serve the very useful purpose of acting as a grub box for the trip to camp, as the wood is made of tough material jointed with heavy iron wire. It will stand up under terrifically hard usage—and it costs nothing to make.

FRANK WINCH.



A BEACH TENT

FOR the benefit of those who are beginning to take an interest in beach camping I will describe a little tent that is a modification of several that I have made and tried during the past few seasons. It is good in several respects, I think. It requires no long poles (you won't find them on the beach) it requires very few pegs, and is water and



mosquito proof. It will withstand the worst gale that ever blew up the beach; does not exceed 4½ pounds in weight and rolls up into a bundle about 14 inches long by 5 inches through.

The material is unbleached muslin, dyed dark green with 10 cents worth of Putnam dyes, before cutting up. It takes about 8 yards of material, 1¼ yards wide. A card of snap fasteners, for snapping the mosquito bar along one side, may be purchased, though I sewed the scrim all around, and a roll or two of inch wide tape for loops completes the list of necessities.

In construction, cut the goods so as to form a rectangle (Fig. 5) EIHJ, about seven by seven, although you must allow about 2 or 3 inches for seams. The rectangle completed (be sure to have seams running up and down, as shown by dotted lines), mark a line AB, 2 feet from E on the side EJ to a point B, 2 feet from H on the side IH. Cut along this line. Now reverse the piece EIBA so as to put end IB where end AE is in the sketch. Now the line AB will

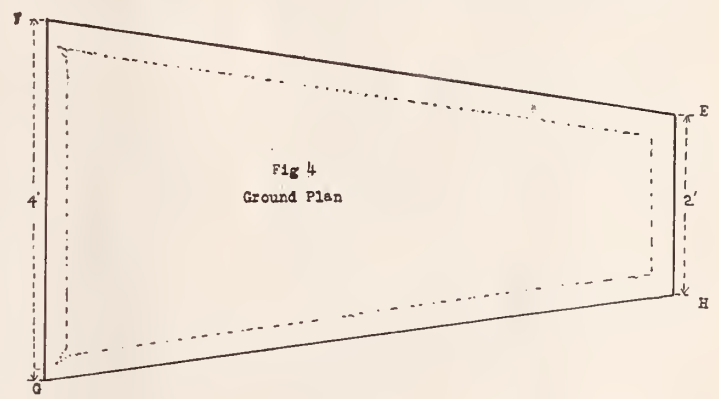
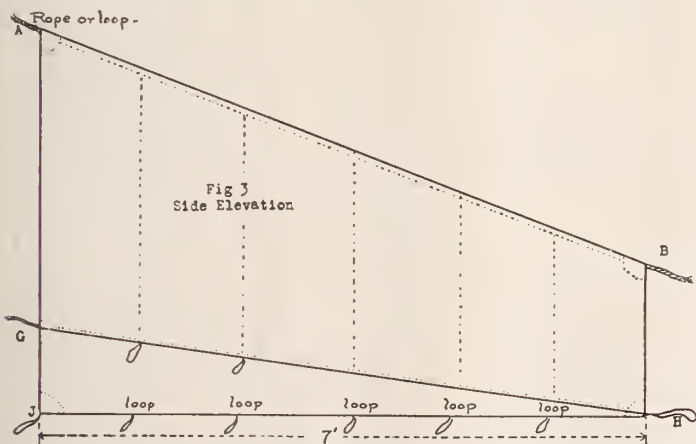
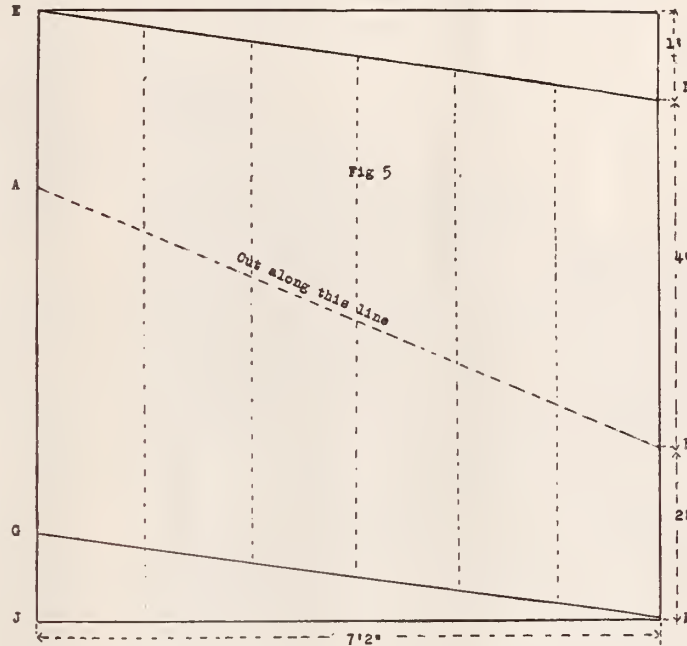
EIF fall straight down, 1 foot in front running to a point in the rear. In my last season's tent these side walls did not appear, but I like a small wall at the head end otherwise the slant of the roof touches the head, unless one is

make it about a foot longer than the height of the tent. This extra length may be tucked in under the sill IJ when retiring and sand will hold it flat. If desired, a storm curtain covering the front may be made to snap along, AF and AG, although I have never found it necessary.

There is no ground cloth, as on the sands this is not needed, but a sod cloth or strip of muslin 6 inches wide is sewn all around the lower edge of the tent and turns in, to pile sand on, as shown by the dotted lines in Fig. 4. This, while not actually necessary, helps to keep the tent fly-proof. This practically covers the construction of this little tent which fills the necessary requirements as to strength, lightness and cheapness.

It has plenty of room for one man and seems to me to solve the shelter problem for the hiker. It is very quickly erected, needs only two short poles that may be picked up anywhere along the beach or split from a board.

As the pitch of the tent is steep and the muslin of close weave I have not found it



be the ridge of the tent. Sew this running in a rope or an inch wide linen tape, leaving loops at the ends to tie the tent ropes to.

The little end of the tent, as shown (Fig. 2), is merely a triangle 2 feet on a side with a little window of scrim cut in for ventilation. This end should next be sewn in and the seams turned in.

The front (Fig. 1) AFG is also a triangle, 4 feet on each side and from F and G the little side walls GJH and

plumb in the middle of the tent.

Cut from whatever material is left enough to make a long piece about 3 inches wide to sew all around the front end, as shown in Fig. 1—the lower piece 4 feet long. This will give the correct ground plan when the tent is staked out, as shown in Fig. 4. A side elevation is shown in Fig. 3.

The scrim mosquito bar is sewn in the front under the 3-inch strips of muslin. Allow it to be very loose and

necessary to waterproof it, but if desired it can be done with a liquid that may be found in most sporting-goods houses at a cost of about sixty cents and will add about ¼ of a pound to the tent's weight.

With this little tent with you on your hike along the beach you can camp in perfect comfort and make the days and nights you spend by the sounding sea a present joy and a happy memory.

A. F. WESTERVELT, New York.

FROM ANOTHER PRIZE WINNER IN FOREST AND STREAM'S FISHING CONTEST

To the Editor of FOREST AND STREAM:

IT was Sunday, fishing signs of the Zodiac were excellent, "moon in the dark," a slight breeze from the south causing a little ripple wave across the lake, which reminded me of the old adage, "when the wind is in the south it blows the bait into the fish's mouth." All was propitious for a great day's casting, as my friend, Mr. Hord, and I pushed out from the bank on Medina Lake. I had fastened on a Tango No. 6, and at the second cast caught a two-pound fryer, much to the chagrin of my friend who as yet had not received a strike. First honor for me. I continued to get strikes and land small ones, and as my friend had not as yet had a strike, I suggested that we run the boat over to Plum Creek, and I would lend him a Tango. I always carried three or four, and usually lost one or two in the close undergrowth of the lake, every trip, for as I told him, I did not wish to catch all of them, and I said I would show him where the granddaddies lived. With the understanding that I was doing *him* a favor by taking him there, I said: "I don't usually take anyone here with me, the fish are too large. I know one man who had a weak heart and landed an eight-pounder here and we had to take him back to land, it was too much for him."

We ran over to Plum Creek and were possibly 100 yards from shore, water about fifty feet deep at the boat edge. I made a cast or two without results. I remarked to Mr. Hord: "See those two tree tops sticking up out of the water over there? That little open stretch about ten feet wide, about 100 feet away? Well, watch your daddy come out of there." I cast well over and beyond the little lane of water and had probably retrieved the bait twenty feet, or less, past the tree tops, when bing! "Snagged again," I thought. No, it's a strike, pretty weak though, little line to him, might weigh three or four pounds.

Then a heavy set of the hook and, "Say, Hord," I gasped, "he is a pretty good one; comes in nice though, gosh! look! he wants it, doesn't he? Well, better let him have it, I guess, alright ol' boy, now go to it. Got plenty open water here, you know. That's about enough, ol' boy, now this way." Ten, twenty, thirty feet he was reeled in, then: "Oh, Lord! look Hord, he will weigh most eight pounds."

He leaped out of the water and shook his grizzled head in a manner that any tarpon might envy. Now, that darn fish has just got to go down again, that's all; must let him go or break my four-

LETTERS, QUESTIONS AND ANSWERS

ounce rod. Then out and up and out. I know he is trying to get all my line, and he almost did, too. Can some one tell me this: Why is it that a fish will not take the last few feet of your line, when if they knew that ten feet more would mean freedom, what force compels them to stop and turn? Surely, I say, they have this to learn to their advantage. However, I succeeded in getting him within about thirty feet of the boat, when up he went again, but I had him well under control now, and when he tried for another run, I checked him and brought him close up to the boat. As I live to tell the tale, that pesky bass actually rammed the metal boat with his head, probably in his efforts to remove the bait. First time that ever happened with me. I circled him back and forth in figure eights till I could slip two fingers into his gills and got him into the boat. Hord got the scales and said: "Bet he weighs around nine pounds at least." I hung him on the scale and saw the indicator pass nine, then ten pounds, then that blamed scale went from ten to thirteen pounds. I wasn't nervous, you understand, nor excited, just plain anxious about that fish. "Here, Hord, you tell me how much he weighs, I am tired trying to read it," I said. Hord announces, "10 and $\frac{3}{4}$ pounds to a hair." I think he should have said: "To a scale." "Gosh, Hord, he is a daddy, isn't he?" Off came Hord's hat and that meant something, when Hord takes his hat off.

He measured 19 inches in circumference, 24 inches from tip to tip—the largest fish I have ever seen taken from Medina Lake in my six years' experience there. I have *my* doubts about any bigger one ever having been brought to the wharf. Hord continued to cast and try his luck, but I did not, it was enough for one day for me. I have the fish mounted, and he is a beautiful specimen. The taxidermist got all the meat.

Medina Lake is formed by a huge dam, forming the third side of an enormous triangle, in the natural canyon walls of the Medina River. It averages three miles wide, thirty miles long and is of various depths up to 175 feet. It is but an hour's run from San Antonio by auto, and there are always plenty of perch, bream, bass, crappie and channel cat, a few suckers, turtles, eels, etc. There is

good hunting for deer right at the lake side, also large squirrels, both blue and bob-white quail, and for duck shooting it is not excelled by any fresh water lake.

GEORGE C. SHUPEE, Texas.

SALT WATER FISHING

To the Editor of FOREST AND STREAM:

HAVING just completed seven months of salt water fishing it occurs to me that it might interest the angling fraternity to hear of some of my experiences and listen to some of my conclusions concerning this much-vaunted branch of the sport.

I have devoted considerable time, study, expense and whatever mechanical expertness the Lord gave me to the subject and I believe I have fished it dry. I have diligently read the literature on sea fishing—all the musty old British tomes and our more modern ones—and I have tried out every conceivable tackle and method, from "whiffing" for sea bass and "paternostering" for white perch to surf casting for shark. And the outstanding feature of the retrospect is that, so far as *fishing* is concerned, it is a large, not to say monumental, waste of time.

I have read charming dissertations on surf casting, in which the author decants on the glories of the rich Italian sunsets, the colorful motion of the restless sea and the age-old mystery of the shifting sands and with all his rhapsodies I can heartily agree, but when the element of *fishing* is introduced it is the purest bunk.

I have been surf casting from Barnegat to Cape May, alone and in the company of experts, with the net result of a few dog sharks, a lonesome channel bass unfit for food, aching muscles and rheumatic joints. As an excuse to get outdoors and "commune with nature" it is excellent, but it is a misnomer to call it *fishing*.

The only excitement in ocean fishing is going after bluefish or weakfish. These carnivora might better be hunted with a Winchester rather than a hand line. One joins a bunch of smelly proletariat on a fishing launch and wanders eighteen to forty miles out to sea. A lot of putrescent menhaden is dumped overboard for "chum" and presently one is in a maelstrom of tangled lines, slippery, flopping fish and perspiring, swearing men. One works his utmost while the run lasts and that is all there is to it. It is comparable to stopping a leak in a water pipe with the bare hands so far as the "contemplative man's recreation" is concerned.

Some of our sporting writers have turned out reams on Santa Catalina and the Leaping Tuna. They have de-

ELK IN PENNSYLVANIA

To the Editor of FOREST AND STREAM:

I AM mailing to you a kodak photo taken by Mr. Dick Lane, of Ebensburg, Pa. This, I think, is a remarkable picture to have been taken in Pennsylvania of two wild elk. Elk were introduced into this state several years ago.

Mr. Lane is a photographer and never travels without a camera. On this Sunday a couple of weeks ago he and his wife were out for a drive in their auto and just as they came to this bridge, located between Cresson, Pa., and Duncansville, on the William Penn Highway, not far from the Prince Gallitzin spring, he saw one of these elk just coming up over the bank onto the bridge. Of course he got ready to shoot him with the camera, but before he was ready the

more game in one day than it is possible to meet in a month in this country and my letter was not intended so much for those who use the cylinder scatter gun as for those who use the fullest possible choke at the trap, at either live or clay birds or for the duck hunter.

It would be well nigh impossible to find the exact centre of a charge of shot from a cylinder bored gun at forty or fifty yards.

Is "Gaucho" aware that all double rifles, as we make them in England are wedged apart at the muzzles and that the barrels are laid to centre in a six inch bull's eye at 100 yards? Why?

If the barrels of such a rifle were laid as shot barrels are laid, where does he think they would shoot?

I would suggest to him to try the ex-

veloped a cult which seems to me the acme of snobbishness. The Catalina fisherman does not admit that there is any sport other than getting tied to a submerged leviathan and being dragged all over the ocean for seven hours. Why not go out in the black lot, make fast a line to a yearling calf and let him drag one about for a few hours? The result would be the same and the danger of broken bones vastly greater. I have never indulged in this kind of fishing—and never will.

One fishes the inlets and bays of the Jersey Coast and the catch consists principally of plaice (incorrectly called flounders) and a few other ugly, ungainly monstrosities of the croaker variety. And if one fishes from piers or near wrecks he catches tautog—a homely little brute, few, and far from being a fighting person.

I have fished the estuaries of the Chesapeake from the Susquehanna to the Potomac and caught a number of white perch and a very occasional striped bass. The latter fish is a bass and entitled to the respect and admiration due his family. But he is woefully scarce and very small. One gets a duck or two in these waters, but the fishing is utterly unimportant. This is an iconoclastic statement but perfectly accurate.

I might go into greater detail, but I think the foregoing will show the inland fisherman that he need not envy his brother of the coast. The rumored vast number of every sea fish that swims is a myth, and very few of those caught are worth going after. The only redeeming features of salt water fishing are its accessibility and cheapness. I am not quite in sympathy with those gentlemen who write glowing, illustrated accounts of the excitement and exhilarating sport involved in landing huge masses of useless and ugly flesh. One may fish for weeks before he gets a tarpon or a channel bass; I know—I had it happen to me, and the stuff he does get is trivial and the time used is wasted.

To me, fishing is something more than collecting a large number of the finny tribe at hectic speed and at the expenditure of great exertion. I much prefer to drop a fly in a quiet, reedy lake along toward evening and spend five minutes arguing with about three pounds of black bass. One has time to study the game and use a little finesse and strategy. Any lubber can drop a dead spearing into a school of bluefish and yank out a denizen of the deep, but that same lubber could not get a rise out of the wary old gentleman of the quiet, sweet water.

I've tried 'em all this side of the Rockies and am well content to make a yearly pilgrimage to the northern balsams and the rushing mountain streams. The ocean is supreme in its grandeur and its mystery, and I shall hope always to spend a few weeks of the year near it, but when I go a-fishing I shall trek to the home of the aristocrat of the waters—where one gets not only the beauty and restfulness of the quiet places among the limpid lakes and whispering pines, but also, occasionally, a real fish.

W. T., Maryland.



Photograph of two wild elk taken on the William Penn Highway, Pennsylvania.

other one showed up also and he now has a picture he values highly.

Prospects for grouse look good now for next fall unless they were hatched too early and the wet weather during May was too much for them.

JEFF EVANS, Penn.

SHOT GUN ACCURACY

To the Editor of FOREST AND STREAM:

YOUR anonymous correspondent "Gaucho," in his anxiety to champion the double-barreled shotgun, which most of us consider as one of our best friends, has entirely lost sight of the object of my letter, and as there is hardly anything that I can add to my letter, my experiments having been carefully made and fully described, I can only now try to smoothe the ruffled feathers of your Patagonian friend, who perhaps has had more experience with bolas.

I, too, have shot continuously for quite forty years with the double-gun as at present in general use, principally grouse and partridge driving in England and Scotland where one is likely to shoot at

periment of placing two nails in a board one and a quarter inches apart, and twenty-eight inches from them place two more at seven-eighths of an inch apart, these figures representing respectively the distance apart of the primers and the centres of the muzzles of a 28-inch barrel.

Attach two strings to the nails at the breach and stretch them to touch those at the muzzles and note where they cross, and if these strings do not represent the centres of the charges of a shotgun or the bullets of a rifle, perhaps "Gaucho" will be good enough to explain to me why they do not?

He acknowledges that some shotguns do shoot off centre, but he does not give the reason.

To his statement that I never have tried a first-class accurate shooter, I would reply that I have, or have had guns by Purdey, Lang, Grant, Boss, Churchill, Westley-Richards and others, and with some of these my experiments were made. He may have heard of some of these English makers and even allow

that they have turned out good guns.

Why also is my suggestion of "casting off" the stock to rectify the shooting of a right barrel which shoots off centre, "too grotesque to merit serious consideration?" Surely one who has tried out these points can be allowed to give the results of his experiments for the benefit of fellow sportsmen, without being jumped all over by some one who has never even heard of such things.

As to the "Under and Over" system, I have known and handled many of these guns in the past, ever since they originated, I believe in Belgium, where I saw them many years ago, long before I ever saw one in England; but I have never fired a shot from one.

With the last paragraph in "Gaucho's" letter, I entirely agree, *viz.*, that if my idea is to recommend the "Under and Over" system, a better and more straightforward method of doing so could easily be found.

It is preferable to try the cooling effect of ice on one's head before coming out with the statement that such cooling effect is nil!

L. MITCHELL-HENRY, New York.

A BABY PORCUPINE

To the Editor of FOREST AND STREAM:

ONE of the few baby porcupines ever born in captivity made its appearance recently at the California State Game Farm.

As a rule porcupines are not considered if the question of pets is under discussion, but when a pair of the rodents with erectile spines was brought to the Farm, Ruth, the daughter of the Superintendent, determined to tame them as she had tamed everything else on the place from Billy the buck that as protector of the herd of farm deer, permits no intrusion on the privacy of his charges, to Pete the quail who is so well behaved as to be allowed once in a while a place at the family table where he will hop from plate to plate, daintily picking up a bit here and a crumb there, but always conducting himself as a perfect gentleman should.

Porcupines are not particularly lovable animals. They are sulky, sneaking and inquisitive bunches of quills and Ruth had much difficulty in making these do anything, but try to stick her full of their little barbed spears. Her first step was to induce them to nibble at a piece of apple on the end of a stick. Then they learned to know her, to watch for her coming and finally to stand erect on their hind legs and beg for something to eat as will a well-trained dog.

One day the baby came, a little rat of a fellow, but with the same protection of a perfect cheval-de-frise of quills as had his parents. Now comes the strange part of it. All animals, wild ones in particular take jealous care of their young. These porcupines, however, acted as if proud of their baby and anxious that Ruth should show it attention. The little fellow seemed to know the girl was a friend of the porcupine family, took readily to her and was soon climbing up in her lap, eating apples from her hand, yes, even from her mouth, all

the time using great care that none of his sharp spines so much as scratched her flesh. Let anyone else come near the cage and things were different. Baby would run into his barrel and hide while the old ones with their war paint on brandished their tails like claymores in the hands of Scottish chieftains of old and rushed to the defense of their offspring. All of which illustrates the wisdom of the wild and shows how readily they are able to distinguish between those whose hearts are kind and others who perhaps are on mischief bent.

EDWARD T. MARTIN, California.

THE LENGTH OF GUN BARRELS

To the Editor of FOREST AND STREAM:

WE have just read with interest a copy of your June number. What particularly interested us was the article on Short Barrelled Guns by W. A. B. on page 292, because for years past we have advocated the use of guns with 28-inch barrels, maintaining all along that this length is sufficient for use with nitro powders. As a matter of fact we have sold quite a number of highest qual-

short barrels do not give quite the same velocity as the 30-inch.'

"This question was raised by one of our customers in December, 1908, and at his desire we sent two guns to Messrs. Eley Bros. with the request that they would test them for velocity. The following results were obtained:

GUN WITH 30-INCH BARRELS			
Right Barrel		Left Barrel	
1	1006	6	1015
2	1011	7	1058
3	1000	8	1048
4	1024	9	1062
5	1037	10	1024

Average, 1016 Average, 1041

GUN WITH 28-INCH BARRELS			
Right Barrel		Left Barrel	
11	1024	16	1022
12	1012	17	1000
13	972	18	1025
14	1000	19	1047
15	1035	20	1058

Average, 1009 Average, 1030

"It will be noticed that the velocity with both pairs of barrels is practically identical."

JOSEPH LANG & SON, Ltd., England.



A baby porcupine at the California State Game Farm

ity guns to some of your sportsmen, fitted with 26-inch barrels.

In 1912 there was a discussion in the *Field* regarding the length of barrels and a Mr. Snell raised the question in regard to the velocity of 28-inch versus 30-inch. We append copy of a letter to the Editor of that paper which settled the question:

"On the question of length of gun-barrels, it may be of interest to your correspondents to know that quite 85 per cent of the guns we build are with barrels of 28 inches in length, and, as evidence that they are favored, in many instances where one gun was originally supplied, orders have been subsequently placed for a second to match. We also frequently build for Continental sportsmen, guns with 27-inch barrels, and occasionally as short as 26 inches. In no instance have we received a complaint of their non-effectiveness. We observe Mr. Snell states, 'I am told that the

To the Editor of FOREST AND STREAM:

OUR friend, W. A. B., claims that barrels, 26 and 28 inches long shoot as hard and close as barrels 30 and 32 inches long. Not so, and if you have quick or smokeless powder it takes a 30-inch barrel for the powder to do its best.

I'm not in favor of 32-inch barrels, but they are still better than 30-inch ones, at least on ducks.

We have a few sportsmen here who claim everything for the 20-gauge, 25-inch barrel. Now they are a sore looking crowd in the marshes. At times they wish they had air rifles for they would be just as good. For the quick swing that W. A. B. gets on the shorter barrel does not make up for what he loses in penetration and pattern. But there are hundreds and thousands of gunners who have gun stocks an inch or more too long for them.

I shot many years before I got wise to it. I am an average man, but I have a thirteen-inch stock, recoil pad included, and I would not shoot any fourteen-inch stock double-barrelled or pump gun we have.

We have two 28-inch barrelled guns in our club but, if the owners make any change in guns they will be to the 32-inch barrelled ones.

I don't doubt a bit that the manufacturers claim that the shorter barrel is as good as the longer, but I do doubt that they can prove it.

I will hope to hear from some more of the boys.

CHAS. F. SCHAFFER, Fairmount, N. D.

It would seem that the last letter is pretty conclusively answered by the one just above, but we realize that there is a wide difference of opinion among gun critics and we would welcome expressions of opinion from other correspondents.—[EDITORS.]

SAVE THE QUAIL

To the Editor of FOREST AND STREAM:
AFTER reading "The Case of the Quail" in your July number, I am prompted to write you my idea of the situation.

I have hunted the real Ruffed Grouse in New Hampshire and they are a real game bird. It requires a good, quick shot to get one and, besides the sporting value, there is some meat on a partridge. But with a quail, it is a great deal different. To be sure, they fly fast and it takes a good shot to stop them, but after you get your quail, what have you? Nothing, as far as a meal is concerned and you have deliberately deprived some farmer and the community of something that keeps down pests, and by so doing helps to produce your bread, your beef, your fruit and your living. I have heard and seen more quail this spring than ever before. They are in our woods, our orchards, our grain, and our meadows. We, the farmers, raise them; we feed them and our woods protect them. But there are few farmers who shoot them. In the fall we see a machine stop alongside our stubble field; two or three men alight with three or four dogs. They trespass our fields and if they leave any quail it is in most cases because they couldn't hit them. It is an outrage. The quail does practically no harm. He consumes grain that would ordinarily be wasted and controls millions upon millions of weeds and bugs and worms. He is the best friend of the farmer. If there were more quail the farmer could raise more wheat per acre, more grass per acre and could pasture more cattle per acre. It is a detriment to the world that men are allowed to shoot these beautiful birds. If you must shoot, shoot clay pigeons. But put a close season on quail for at least five years.

J. E. WAY, Delaware.

HAWKS IN MICHIGAN

To the Editor of FOREST AND STREAM:
WITH June ends the hawk-hunting season in Port Austin, Mich. No one seems to be able to explain their coming in such great numbers every spring, but farmers three miles from the shore of Lake Huron say they do not pass over their farms in flocks. John Butters, pioneer, declares he saw a hawk here only occasionally in the days, when wild pigeons darkened the sun by their numbers. A few days ago, three flocks of hawks passed over Port Austin, simultaneously. One was flying quite low and hunters bagged a number. Those in the layer above appeared to citizens about the size of robins and those in a great flock at a higher altitude appeared like sparrows. Leslie Watt says there were not less than 5,000 hawks in these flocks. Port Austin is at the end of the thumb of Michigan and, with no shore running north to follow, the birds stop here to get their bearings.

There is a bounty of 50 cents a head on the birds and some hunters have

made \$50 in one day. Recently one man shot 96 in one day and another bagged 25 birds the same day.

CHAS. H. COWLES, Port Austin, Mich.

WHERE THE STRIPED BASS SPAWN

To the Editor of FOREST AND STREAM:

I AM enclosing a kodak picture of four striped bass caught near Weldon, on the Roanoke River. And a few remarks concerning the catching of striped bass in this stream from year to year, thinking perhaps it would be of interest to some of the fishermen who enjoy catching these fish in the surf along the coast with rod and line. These fish weighed 52, 50, 28, and 24 pounds.

Probably you and your readers will recall that the Roanoke River is a long stream formed by the Dan and Stanton Rivers uniting at Clarksville in North Carolina and flowing from that point in an easterly direction one hundred or more miles and emptying into Albermarle



Striped bass caught in the Roanoke River, North Carolina

Sound. This river is composed of alternately smooth stretches and rapids above Weldon, but from Weldon to the sound there are no rapids. This is the only stream in this section and, so far as I am informed, is the only stream on the Atlantic Coast that is the natural spawning ground of this fish.

Annually about the first of April these fish appear in this stream at this point and continue here up to about June first, depending to some degree on the warmth of the spring weather. They then return to salt water. They rarely go above this point as the rapids here stop them except on high water, at which times I have known them to be caught as far as seven miles above this point. When returning, after the water falls, they have been caught in large numbers and of large size on a kind of slat fish trap,

put in the swift places in the rapids above this point.

The run this year has been larger than has been known in years and somewhat earlier than usual, due to the early spring, though the fish are not so plentiful as they were in years past, as described by older fishermen who have kept up with these things for years.

The U. S. Fish Commission maintains a hatchery here and buys all of the eggs obtainable that are caught in a ripe condition and pays \$20.00 per million for them. In this way it saves for the future supply, millions of eggs annually, though the amount of eggs caught in the condition to hatch is very small, as compared to the amount that are unripe and will not hatch.

The four fish shown in the photograph contained, by conservative estimate, twelve million eggs, none of which were ripe and were therefore worthless for hatching purposes. They would have brought \$240.00 had they been ripe which would have been the case in five to ten days had they been put back in the river when caught. They would probably have been taken again when ripe, or if not would have been left to spawn in the river.

The proportion of bucks to roes taken is very much greater in favor of the bucks, most of which are twelve to twenty-four inches long, and are taken in numbers ten to twenty times greater than roes, which are generally larger, sometimes weighing more than seventy-five pounds.

The method of taking these fish is with a bow net, having a bow about six feet in diameter with handle about sixteen feet long. Attached to the bow is a net with bag, extending about six feet behind the bow. One man paddles the boat down stream and another in the head of a flat bottom canoe immerses the net with handle perpendicular and the bow at right angles to the boat. As fish are coming up-stream they run into the net and can be pulled in when a strike is felt by the man holding the net.

It seems to us here, who see this fishing from year to year and are interested in the future supply at this point, and also some who are interested in the future supply in their natural haunts after they leave this, their spawning ground, that some plan should be devised whereby all of the roes larger than ten pounds could be returned to the water when taken unripe, so as to insure a larger supply of eggs for propagation. As mentioned before, the same fish that is taken unripe, if returned to water, would more than likely be again taken when ripe, at which time the value would be much greater.

If you have any information contradictory to what I have given as to the natural habits of striped bass, I would be glad to be corrected as I am not a fish expert, but I can see that the taking of these large fish unripe is a waste that should be stopped and can be stopped if a little concerted effort is put forth in the right direction.

A. C. HOUSE, North Carolina.

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Among deep-sea fishers Zane Grey stands out almost as conspicuously as he does among novelists.

Many adventures have been his, and most of them are told of in these fascinating true tales, which are fully illustrated with delightful photographs taken on the scene of action. Those who have read Mr. Grey's novels will know with what vividness he has pictured these episodes in a true sportsman's life.

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The story of a life that extended beyond death and bridged the gulf with a message from the man who died fighting in France to his wife who stayed at home. Readers of Mr. King's "ABRAHAM'S BOSOM" will find in this an even finer piece of literary work, and a more conclusive proof, that, as Maeterlinck said, "There are no Dead."

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AFRICAN EXPLORATION

EDMUND HELLER, ONE OF THE GOVERNORS OF FOREST AND STREAM, HEADS EXPEDITION INTO UNKNOWN PARTS OF AFRICA

By JOHN P. HOLMAN



Town, South Africa, and at that point will begin an exhaustive journey through Africa which will not be completed until the members of the expedition emerge a year later at Alexandria.

African exploration, halted during five years of war, is to be resumed. In the exploring party are scientists, motion picture camera-men directors, and a newspaper correspondent.

Officially this expedition is known as the Smithsonian African Expedition in conjunction with the Universal Film Manufacturing Company. It is the largest in scientific scope since the famous Stanley Expedition that went forth in search of Livingstone half a century ago—it is larger than that headed by the late Colonel Theodore Roosevelt after he retired from the presidency in 1909. The itinerary carries the party into unexplored parts of the Dark Continent and has been sanctioned by Dr. Charles

Walcott, Secretary of the Smithsonian Institution. The object of the expedition is to enrich the archives of scientific knowledge and bring back the wonders of natural history and anthropological research, in vivid pictorial form.

Edmund Heller, of Washington, D. C., a famous naturalist and one of the Governors of FOREST AND STREAM, is to be the director of the expedition, under the authority of the Smithsonian Institution. Mr. Heller's past experience in research work and foreign travel has been very extensive. He is a member of The Explorers' Club, The Boone and Crockett Club, and a member of the Washington and Philadelphia Academies of Science. He was the official naturalist and pilot of the famous Roosevelt expedition into Africa in 1909-10. In 1911-12 he was a member of the Rainey expedition into East Africa. He was the official photographer with Paul Rainey, attached to the Czecho-Slovak army in Siberia in 1918. Mr. Heller is the author of numerous papers on animals, describing original investigations in unfrequented parts of the world and was joint author with Theodore Roosevelt of "Life Histories of African Game Animals."

THE complete and tentative itinerary of the expedition is as follows: From Cape Town north to Victoria Falls, and to the headwaters of the Congo. (CONTINUED ON PAGE 495)



Members of the Smithsonian African Expedition. From left to right standing: Dr. H. L. Shontz, Dept. of Agriculture; Henry C. Raven, Smithsonian Institution; E. M. Thierry, Newspaper Correspondent; Pliny Horne and H. N. Kohler, camera men. Sitting: Dr. J. R. Armstrong, William Stowell, Edmund Heller, Smithsonian Institution, in charge of expedition and George Scott, chief camera man



The Winchester pattern. 320 pellets out of a possible 431, or 74% of the shot charge, evenly distributed; no birds get through.

How big a bag will you bring back?

THE difference between a bulging bag and a lean one is often a question of gun and shells and not of shooting skill.

Make sure you have the right game-getting combination—shells that kill when the aim is true, and a gun that enables the shell to make its best pattern.

Good shell patterns are either allowed or prevented by the character of the gun barrel—the chamber, bore and choke.

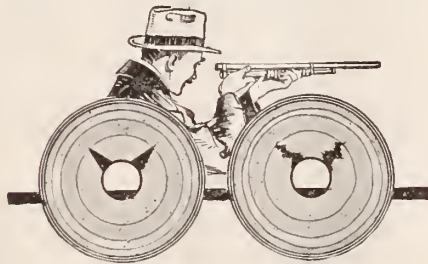
Faulty chambering even more than faulty choking tends to mash and “ball” the shot, making pellets fall short or fly wild.

And if a gun is faulty in its most vital part, the chamber, the chances are that the bore is also carelessly made.

From chamber to choke, the barrels of the famous Winchester Repeaters are bored to make the shell throw its highest pattern. They are free from shot-jamming defects. They let the shell do its full work.

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Point a Winchester barrel toward the light and look through the bore. It looks like a highly polished mirror. Not a false shadow throughout the bore. Sight through the bore at a horizontal black line on the window. This line will throw a “V” shadow in the bore.



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Perfect bore of Winchester barrel revealed under “Line” test. Irregularities revealed in inferior shotgun barrel under “Line” test.

Tilt the barrel till the point of the “V” touches the muzzle. The perfect “V” shows absence of irregularities.

This is the “Line” test of a perfect bore. No faulty barrel can pass this test—the “V” will be distorted.

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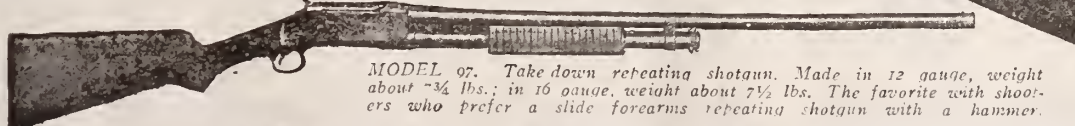
Before you take to the woods this fall, get your dealer to show you a Winchester repeater—Model 97 for hammer action, Model 12 for hammerless. Put one to your shoulder, try its balance, see how beautifully it handles. Your sportsman’s instinct will tell you it’s the best weapon you could choose. Leading hardware and sporting goods dealers in every community carry Winchester arms and ammunition. They will be glad to assist you in selecting the gun best suited to your needs. Upon request, we will mail you, free of charge, the complete catalog of Winchester guns and loaded shells.

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OUTING PREPARATIONS

THE EQUIPMENT NEEDED FOR THREE MEN ON A THREE WEEKS' TRIP INTO THE NORTHERN WOODS

By C. R. MAC INTOSH



WHEN a man's vacation is approaching he usually reads every article that he can find in magazines and pores over every sporting catalogue that he can obtain and tries to be governed by what he has read; whether right or wrong, he has no means of telling and the result usually is that he starts on his vacation loaded down with things that are utterly useless and in the way all the time. Let us condense all the articles which we have read, and add a goodly share of common sense and equip a group of three men to go on a three weeks' trip in the Maine Woods and I think that we will have an outfit that will be all that is needed for comfort and lightness and we will eliminate the useless junk that remains untouched until breaking up time.

We will assume that a guide is not necessary, though if the three are inexperienced and are going into an untravelled section, they should secure a competent guide, and that the men are expected to pack their own outfits. Lightness of equipment is the thing that counts when there are miles of weary hill and dale to travel before the destination is reached, and we will hold ourselves to the necessary things that will make the trip easy, pleasant and profitable.

THE first thing to consider is the tent. For this an eight by ten A tent will be about the thing. It should be made from a six ounce drill. It is very light, but is good for zero weather and not too hot for summer weather, and is an easy pack for a man. The dishes come next and should be of aluminum. For cooking, the time old frying pan still holds it's place. Get the long handled variety and you will save a few burned fingers. The rest of the cooking outfit should consist of four pails of different sizes so that they may be fitted one inside the other, as they take up less room in the pack and should be oval in shape. The largest should be about 8 inches wide and 12 inches deep. This one should be used for a water pail, the next in size for cooking beans, and the other two for sauce or fruits and boiling tea or coffee. These should be made of blackened sheet iron to hold the heat and stand the rough usage. A couple of baking sheets should complete the equipment. A stove is hardly necessary, but one can obtain very good collapsible stoves that are light to lug and are not very bulky. These are usually about a foot wide and one and one-half feet long, with ends and sides hinged to the bottom and a grooved top

to receive the sides and hold them firm when set up. With the stove should come three sections of telescoping pipe and a tin ring to fasten to the pipe hole in the tent so that the pipe will not burn or char the tent when the fire is started. A knife and fork apiece and one large batter-spoon complete the outfit.

FOR provisions, we should pack at least two slabs of bacon. It may not taste good at first, but tramping all day will make bacon a most satisfying food, and three men will make two slabs look sick at the end of three weeks. A 30 pound sack of flour for biscuits and a can of baking powder, dried beans and canned pork, a pound of tea, three pounds of coffee and ten of sugar. About ten cans of condensed milk will last three weeks, but more can be taken. We must not forget salt and pepper, a box of each and butter—a few cans. Margarine keeps better than the real thing, but suit yourself on this point. Get a thin tea canister with a hole about three inches wide, fitted with a screw cover, and fill it with three, five cent boxes of matches. Use these only when away from the fire and when starting one. Pine slivers, lighted at the fire, will start a pipe just as well as a match and at the same time save one. Pocket match boxes are useless. Put the matches you wish to carry on your person in a small bottle with a tight fitting cork and they will be dry after you have fallen overboard. You can light the ordinary match on the side of the bottle if you first roughen it with a three cornered file.

A pair of heavy blankets to the man is all the bed clothing needed for the most severe weather. In summer, two light ones will do. Make a sheet of one and a cover of the other. There is not much use in suggesting what the man's attire should be; for very few men there are who do not have their own ideas as to what they want to wear. A flannel shirt, khaki trousers, coat, sweater and three pairs of woolen socks. Shoes are what

(CONTINUED ON PAGE 504)



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CATCHING BULLFROGS

THE ADVENTURE OF STALKING THIS LITTLE DENIZEN OF THE MUD-FRINGED POOLS AND QUIET STREAMS

By JAMES MILTON BENNETT

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DISCOURTEOUS most outdoor people do not admire a stream with muddy banks but prefer a rocky, broken shore where there are signs of game fish. But the creek with mud bottom and mud banks is not without its merits. Here is where the bullfrog spends his spring and summer vacation, sitting on his cold cushion of mud by night, demonstrating his baritone skill but keeping almost altogether quiet by day.

He is only semi-aquatic. If the day is cool he stays in a hole in the ground, sometimes several yards from the water. Neither is he likely to come out at night if the weather has suddenly turned chilly. One cannot blame him for being particular about the weather, for those acquainted with him know that all he wears is a thin silk suit, which, by the way, includes a white vest, all of which makes the little creature appear quite fashionable.

Spring or early summer is the time to grease the skillet, smack the lips, get in the stream and procure the menu of an odd but very delicious meal which many people have never enjoyed. The calendar must be consulted, for late in the season this queer mammal slides into his deep den in the ground which is frequently under the roots of large stumps or trees.

Who is not fond of night music? To the nature lover the night music along a mud-fringed stream, though not very harmonious, has an agreeable melody and is wonderfully resonant.

As soon as darkness has securely settled over the water, the frogs, big and little, and usually in amazingly large numbers, come out of their hiding. They find comfortable seats and all face the stream in readiness to take a dive in case of danger. Then the music begins. They have but two words and one tune. In deep, rolling, watery tones they sing, "Knee-deep! knee-deep! knee-deep!" accenting "deep," with a little more than a secondary accent on "knee." They surely have more than every variety of bass known to the artists of music. First bass, second bass, bass of every quality, except an inferior voice which is seldom heard, rolls out over the quiet stream in enchanting waves.

To bag this coveted meat numerous methods are employed. Boys who are having their early experiences about the water and sportsmen who do not care for night hunting or even to get their feet wet, creep along the bank by day with long poles, short lines and tiny hooks with red fragments of cloth as bait. When they discover a frog the

bait is carefully lowered near the frog's nose. He quickly leaps with open mouth almost always making himself an easy catch.

Others hunt by day with a small bore rifle.

These methods are good sport but not so thrilling as the methods used by night and the number of catches is far less.

Netting the frog by night with a sort of double net is practised by some frog hunters and the scheme is no doubt a good one, but it is difficult for one man to handle the device and carry a light at the same time.

If one desires to try this sport he should equip himself with a strong four-tang gig having a light, straight bamboo staff about ten feet long. This he may invert when feeling his way along in the water to safeguard himself as to the depth of the water, perhaps saving himself a cold plunge out of sight and the possible loss of his hat.

Upon approaching, the gig should be slowly directed toward the frog until it is within ten or twelve inches of him, when a sudden thrust should be made taking care to aim straight.

The hunter should never wear boots as they fill with water and make walking sluggish, but thick soled shoes and heavy wool socks securely fastened. If he desires to save himself much discomfort from chill, even if the night is quite warm, a wool suit and wool shirt are necessary.

A large, clear light is an indispensable asset. Some prefer a carbide equipment but an electric lantern filled with a strong battery is perhaps better as it is not so likely to be extinguished and is less burdensome in carrying.

The darker the night and the clearer the water, the brighter the prospects for

(CONTINUED ON PAGE 490)



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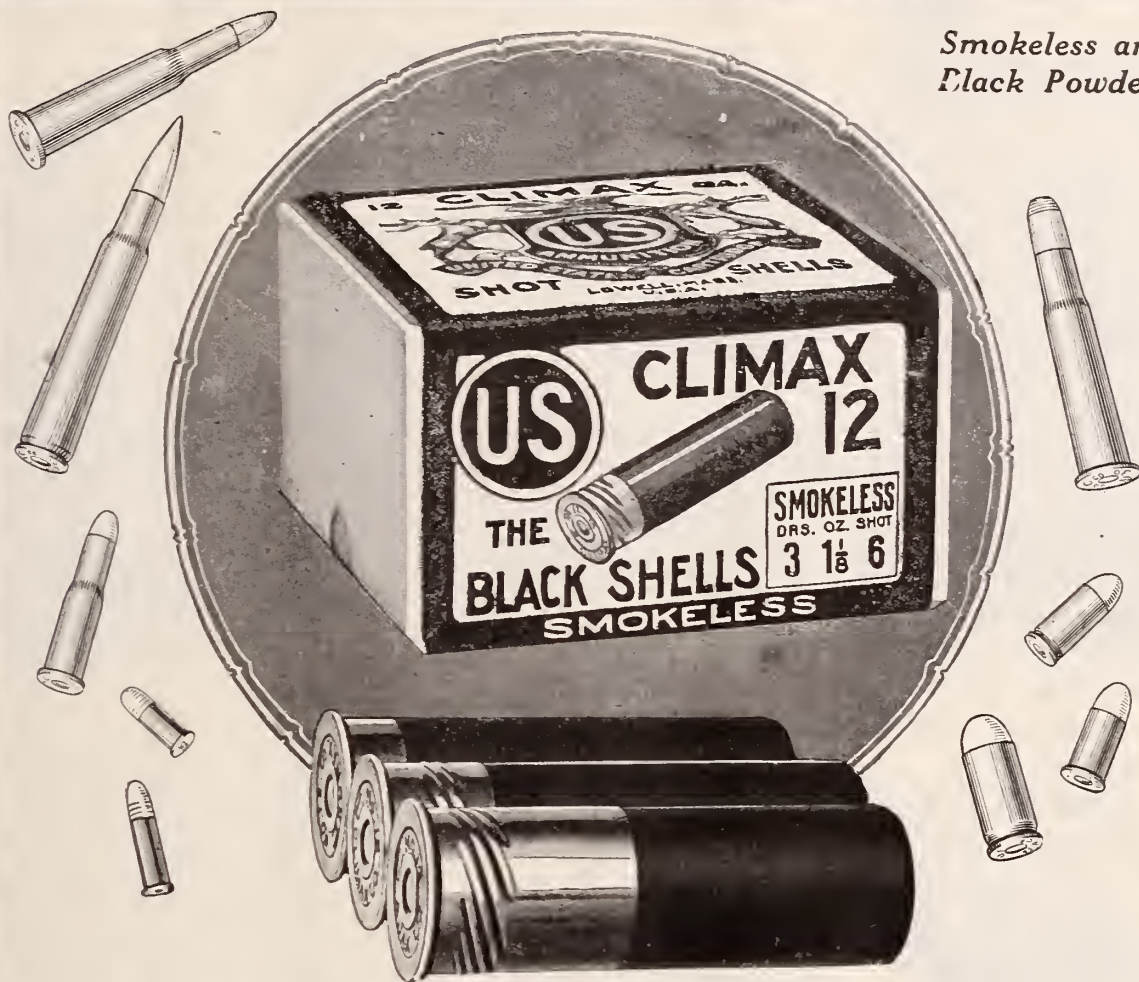
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HUNTING THE MOOSE

SOME NOTES CONCERNING THE BUSINESS END OF GOING INTO THE WOODS AND COMING BACK WITH A TROPHY

By PHIL. H. MOORE



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Berlin, Wisconsin



THE question is often asked by sportsmen how it happens that a licensed guide or other professional woodsman can go out into the wilds of Nova Scotia and come back with a fine bull moose in one or two days, but if he is hired for the purpose of giving a sportsman a shot at

a moose, he is often gone a week or ten days or longer before the sportsman gets an opportunity to either see or kill one.

Some amateur hunters even go so far as to say that a guide purposely prolongs a hunt with the idea of getting more money out of the sportsman.

Admitting that it is often a fact that as soon as a visitor has killed a moose he wishes to take the head and get back to civilization so he can triumphantly tell his friends all about it, the average guide would rather have a moose shot quickly and get the advertising that a successful expedition gives him, than to prolong a hunt and perhaps miss the opportunity of getting one. He wishes to avoid the possibility of bringing his charge back, wearied, disappointed, and sore.

Guides know from experience that a man in this frame of mind is usually hard to settle with and figures the cost of the trip down to the last detail, whereas if he gets a fine head he is usually more than willing to slip his successful guide quite a bonus over and above the actual charges.

So much for that phase of moose hunting. There are many other whys and wherefores that puzzle some returning hunters. Most of them can be explained if a little time and effort is spent in investigating the conditions as they exist

WHEN guides take amateur sportsmen into the woods, they have to consider their employer's physical comfort; they have to avoid dangerous situations; they have to consider the various phases of the weather, plan to have a good, dry camp each night with lots of wood, consider carefully the physical limitations of their sportsman and confine their hunting to such locality, topography and methods as their employer seems to be able to undertake.

Too much whiskey in camp saves the life of many a fine bull.

The copious use of it induces late rising and slothful hunting.

Excessive indulgence in the coarse greasy food served in the woods is nearly as great a detriment as too much liquid stimulant. Outdoor air and exercise sharpen jaded appetites, and unless a sportsman is wise and moderate as to how he indulges himself, his first few days of hunting are marred by acute indigestion.

When a man has to sit for hours on the edge of a cold, wet bog in the early morning, waiting for a bull to come to a call, it takes both stamina and patience. If at the same time he is suffering from heart burn, he is being truly martyred.

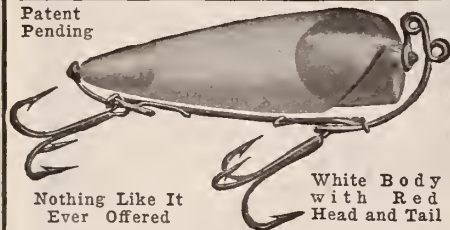
In still-hunting, a conscientious guide does not wish to kill a moose where he has to leave the meat in the woods, consequently he confines his hunting to a country where the meat can be easily gotten out to his canoe. When practising the art of calling, a guide can so place himself that the moose can usually be killed comparatively near water transportation. The guide is aware that if his charge kills a moose it means a great many hours of hard work to skin, dress, cut up and carry the various parts of the gigantic animal to water transportation, and at the same time he has to make camp, feed and chaperon his

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The author on Lake Rossignol, Nova Scotia, returning from a successful hunt

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FREEPORT, MAINE

"Sport" in addition to looking after himself. Every move the guide makes is limited by the capacity of his employer to take care of himself in the woods.

WHEN the professional guide or hunter goes hunting in the Rossignol district of Nova Scotia, he takes a very small, light tent, one blanket or quilt, a kettle, small fry pan, a cup, skinning knife, salt, bread, tea and a chunk of pork or moose meat. He has plenty of matches, cartridges and his rifle and axe, burlap bag and pack strap. He has no boxes of canned goods, no extra clothing, no dishes, camera, game bags or fancy paraphernalia. He carries the bare essentials to existence only. He packs this in a small, light, canvas covered canoe, and starts off. He is hunting from the minute his paddle first touches the water. He makes no noise. If it is calm and frosty he will call any time during the day or night when it is light enough to see to shoot. If the weather is not right for calling he leaves his canoe at a convenient spot on the shore of a lake or river, puts a chunk of bread and meat into his pocket with a pinch of salt and tea, and with his cup, axe and rifle starts on his hunt. If night overtakes him, and there is bad country between him and his canoe, he simply builds a fire and stays right where he is until morning. If he is in a good moose country and the morning is calm, he will call right from his camp fire. For supper and breakfast he will eat dry bread, some pork or moose meat, make strong black tea in his tin cup without sugar or milk, and be satisfied.

IF he kills a moose he scientifically disembowels him, skins and quarters the animal, and if far from his canoe, cuts out a great deal of the bone and sub-divides the quarters so he will have less weight to carry. When he gets back to the canoe with his first load, if it is raining or cold he will usually put up his little tent, gather a good pile of dry fire wood, eat some more bread and meat and drink some more black tea before he goes back for the next load. He will often spend a full day packing out moose-meat, eating a little lunch between each trip. By nighttime he is tired and sleepy but if the weather is calm and he wishes to get across a big lake before a storm comes up, after a little rest, he will load his canoe and start on his homeward trip any time in the night that he feels inclined that way. He really does not rest or eat a variety of food until he has his moose head, hide and meat at some place where he can load it on a wagon. It is quite the usual thing for hunters to come to Lowes Landing on Lake Rossignol where my camp is situated, at two or three o'clock in the morning with a moose, unload their canoes, pile their cargo on the shore, turn the canoes over their dunnage, walk twelve miles to Caledonia in the night and walk back with an ox team, put their load on a wagon and walk out again without stopping anywhere to sleep.

They sacrifice all thought of sleep or physical comfort until they have safely landed their moose in the settlement.

When two men go together it simplifies the work somewhat.

If a guide should put a sportsman through a course of sprouts such as the above, if it did not kill him it would at least preclude the possibility of his ever hiring that guide again.

Luckily the average amateur sportsman that habitually goes into the Nova Scotia woods to hunt big game, goes to gain health and have a good time. If he gets a fine head he is tremendously pleased and the guide is tickled to death. If he does not get a trophy he usually gets plenty of fish and small game, has a picturesque and comfortable camping trip, and leaves the woods with but faint disappointment at not running down a big bull.

CATCHING BULLFROGS

(CONTINUED FROM PAGE 486)

success. On a dark night more frogs are out and the lantern makes a more concentrated illumination when there is no moon to counteract it. If the water is clear there is no difficulty in seeing the target beneath the surface. Furthermore if the water is clear the banks are in a less disturbed condition making discovery of the game less difficult. Under such conditions a frog may be seen as far as fifty yards away presenting as evidence a round white spot about the size of a silver dollar.

THE general location of a possible catch may be determined by the bellowing notes, "knee-deep! knee-deep!" that are always heard on a warm, dark night. The approach should always be made upstream, the hunter wading in the water a few feet from the shore, keeping the light constantly reflected upon the bank several yards ahead. Going downstream produces more waves which are usually followed by a splash some distance below and the prize is gone. If the light is turned away from the bank the pursued creature takes advantage of the darkness and finds a refuge in deep water.

To conclude too soon that the game has departed just because all is quiet is not patient pursuit, as Rolly may be sitting behind an object on the bank. He invariably ceases bellowing when his pursuer gets close. At times only his head is above water. Then he can feel the slightest wave which results in the head disappearing. Even then if the water is clear the gigging may be done at a depth of several inches.

Failing in such a search it is often only necessary to look in the trees that lean out over the water where the croaker may be sitting three or four feet above the stream ready to make a sensational dive to safety.

Although silent and cautious upon approach, on the other hand the bullfrog seems unwary and stupid. He sometimes leaves the stream, escaping in frantic leaps toward a hole in the ground only to sit at his open door to be caught with the bare hand.

(CONTINUED ON PAGE 497)

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WOOLWORTH BUILDING NEW YORK

A MANUAL OF WILD-FOWL SHOOTING

(CONTINUED FROM PAGE 463)

THE CANADA GEESE.

THE Canada goose or common wild goose is familiar to every sportsman. Head and neck black with broad white band running under the head from eye to eye; back and wings grayish brown, feathers tipped with lighter brown; breast soiled white, gray beneath; rear underparts white; wing primaries and tail black; feet, legs and bill black. Average length about 38 inches. Male and female are alike in plumage.

A mellow honk, ah-honk, ah-honk, drifting down on the wind to the waiting gunner brings him to sharp attention as no other call on the bay will. He grips his gun and earnestly scans the gray fall sky. There they come, high in the air, two long lines converging to a point in front. They are hardly more than black dots away up the bay.

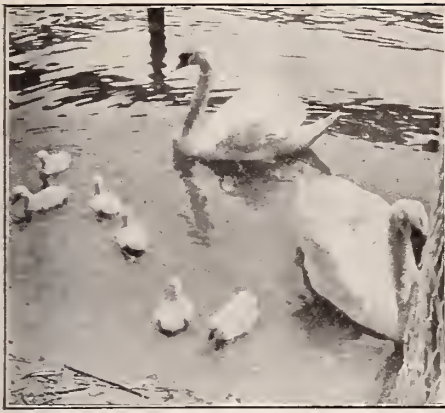
The live geese decoys hear the call of the wild birds and with heads erect honk their welcome. The geese come steadily on, a wise old gander leading at the point of the feathered "V." The hunter lying motionless in his gunning boat, with just his head high enough above the grass covered deck to see about, watches the geese out of the corner of his eye. The flock hears the calling decoys and answers. Their attention is attracted by what appears to be a flock of wild geese resting on the water just off a point of marsh, but which in reality are wooden counterfeits, with the exception of the two or three live decoys.

The geese have flown far on their journey southward, they are tired, and they see in the decoys a flock of their kin resting on a feeding ground. Gradually they coast down till near the water. With sharp eyes they cover every foot of that point of marsh; nothing but the waving brown rushes meet their vision. The live decoys are honking reassuringly. All seems as it should be. With wings set in graceful curves and tails spread and lowered to check their flight, the flock sails into the decoys against the wind, keeping up a constant ah-runk, ah-runk, ah-runk.

A loud report, and one great bird suddenly crumples in the air and splashes into the water. Confusion reigns on the instant. The terror-stricken geese have sprung yards higher into the air, jostling one another in their mad haste to get away. The gun, aimed where two birds are close together, roars again, and two more geese tumble into the water. The next second the survivors have veered off and are out of range, going down wind with astonishing speed.

The sportsman going after geese should make an early start. The decoys should be arranged on the water and the hunter concealed in the blind with the first streaks of dawn. Often the best shooting is to be had during the first hours of day-light.

The location of the blind is the first matter to be considered. It is most important to know what the geese are doing—that is, what points the birds are



A pair of swans and their newly hatched young

using under certain wind, tide and weather conditions. Good shooting may be had from a certain point during a north wind while the same place may be worthless in a south wind. A point might be excellent at low tide, useless at high tide, and so on.

THE sportsman who puts himself in the hands of a competent local gunner will hardly fail to get shooting, provided the weather is right and the birds are there. The old bay-men who have spent many years following wild-fowling every season know just where to go for the best shooting. They are experts in their line and it is seldom that they go wrong.

The sportsman who goes out alone must know these things to be successful. Advice in only the most general way can be given, since it is all dependent on a given locality and existing weather conditions. Experience is the best if not the only teacher. Time spent in finding out what the geese are doing is well spent, since a mistake in choosing a place for the blind may mean the difference between good shooting and none at all.

Geese, like swan and other water-fowl, are shot from shore blinds located on points of marsh running out into the bay, or on the small meadow islands in the bay. Where permanent blinds are used, these are often built of straw, rushes or marsh grass interwoven through a light wood frame inclosing on all four sides a space sufficiently large to hold one or more shooters. Small, one-man gunning boats are often used to shoot from. They are generally used on Barnegat Bay. The boats are drawn up among the grass on a point and the decks are carefully covered with cut grass or rushes, so that at a short distance they cannot be distinguished from the surrounding marsh. The wooden decoys, often supplemented by live geese decoys, are anchored out on the water just off the point, within easy gun-shot of the blind.

A battery or sink-box is sometimes used and this is anchored out on the open water over a feeding ground, the decoys being arranged on all sides in a natural looking flock. Geese are frequenters of the sand bars in the bays or rivers where they consume quantities of sand and gravel. The hunter takes advantage of this knowledge; a hole is dug on the bar and a large wooden or metal box is sunk level with the surrounding sand. The

box must be water tight since it is often below water level. Some of the decoys are placed on the water nearby, while others, mounted on sticks which serve as legs, are put on the sand around the pit. The hunter takes his position in the pit with his head just level with the surface of the sand, using a small box for a seat. The use of the battery and also shooting from sand-bars is now unlawful in many states.

Wild geese often resort to the fields to feed on the grain and grass, returning in the middle of the day and at night to the lakes, rivers and marshes. They are shot from a blind placed under their line of flight. The geese often follow exactly the same course day after day. However, the big fowl are exceedingly wary and it does not take many days of constant shooting to cause them to change their line of travel through the air.

ON the wide prairies and grain fields of the inland sections of the west, geese are shot over decoys from a blind, the sport being similar to that practised on the bays and sounds about the coasts. It is all important to know what the geese are doing. It must be known what fields they are frequenting and in what part of the field they are feeding.

When this point has been established, the hunters go to the field in question, after the geese have left and dig the holes in the ground in which they are to hide. Great care should be taken to scatter the earth removed so it will not be noticeable. Still more care should be used in re-arranging the stubble or grass about the holes. Wild geese have exceedingly keen sight and they will at once notice and be suspicious of any change in the appearance of the feeding ground.

It is well to dig the pits several days before shooting from them and in the meantime to leave the geese undisturbed and to become accustomed to any slight change their sharp eyes may detect.

On the day of the shooting, the decoys, live birds or metal profile decoys, should be arranged nearby and the hunters concealed in the pits well in advance of the time when the flight is expected. Often the hunters sew small bunches of grass on their hats and on the upper part of their coats, so that when they are in the pits the general outlines of their bodies will be broken and less discernible to a bird flying high over head. The color of the hunter's clothes should by all means harmonize with the surroundings.

Live decoys are, of course, the best. These are either birds raised from wild goose eggs, or wild birds which have been wounded and which have recovered. They are wing-clipped and tied out by a cord from the leg to a small stake. After a number of seasons of serving as decoys, wild geese not only become very tame, but they show great intelligence and seem to know just what is expected of them.

The professional gunners can imitate the call of the geese, and where only wooden decoys are used, often lure the wild birds to the decoys by "honking."

Some good shooting is often had during a fog or a snow storm, since the



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geese seem to become confused, are less wary at that time and come more readily to the decoys.


Great numbers of wild geese were formerly killed at night by market hunters. A strong searchlight was mounted on the bow of the gunning boat and the hunter rowed about on the bay to locate a flock of sleeping geese. When the powerful light was turned on them the fowl became confused and seemed to forget themselves, often allowing the hunter to approach within range. Large gauge guns were used, often too large to be shot from the shoulder, in which case they were mounted on a stand. Many geese were often killed at a shot, it naturally being the desire of the market hunter to bag the greatest number of birds with the least expenditure of ammunition. This form of shooting has been absolutely prohibited for many years. It was extremely destructive, and of course, did not contain a vestige of sportsmanship.

When geese are approaching, it is of the utmost importance for the sportsman in the blind to remain absolutely motionless. The slight moving of a hand or the turning of the head will often be sufficient to spoil the chance for a shot. Geese fly with great rapidity and it is necessary to shoot far ahead of them when they are passing. They are large birds and always appear to be nearer than they really are. It is, therefore, important not to shoot too soon, but to let them come well in over the decoys.

Large gauge guns are often used in shooting geese. Frequently the 10-gauge, often the 8-gauge, is used today where it is lawful to do so. But a strong shooting full-choked 12-gauge, loaded with 3½ drams of powder and 1¼ ounces of number 2 shot, will prove very effective in the hands of a man who knows how to use it. Smaller gauges are used, even as small as the 20-gauge, but with these guns there is always the chance of wounding birds which will not be recovered. Every sportsman desires to kill his bird quickly and cleanly.

THE Canada geese, with the young of the year, come to the United States in the latter part of October and during November, and continue to move southward as the waters freeze over. They pass again in the early spring on their long journey to the northern breeding grounds. Immense numbers of geese formerly passed up and down the Mississippi Valley in the spring and fall. The fowl were also extremely plentiful throughout the interior in general and on the Pacific, Atlantic and Gulf Coasts. Enormous bags of geese were made a few years ago, but heavy shooting by a constantly increasing number of hunters and the encroachments of civilization on their feeding grounds have sadly diminished their numbers.

Goose shooting is exciting sport, and I have spent many enjoyable days over the decoys on the bay, hunting these wise old travelers of the sky. Often the days were bitter cold and stormy, but to the lover of wild-fowl shooting the sport is always worth the exposure to the bleak winds and the driving rain or snow.



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We would lie out in our grass-covered gunning boats, pulled up on some good point, until thoroughly chilled through and through. Then, when no birds were in sight, we would crawl stiffly from our cramped quarters, and race up and down on the adjoining meadows to drive the cold from the marrow of our bones and start the blood circulating. Then we would go to our boats again and, lying prone on our backs beneath the decks, with our heads just above the rim of the cock-pits, would scan the leaden sky and the rolling storm clouds for a sight of the honkers from the north.

It was often rough work on the bay, and a man must love the sport to be willing to endure the exposure. It was often on days not fit for a man to be outside that the shooting was the best. But when that mellow honk-ah-honk, ah-honk mingled faintly with the moaning of the gale, the cold, the chilling wind, the rain or snow were forgotten in the keen anticipation of seeing those big geese curve their wings over our decoys.

BIRD MIGRATION UNDER THE STARS

(CONTINUED FROM PAGE 465)

wild notes as they passed over; fainter as they receded, till they, too, faded away. And now a jumble of bird voices came from the far away on-rushing host. Curlew, dowitcher plover, all the well-known calls were recognized while clear, distinct, at intervals, the ringing phe-o-ee! of the blackbreast seemed to cut its way, like the thrust of a keen blade, among the myriad bird cries in the darkness above. "Well!" said the captain, "the birds are here!" and he went below to turn in, leaving me alone on deck. All through the night thousands of birds dropped to the marsh, and sunrise glinted on the breasts of other thousands still passing. It was nearly mid-day before the flight ceased. What a sight the marsh presented that morning. Look where you would, birds! birds! wheeling and weaving about in erratic flight over the dun meadows. Glad voices filled the air; all was bustle and activity for nearly two weeks, till once more the wind backed into the east and shrouded the marsh in mist and rain. For days the storm raged, clearing at last late in the night. Sunshine the next morning soon revived the spirits of the winged marsh folk who piped more sturdily under its genial influence. I now noted a different tone in the calls, a questioning, as though they asked: "Are you ready?" Presently an immense flock of curlew rose and whirled over the marsh in ever widening circles, mounting higher at every turn and piping unceasingly till at last, high in air, they head north and float away. Thousands of birds are soon rising and swinging off while the air rings to their plaintive calls. Thin wisps and bunches of migrants are outlined against the sky, all bound north; all day

and far into the night they are passing. Scraps of small talk among the little travelers tremble for an instant far above, then drop softly, musically down, to where I am listening below.

The marshland is deserted; the birds are gone; how lonely it seems without them. The arrival and departure of our inland migrants is not so markedly noticeable. Spreading over a much larger territory they scatter by with a gradual increase and diminution of numbers that will scarcely attract the attention of a casual observer.

The males of many species are the first to appear at springtide; occasionally weeks in advance of the females, who follow more leisurely. It is charming when the flight is on to hear them passing at night. Tender little voices call and answer through the darkness and, while they may lack the free, wild twang of the shore bird's note, their calls are inexpressibly sweet and suggestive as they float along on quiet rights "under the stars."

AFRICAN EXPLORATION

(CONTINUED FROM PAGE 482)

go. From there, following the River Luvua down as far as the River Lukuga, eastward to Lake Tanganyika. From Lake Tanganyika to Ujiji. Using Ujiji as base, they will make such trips eastward into the territory formerly known as German East Africa, as advisable.

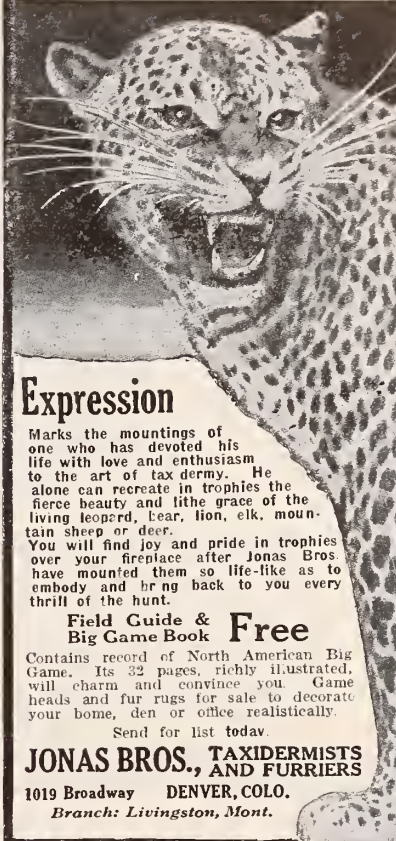
Thence northward on Lake Tanganyika to Lake Kivu, from which point, operating westward toward the Lualaba Congo, if it is determined there is material in that direction worth investigating and photographing, they will proceed northward to Albert Edward Nyanza and to the Ruwenzori Mountains.

From the Ruwenzori neighborhood the expedition will probably travel westward, following in a general direction the course of the Aruwin River, then returning to the Albert Nyanza and proceeding down the Nile for some distance.

Returning to the Victoria Nyanza, the party will proceed to Nairobi, thence to Mt. Kenia, thence to the desert country in the northern section of British East Africa.

The party will then probably turn southward to Mombasa and thence to Bagamoyo and Dar-es-Salaam, where it will entrain for trips through the heart of the territory formerly known as German East Africa, provided there are in this district points of interest worth the journey.

At this point the party may disband, some embarking for home, via Mombasa, Suez Canal and the Mediterranean, and some proceeding northward up the Nile to Alexandria, the only route possible for transporting wild animals.



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HOW TO HOLD THE RIFLE ON GAME

(CONTINUED FROM PAGE 457)

the peep sight bead allows a great part of the deer's body to show clearly to the eye where at the same range the open sight would have practically covered up the game entirely. In photograph No. 5, is shown the appearance of the deer through the peep sights when properly aligned. For standing, long distance shots this is the best sight that I know of, with the exception of course of the telescope sight. The peep has its limitations on running game where the intervening trees and ground must be watched as well as the speeding deer, but for stationary targets there is nothing more dependable or accurate. Since the post of the front sight on the peep sight combination stands out so plainly it is easy to hold the rifle plumb. The upright front post shows up quickly when the barrel is rolled over to one side a little. The peep sight is also the best possible one for dark, cloudy days or when the shooting is done under deep shadows because it shows up smaller than any other.

Photograph No. 6 represents the appearance of the deer seen through the telescope sights. The cross hairs show the correct holding to hit while the dotted lines illustrate how the rifle might be held and a miss result. Since the perpendicular hair of the sight does not stand straight up and down the barrel has been rolled to the left, as the dotted lines indicate, and the shot will go wide to the left. The telescope sight is one of the very easiest to align because the cross hairs show up clearly when the rifle is tipped over to one side or the other very quickly. Besides, the full body of the deer can be clearly seen in the telescope sight and the distance makes less difference. Of course this sight will not do for common use in the woods because it is practically useless on moving game and the telescope may be knocked out of alignment easily.

To acquire holding the gun plumb, no matter what the type of sights you prefer, is a habit that all field shooters must make second nature. Stand before a mirror and aim the rifle at your image while your body is in a leaning position, throwing the rifle to your shoulder quickly, until you can put the butt plate against your body in a perpendicular position, no matter how cramped your physical pose. This will help you to cultivate the habit of plumb holding under all unfavorable conditions presented to you in the field. The shooter who holds his rifle easily and naturally in plumb position will bring home his trophy and his meat nine times out of ten.



CATCHING BULLFROGS

(CONTINUED FROM PAGE 490)

The hams usually sold in the market are hardly up to the standards so far as weight is concerned. They may be taken from frogs that are not full grown or from places where they do not thrive best. A muddy, isolated stream which is seldom visited by sportsmen produces the choicest specimens, the hams reminding one of the legs of a good sized spring chicken. The strength of such a frog is a surprise to an amateur. He may be holding his prize as he would a baby chick when the strength and agility of the captive are suddenly demonstrated, leaving an empty hand. A strong bag with a draw string snugly tied is the surest way of getting home with full compensation for the wet journey.

Another of the interesting features of the bullfrog is his wonderful vitality. A hard dealt blow with an oar will flatten him out like a fritter, but unless one has used about all his strength Rolly will disappoint him by leaping into the water. A careless, unsympathetic sportsman cuts off the hams without first killing his game, but the frog will hang on to life by sitting up, supporting himself by his fore legs, and will even try to bellow.

The man who has captured his first bag of frogs is likely to get disgusted with the task of dressing them, however, if the art is once learned it is far from difficult. There is probably no better way than to have a heavy butcher knife well sharpened. With it the frog should first be struck a hard blow on the head, then beheaded immediately. If at all convenient this should be done at the time of gigging to avoid suffering or escape. Following this, a slash across the back cutting only the skin enables one to take a tiny pair of pliers and remove the silky suit. If the fingers only are used, the task becomes entirely too tedious.


A sportsman does not catch frogs for the purpose of studying their anatomy but he will be interested to note the big air bladder which constitutes a part of their organism; also the very low temperature of the blood which is easily determined by the cool effect felt on the hands.

If one has been successful in taking large specimens, or if he has only taken a small number, the whole frog may be used as the flesh has practically the same taste.


The sport does not cease until the lid of the frying pan is kicked off a few times.

The enticing odor at the time of cooking and the rare, delicate flavor enjoyed when eating, create a sufficient basis for the fancy price which frog hams bring.





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FURTHER NOTES ON SHORE BIRDS

(CONTINUED FROM PAGE 475)

X—KILLDEER PLOVER

THIS good sized plover, with two black bands across its white breast, is one of our few upland species of the Shore-Bird group. It is rather fond of frequenting old pastures, running about over the sod, as its relatives do over the sands or marshes of the sea-coast; and it lays its eggs in a slight depression in the ground in such a situation, most frequently near some pond or lake to which the birds resort in the fall when the cares of housekeeping are over. It is a noisy bird at all times, especially during the nesting season. Its common note, a harsh high-pitched "kill-dee," "kill-dee," has given rise to its popular name.

Killdeers are abundant in the interior but uncommon and of more or less irregular occurrence near the Atlantic seaboard. They return from the south and nest early in the spring, and linger until late into the fall.

XI—TURNSTONE OR BRANTBIRD

THE Turnstone is a medium-sized Shorebird about as large as a Robin Snipe. It is stockily built with short neck and legs, and strikingly pied, black, white, and rufous-brown plumage, duller in fall and in young birds. In habitat, occurrence, and numbers the Turnstone parallels the Black-breasted Plover on our coast rather closely. It not infrequently associates with that bird, and will respond as readily to an imitation of the Blackbreast's notes as to that of its own calls, which are difficult to duplicate. It is a late species to move northward in the spring, when it may be found in flocks feeding on sand bars near the ocean; and it usually does not return on southward migration until August. It also occurs on coastwise meadows, frequently associated with flocks of Lesser Yellowlegs. Its common flight call when flushed or in passing is a diagnostic low cackle, but it also has a rather loud plover-like "kik-kyu." Other names for the Turnstone are "Chicken Plover" and "Horsefoot Snipe." According to Robert B. Roosevelt, it feeds on the eggs of the king-crab or horsefoot which it digs up by jumping in the air and striking with both its feet at once into the sand, thus scratching a hole about three inches deep and one and a half inches across. This interesting observation has not been verified by recent naturalists.



THE ROLLING FIELDS OF SOMERSET

(CONTINUED FROM PAGE 459)

the Wyckoff farm, where Irvey received a warm welcome from the proprietor. The horses were unhitched and fed by Dick, while we tied our game in pairs and hung them up in the cool spring house. Then in the huge "bay" of the barn, with the great doors swung wide and the fragrant new mown hay for a table cloth, Irvey prepared our luncheon. The box was brought in by Dick and unpacked by his master. Generous was the quantity and wide the scope of delicacies, among them being a large jar of pickled mussels of which I am exceedingly fond. After our bountiful repast, Irvey and the Doctor burned some tobacco, then we were once more afield, working over some large grain fields west of the barn for doves. We found some on the stubble but they were wild and we killed but few, and then, while I was some distance from my companions, they flushed three doves out of range. They flew around but did not leave the field, finally alighting on the top wire of a cross fence, where they sat apparently secure from harm.

At right angles, about fifty yards away from them, ran another fence with a slight growth of grass up to the bottom rail. I was on lower ground and decided to crawl to them, so I crouched low and made for the grass grown fence, keeping carefully out of sight. I crawled up to the fence and looked cautiously through the grass below the rail—they were still there. It was a very long shot and very carefully I parted the grass and put the gun muzzle through, then taking a deliberate sight, I fired the full choked barrel. Two of the doves fell from the wire and the other hearing the report and not knowing which way danger lay, rose and came right over me, and I killed it with my second barrel. "Pot Hunter?" Perhaps so, but if I had stalked a timid deer, peacefully browsing, with the same care I had used to approach those wary doves, and had shot the unsuspecting animal dead in its tracks, it would have been considered the very acme of sportsmanship. "Consistency, thou are a jewel."

RETURNING to the barn, Dick soon had his team ready and we were off to shoot over the near by farms. This is one of the great charms of this style of shooting, the constant change of scene and surroundings. As the afternoon drew on the plover did not seem so timid and afforded better shots. One big fellow allowed us to approach quite close. It was Doc's shot, and he missed with both barrels. Irvey "guyed" him unmercifully, but pride goes before a fall. Soon after this, Irvey made a long shot at a plover standing near a large tuft of grass and killed it. Stepping from the surrey, he started to pick up the bird without putting in another shell, whistling a popular air as he did so; as he stooped for the dead bird, from the tuft of grass almost in his face, up sprang another that had been lying like a quail. Irvey was taken completely by surprise and badly "rattled." Throwing up his

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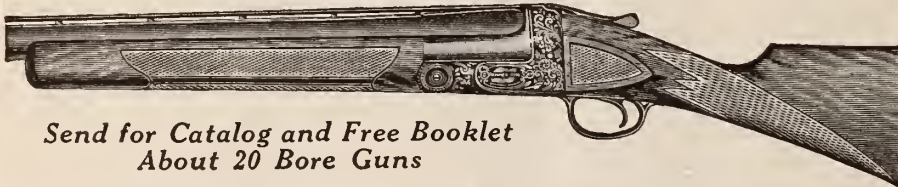
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gun he snapped his empty barrel, then recovering, fired the other, but scored a clean miss. Loud and long the Doctor laughed, and when Irvey shamefacedly returned to the surrey, Doc sarcastically said: "You don't need a gun, you want a fishing pole, or a crab net; why any nimble boy, ten years old, could have caught that plover with his bare hands." Most of the plover would be located by their mellow whistle or by seeing them "skulking" through the clover aftermath, but occasionally one would spring from cover like a meadow lark, requiring quick shooting.

Late in the afternoon we returned to the Wyckoff farm, and taking our game from the spring house, headed back for our starting point, some seven miles away. On the road we passed an abandoned farm, that looked very promising, so we drove over the weed grown fields with good results. At the back of the farm Doc and Irvey alighted and walked back to the road over an old wheat field that had quite a "volunteer" crop of wheat standing, hoping to find some doves, while I stayed in the surrey, for I am quite lame at times from an old injury to one of my knees. As they were walking along about one hundred yards apart from between them sprang three doves, crossing in front of Irvey. He brought one down at a long distance, the remaining two, flying like the wind, passed the surrey at about fifty yards distance. Throwing up the little Baker, I swung about three feet ahead of the nearer dove, and pulled the trigger; just at that instant they crossed, and I killed them both. Grinning from ear to ear, Dick said, "Golly Boss, dat was a 'scrumptious' shot, you sholy done surprised dem birds."

We now drove directly for Irvey's, with the full glory of the setting sun behind us, and reached there as the evening shades were falling. After a hearty supper, the game was carefully packed under the buggy seat (for Irvey generously refused to keep any of it) and we were off for home, with Irvey's admonition to the Doctor to buy a good gun before he came again, ringing in our ears. We reached town, a little after eleven o'clock, and found the Doctor's wife sitting up for him, so I went in with him. We spread the game out on the kitchen table, and it made a goodly show, twenty-eight plover, and twelve doves, all in prime condition, truly a bag to be proud of. As we were admiring them, the Doctor's three oldest little girls, with giggles of glee, came scampering down the broad stairway in their "nighties" to see Papa's birds, while little Barbara and baby Fritz, slept the sleep of childish innocence.

HOW inscrutable are the ways of Providence! The good, the kind, the lovable, apparently die young, many just as the candle of life bursts into flame, others are snuffed out at middle life when the flame is burning brightest: while the cold, the mean, the miserly, burn to the socket. So in a few short years, the inexorable hand of fate beckoned, and the genial Doctor, with his lovely wife, passed from our midst, leaving their little flock behind. Of the four

girls, three are happily married, while little Fritz, the apple of his loving father's eye, is a stalwart man of twenty-one, wearing the Forester's Green uniform of his country's "bird men."

Of this world's goods, I have but small store, but in memory's vaults I have hoarded a great treasure, of days like these, by forest and stream, and marsh, and gunning point, and rushing tide ways, all marked with the magic red letter and laid carefully away, more precious by far than rubies and fine gold; and when the days of gloom descend upon me, as come they must to all things mortal, I take them from their wrappings one by one and live them over again, and then the gloom dispels, again the sun shines brightly on life's pathway, and I press bravely on towards the ever nearing goal, the end of all declining years.

JAMES ALEXANDER HENSHALL

(CONTINUED FROM PAGE 467)

A NEW tobacco barn had just been completed on the plantation, and a barn-warming dance had been arranged for the next Saturday night. The neighbors for miles around were invited and great preparations were being made for the event. An important feature was to be a supper at the close of the festivities. Our little band volunteered its services to furnish the music. A platform was built at one end of the room for its accommodation and a chair placed in front of it for uncle Cyrus, the plantation fiddler, who was to call the figures for the quadrilles. A long table had been built along one side of the room, covered with a tablecloth taken from a bolt of new muslin.

The guests began arriving late on Saturday afternoon in carriages, wagons, boats and on horseback and all were on hand by early candlelight. What with milady's maids, drivers and boatmen, the colored folks were well represented. On the evening in question all of the lamps available were placed around the four sides of the room, and numerous sconces, furnished with candles, were also utilized. Two improvised chandeliers had been constructed with two pieces of thin board placed crosswise which were also furnished with numerous candles and suspended from the roof, so that ample provision had been made for a very fair illumination.

As it was to be an informal affair the guests were not expected to appear in evening costume. The ladies were plainly but neatly dressed, and the gentlemen wore their second best. Some of the men servants, however, who were to serve as waiters during the supper, were conspicuous in plug silk hats and swallow-tail coats of a very ancient vintage, and probably had seen service at the inaugural balls of Presidents Jackson or Van Buren before being handed down to their present owners. A group of women servants seated in a corner of the room were clothed in raiment glorious to behold and of such dazzling colors that their dark corner was thereby lighted up

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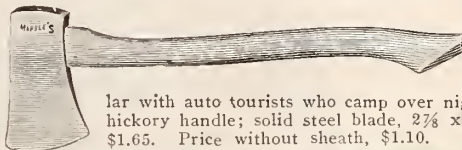
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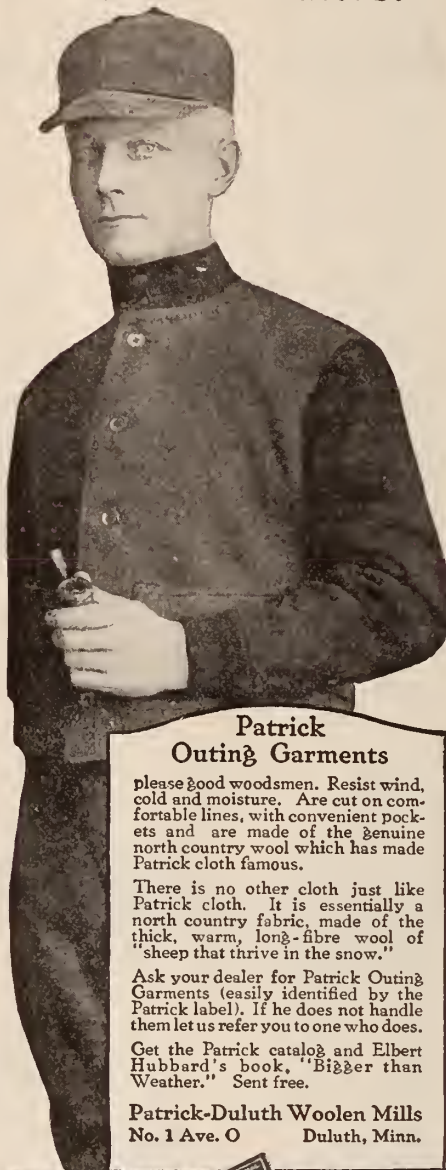
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with true artistic effect; but Aunt 'Randy declared that she would not be seen clothed in such "Babylonish garments."

The dance was voted a complete success and at its conclusion Uncle Jasper, the foreman of the plantation and the neighborhood preacher, mounted the platform and in stentorian tones said:

"I wants to notify the cullud fokes who may be present on dis joyful and gratifyin' 'casion for de inner man, dat a 'ligious sarvis' will be held in dis room to-morrow mornin' at ten o'clock sharp for de good and glorifyin' of yo' souls."

Aunt 'Randy informed us that he was a "convincin' preachah and a pow'ful ex'ortah."

Supper was then announced and the guests surrounded the long table which groaned—that is the proper word—under a weight of oyster pies, chicken pies baked ham, stewed soft crabs, deviled hard crabs, Maryland fried chicken, Maryland beaten biscuits, Sally-Lun, shortcake, egg-bread, Johnny-cake, fruit pies of all kinds, old-fashioned Maryland pound cake and sponge cake, jellies, marmalades, hot coffee, tea and milk. Aunt 'Randy was in her element, and the way she hustled the waiters around would have gladdened the heart of the headwaiter of Barnum's Hotel. At last the joyous affair was at an end, but never to be forgotten. After the table had been cleared and everything put in order, the room was left to Uncle Cyrus and the "cullud fokes," who "danced all night till broad daylight and went home wid de gals in de mornin'."

ON Sunday morning at the appointed hour a good congregation of colored folks was seated on benches and improvised stools. Some of the guests who lived at a distance remained over night and their servants were added to the expectant audience. We boys were seated outside under an open window, where we could hear everything that transpired within. This may account for the fact that I remember the sermon almost word for word.

Uncle Jasper then ascended to the platform, took a drink of water, wiped his mouth with a red and white handkerchief, coughed, and said: "We will all stand and sing the hymn beginnin' "Mary and Martha has jist gon' along." The hymn was sung with feeling and with good harmony. Then the preacher began as follows:

"My deah heah'ers, we's 'sembled dis mawnin' in dis sacrid ediface fo' a breek seas'n ob devotion. Ise gwine to show dat a man wat is bo'n ob a woman is as full ob sin as de spawks dat fly upwa'd. We fin' in de ole Test'ment de story ob Isaac and his two sons, Esaw and Jacob. He loved Jacob de best twell de young man sold his birtherite fo' a mess o' potash; den he say, 'Esaw I love but Jacob I hate 'im.' We will now take up de stoh'y ob two udder young men from a chaptah ob de Axe ob de Pos'les. Dese stoh'y's is 'tended to show how de Devil he can bring out de sin dat is bawn in a man an' leab him in a los', ruin'd an' undun condition.

"Wunce dar was an ole Prodigal who


had two sons, bofe boys—fo' bettah aw fur wuss. De oldes' son was a shiff'less, lazy young man wat did nuffin but ride all day on his long-tail hoss, and loaf 'round de tav'n all de night playin' cawds and drinkin' mint jewlips. De younges' brudder wus a ha'd wukkin', 'noligible young man who run de plantation, dun all de choahs, and lukk'd arter de fiel' han's. He sed his prah's reg'lah, went to bed wid de crows and got up wid de chickens. He sed it wus betteh to be a do'keepah in de house ob de Lawd den to be cap'en ob de big steamboat *Pocahontas*.

"One day de ole Prodigal tuk de eldes' son to task fo' his wickedness, but it only med him wuss and 'vengeful. He sed he wuz ti'ahd ob de fawm, and if his fahder 'ud gib him his sha'h ob de patrimoney he wud go 'way an' seek his fohtune in a fah off country. So de ole Prodigal got a bag o' money fum de bank fur de wuthless son, an' he went 'way off yander. He had mo' dollahs den sense and soon spent his substance in right'chus livin'. He dun loss' all his patrimoney in hoss-racin', cock-fitin' and playin' cawds and dominose. Wen his money wus all gone his fahweathah frien's laffed him to scawn. At las' he wuz 'bliged to hiah out to a man to feed his hawgs. He was used to high livin' but now he had to cum down to coa'se food lak hog an' hominy and hoe cake, an' his pomp'ed stomick rebelled 'gainst such po' vitalls. Den he sed, 'Oh, shucks, I'll go back to de ole fa'hm and hire out to my fahder.'" So off he stah'ted, clothed in rags an' bar'footed, along de dusty road.

"One day de ole Prodigal saw afar off a man ragged an' dusty; but at las' he med out dat it wuz his long lost son, an' runnin' to neet him he fell on his neck and like to bruk it. He tuk him to de house, gib him a wahn bath, clothed him in weddin' gyarments, put a gol' ring on his fingah, and sot him on de front gallery and sed: 'dis is my son who wuz ded but is now cum to life; dis is my son who wuz los' but is now foun'.'" Den he say he gwine gib a gran' feas' fo' his son. Sed he gwine to kill a fat caf' an' hav' a bobbycue. Den he sen' invites to all de quality fokes in de county, to cum to de bobbycue to welcum his son who wuz los' but is now foun'.

Den de good son cum 'long, an' wen he see his brudder rigged out in fine cloe's an' a gol' ring on his fingah, he got mad an' sed to his fahder, 'I hab wukk'd on dis fawm as man an' boy all my life, but no fat caf' was eber bobbycued fo' me, an' no gol' ring was eber put on my fingah.' But de ole Prodigal sed, 'my son all I hab is fo' yo'; de fawm, de stock an' all de hairyditaments; yo' has yo' rewa'd.'

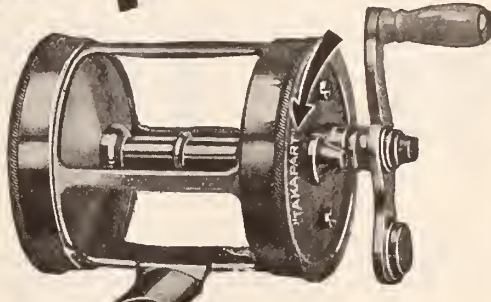
But de naybo'ahs nebber had no use fo' de eldes' son, an' dey refuse to go to de bobbycue, an' dey all wid one accord began to mek excuse an' sen in dar regrets. Den de ole Prodigal got mad an' sent his servants out in de by-ways and hi'ways an' tol' dem to fotsh in all de po' wite trash, de free niggers and beggahs an' brung 'em all in to de feas.' So dey all rush'd in, rag, tag and bob-tail



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2. Simplicity
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5. Value



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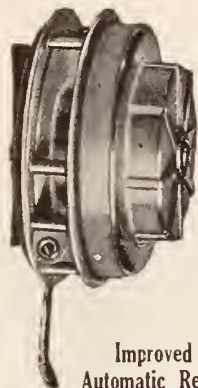
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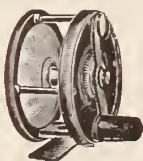
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lak a swahm o' locusses. Den as dey wuz nebbber use to good vittals dey waste mo' dan dey eat. An' aftah de bobby-cue wuz ober dar wuz nuffin leff but two small catfish an' five small loaves. An' now brudder Cyrus pass de hat wile we stan' an' sing On Jurdan's stohmy bank I stan' an' cast a wishful eye."

WHEN we rose on Monday morning it seemed like a lull after a storm.

The guests had departed on Sunday afternoon, driving, riding or sailing away amid such cheerful but regretful exclamations as: "Good-bye," "God Bless you," "Come and see us right soon." We boys began, wistfully and silently enough, to make preparations for breaking camp and returning home, to again enter school and resume the studies which had been sadly neglected during the interim. But the fragrant memories of those happy days will abide with us forever.

What with shooting shore-birds, young ducks and squirrels; trolling for striped bass and bluefish in the channels and tide-rips; fly-fishing and still-fishing in the seclusion of the sheltered bays for weakfish, white perch and croakers by day; coon hunting and 'possum hunting and sitting around the campfire by night; recounting the adventures of the day; making merry over the mishaps, and planning for the next day—we spent, taking it all in all and by and large, the most enjoyable, delightful and soul-satisfying outing that I have ever experienced; for it occurred at a time when boyish enthusiasm and youthful exuberance of spirits were at their highest pitch, and when our receptive and appreciative faculties were fresh and vigorous.

OUTING PREPARATIONS

(CONTINUED FROM PAGE 484)

most of the inexperienced fail in. A good rugged, but not heavy, cruising shoe, coming half way to the knee, is all that is needed for summer and early fall. For winter, the writer has found that a comfortable pair of light weight shoes covered with a good, strong pair of four-buckle overshoes make the warmest as well as the lightest footgear. This rig is not so bulky as arctics and are as warm. One can also wear lighter socks, one pair of light, cashmere and one of cotton are enough for camp activities with the thermometer at 20 degrees below.

We will leave the selection of the gun and rod to the camper, as he will take the ones that he wants anyway. But he must carry a good sheath knife and a belt axe.

THE first question of the inexperienced camper, when he has read the above list of necessities, will be: "How are three men going to carry all the stuff?" The answer is, a pack for each, made from drill about the same weight as the tent. It should be fitted with both head and shoulder straps. The head straps take the whole weight of the pack, allowing the arms free movement in climbing

steep places. One man can carry all the food and his blankets with gun and rod. The second takes the tent and stove, his blankets, gun and rod. The third should carry the tinware, his blankets, gun and rod. And if there are any other knick-knacks left, they can be given to the one who has the least awkward pack to tote.

A REPAIR kit can be made from oil-cloth to hold needles for repairing the tent, packs and clothes, and can be sewed to the inside of the coat. Do not carry thread on spools. They are too bulky. Wind off the thread on cardboard if you cannot buy it put up this way. A few extra shoelaces may go in this kit for future use; a compass that can be carried in the watch pocket makes the whole.

One of the others should have a "first aid" kit in his pack filled with several bandages and ointment for possible and probable emergency. If it is fly time do not forget some skeeter netting for your sleeping hours. Some ointments are fairly good, but most of them are offensive as well as useless. A square of oilcloth to serve as a table cloth is nice to have but not really necessary.

Leave your fishing basket at home. A forked stick will do as well and you can throw it away when it has served its purpose. Among the other things that it is well to leave at home are the gun covers—keep your gun well oiled instead, and the extra hats and caps. An old felt will answer all needs. Bait—you can dig it; alarm clocks—you won't need one in the woods; musical instruments—none, except a good mouth organ. The birds will supply you with music. Water canteens—you will find all the water you want and more too.

If you are going into the woods this year, follow these suggestions as nearly as possible and you will pass your time with greater comfort and security than ever before, but remember, these suggestions are for three men during a period of three weeks and make your preparations accordingly.

AS TO THE WAYS OF THE PERCH

(CONTINUED FROM PAGE 471)

promise of unsettled weather it was agreed, if the conditions continued, to meet on the bridge the following morning at an early hour. Mr. Adams was to notify Mr. Woodhull. Matt, while doing his evening chores came suddenly face to face with his bait pail doing service to the chickens. "Crickey," he said, "it went plum out'en my mind, now most anythin's good enough for chicken drink-in' but Aunt Mary's Aunt Mary, an' the's no tellin' what she'll say." He scratched his head reflectively.

BEFORE it was fully light the next morning she heard Matt in his room, then going lightly down stairs. By the time his work was done and he was back in the house breakfast was ready, much to his delight. "I was thinkin'," he began, as he drank the last of his coffee,

OPEN SEASON FOR HUNTING OR FISHING IN MAINE

Together with LIST OF LICENSED GUIDES

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DEER, Oct. 1—Nov. 30
MOOSE, Nov. 21—Nov. 30
BEAR, No close season

UPLAND GAME

RABBIT, Oct. 1—Mar. 31
SQUIRREL, Oct. 1—Mar. 31
QUAIL, No open season
GROUSE, Oct. 1—Nov. 30

MIGRATORY GAME BIRDS

DUCKS, GEESE, BRANT, COOT, Sept. 16—Dec. 31
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WOODCOCK, Oct. 1—Nov. 30
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FISHING

Land-locked Salmon, Trout and Togue, open season is from time ice is out of the pond or lake fished in the spring until Sept. 30th.

Open season on white perch and black bass, in lakes and ponds, from June 20th until Sept. 30th. The law provides, however, that it shall be lawful to take black bass, with unbaited artificial flies only, from the time the ice is out of the lake or pond fished in the spring until June 20th following.

Open season on land-locked salmon, trout and black bass in Sebago lake and Long pond, Cumberland county, is from April 1st to Sept. 30th, inclusive.

In Thompson pond, in Androscoggin, Cumberland and Oxford counties, closed season on land-locked salmon, trout and togue is from Sept. 1st to Jan. 1st, of the following year.

In Brooks, Streams and Rivers, open season on land-locked salmon, trout and (sea) salmon is from the time the ice is out of the brook, stream or river fished in the spring until Sept. 15th; on black bass and white perch, from June 20th until Sept. 30th.

DIRECTORY OF LICENSED GUIDES

Licensed Guide.—Non-residents must be in charge of a registered guide during the months of May to November, both inclusive, when camping and kindling fires upon wild lands while engaged in hunting or fishing. No guide can guide or be employed by more than five non-residents in hunting.

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- | | |
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| Clayton K. Arbo, Brownsville, Maine | John B. Fecto, Skowhegan, Maine |
| William W. Atkins, Bridgton, Maine | Perley O. Foster, Bridgton, Maine |
| George W. Ayer, Olamond, Maine | Arthur G. Fox, Centre Lovell, Maine |
| Walter L. Arnold, Onawa, Maine | Fred W. Fitch, East Sebago, Maine |
| F. T. Authier, Greenville, Maine | Jean M. Field, Rangeley, Maine |
| Ira A. Andrews, North Lovell, Maine | Will P. Forsythe, N. Anson, Maine |
| John M. Baker, Waterville, Maine | Elmer A. Foss, N. Waterboro, Maine |
| Gus Bernier, St. Pamphile, P. Q., Canada | Charles P. Gray, Freyburg, Maine |
| Lee Bridges, Wilton, Maine | Millard E. Gleason, North Belgrade, Maine |
| Russell H. Bethell, Norway, Maine | Kenneth C. Gurney, Ctr. Lovell, Maine |
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| William A. Carlow, Alexander, Maine | Bert Herrick, Haines Landing, Maine |
| Harry James Carroll, Rumford, Maine | Sumner Ricker Hooper, Kineo, Maine |
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| John R. Clarke, Kingfield, Maine | Earl Linwood Hewett, Portage Lake, Maine |
| John M. Childs, R.F.D. 32, Mt. Vernon, Me. | James Emery Haley, Rangeley, Maine |
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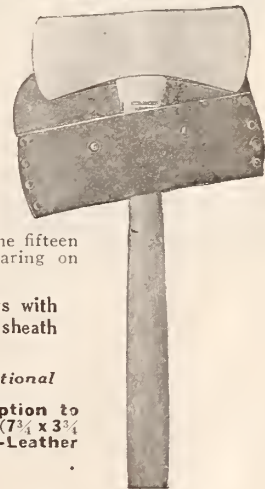


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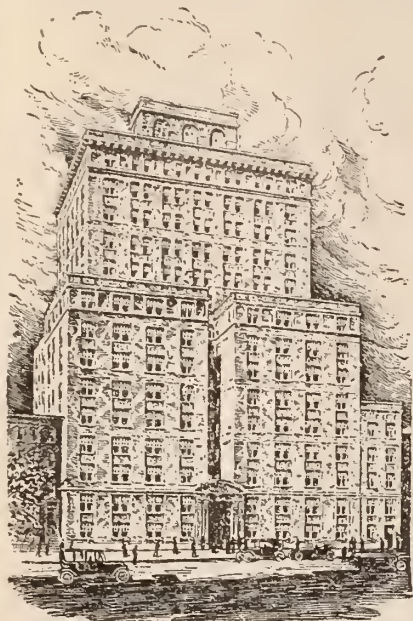
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"that bein' out all day I'd best take some old 'thing to put fish in, a'most anythin'll do. Perch scale mighty hard when they dry out, b'sides they're fresher if wet moss or grass is kept on 'em. I 'spose the old 'tin blickey" I brought up for the chickens would do."

"You never brought that old tin pail up for chickens more'n I did," she snapped back. Matt felt a tremor of doubt about the success of his plan. "But," continued his aunt, "whatever you did bring it from the old dump heap for, goodness knows. I 'spose fish are better if kept wet. I expect I can find something to answer for a day. But," she added, "you aint caught your fish yet to put in the pail." Matt vouchsafed no reply but put on his coat. "In case it rains," he said. Aunt Mary handed him a package which was lying on the table saying: "You'll want a bite to eat if you stay all day." Gathering up his trappings he set off for the bridge with a light heart.

He was not kept waiting as both men were in sight of the bridge as he reached it. Minnows were plentiful near the mill, in shallow water, where they hovered safe from their numerous enemies and Matt's "tin blickey" was at last in service as a minnow pail, after the lad had sorted them over as to the right "perch size." Mr. Adams insisted on rowing the boat, Matt directing the course until they were well up to the head of the stream where snags and lily pads were plentiful.

"We'll try once here," said Matt, "I've took good ones from around here. The's big ones in this pond if you'll find 'em. I'll change the water on the minnies. Don't want 'em to turn belly up; they're weak when they do that."

The boy poured a quantity of water from the pail, then, scooping with both hands, threw fresh water back. "I do it that way," he said, "seems to give 'em more air, anyhow they come to quicker." Mr. Adams had a lighter rod and smaller reel than on the previous day. The boy noticed it but said nothing.

When ready to adjust their hooks, Mr. Adams presented the other two with snelled New York trout hooks. It was the first the boy had ever seen and he examined closely the neat wrappings and tied loop. Finally he asked: "What's that made of?" indicating the snell. "That is gut," said his friend, meanwhile watching, out of the corner of his eye, the expression which came over the lad's face. "Whose?" laconically exclaimed Matt and said not another word. He felt he was being joked about the matter. Both men laughed heartily and then Mr. Adams explained the mystery of the silk worm gut at which he seemed first doubtful, then pleased. Mr. Woodhull used worm bait, the other two, minnows. Matt hooking his lightly through the lips while the older man hooked his through the skin just under the fin on the back, Matt contending that perch allus took minnies head first and was surer to be hooked his way. While bottle corks were used by both Mr. Woodhull and Matt, Mr. Adams had a slender painted float which, with the light sinker he used, balanced nicely in the water. Mr. Woodhull got several bites

on the worm bait, the cork bobbing along on the water. "The's sunnies," said Matt, "better fish over where the water's deeper." "There's a perch," he said quickly, as Mr. Adam's float went down. "They never nibble, they jest grab it an' scoot. The white ones do; the yellow feller's are some slower, but fight hard." The lad watched with keen interest as Mr. Adams worked the fish around the boat on the slender rod and finally boated it without the aid of a net. It was of about a half pound weight and nicely silvered in the clear water. The atmosphere was heavy and threatened rain. Both men had light rain coats with them but Matt had but little concern for himself if fish would bite. Up to noon, when they rowed to the bank to eat their lunch not more than a dozen fish had been taken and all much of the same size as the first one taken by Mr. Adams. "I've allus seen," said the boy, "that perch are 'bout the same size in one place. Wonder if they're just the same nest full goes together? Seems 'ough it might be so. I found a lot of stuff once looked mos' like jelly on a stick. Mr. Silvers, the man at the mill said 'twas perch eggs all stuck together." "Perch," said Mr. Adams, "are widely distributed all over the world. I have taken them from many waters and they are a fine game fish for their size. They will bite at a great variety of baits, but in salt water they are partial to shrimps." "I never knowed they went into salt water," said Matt earnestly. "Oh, yes," responded Mr. Adams. "I have seen tons of them that were taken in nets in the bays at different points and they have been found with herrings in the open ocean. Although I have never heard of the yellow perch being anywhere but in fresh water.

To keep our shrimp alive we get very fine sawdust and cover them. They live well, sometimes two days or even longer. The Delaware River fairly swarms with them and great quantities are taken there every year.

Around old piling or patches of lily pads, anywhere where the current is not swift they are to be found. They will bite at almost any kind of bait there, bits of clam cut up, fish worms or live minnows, but their favorite is always shrimp. And it is strange, when I think of it, I have never seen as large ones from salt water as from lakes or ponds like this." "Well, the's big ones in here if we can find 'em," said Matt, "an' we'll try 'tother side of the pond the's a wash down from a hill there by the big oak an' a gravel point runs out to deep water." Matt, standing up in the boat as they went across, as he said "to get the p'int's." "The's never no sense," he said, "sloshin' round in the water when fishin' for perch. They scare easy. There, don't pull no more, jest 'let the boat swim in herself," and quietly lowering the weight overboard, which served as an anchor they came to rest. Matt had changed the water several times on the minnows and they were active in the pail.

FROM where they sat they could plainly see the gravel where it had been washed down into the water

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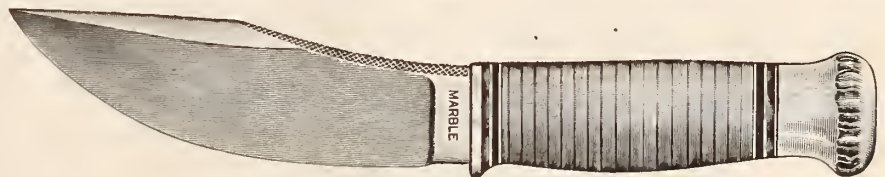
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and they began fishing in the deep water near by. "The stiller we keep, the better, as we are in the open here," observed Mr. Adams, "as Matt says, they scare easily sometimes." "I told you the big ones was here," said Matt, as his float went under with a rush and the whip-like pole went double and the line cut the water around the boat. "G'mme the net." But suddenly the pole went straight again and float and hook sprang up in the air. "Gosh a'mighty, he's gone," said the boy, "he's an' old buster and he examined the hook critically as if to find some fault there. With hook again in the water, if a close watch had been made on his movements, it would have been seen that he never permitted his rig to be completely at rest; just a slight movement with tip of rod was kept up and it was not long before "there she goes again" was heard and again the pole was double and an excited boy was swinging first one way then another, keeping a taut line on the hooked fish. "Git the net," he said and for the first time their improvised net was brought into use and, as Mr. Woodhull said, it worked like a charm. Matt added, "good as a boughten one." The perch was a beauty, at least one and a half pounds in weight and beautifully marked. Matt was triumphant. "As big as ever I caught," he said. In the confusion and admiration of the fish, other tackle was for a moment forgotten and of a sudden Mr. Woodhull's reel screeched and the light rod went overboard with a rush but was caught just as the butt struck the water, and such a battle as that little rod had. Skillful handling, however, saved the day and the fighting fish was brought to the net, a mate for Matt's. "Now," said the latter, "don't thrash 'round in the boat none and we'll get some." It was a great catch of beautiful fish they made that day and one long remembered by the three and often talked over. A few large yellow perch were taken just before dusk as they moved away from where they had taken the white ones. The first being taken by Mr. Woodhull who was trolling his bait behind the boat. They halted and fished the grounds over. The strike could be told easily as being slower, but the fighting quality was equal to the one put up by their silvery cousins. Mr. Woodhull soon gave up the use of worms and used minnows, keeping his end of the boat well represented.

Just as they were quitting, in fact both Mr. Adams and Matt had their tackle put up, Mr. Woodhull received a strike which sent a thrill through them all, the line cutting the water at all angles and with a speed that was phenomenal. The pliant pole was doubled sidewise and all shapes, as Matt said. Then a pickerel of at least five pounds leaped into the air and was off like a flash. "Gosh a'mighty what a pike," yelled Matt, "I knowed the's big ones here, pity you had on a little hook; I seen a man catch one right over there one day, weighed six pounds and a half. Applegate his name was; we called him gentleman John. He was allus dressed up like a dude. I've seen him fishin' in the rain with a plug hat on. Say,



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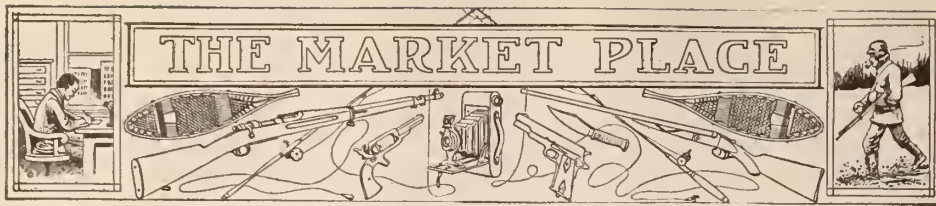
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(Continued on page 511)



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it looked funny," and Matt giggled. The more the two men were with the lad the more they were impressed with his sterling worth. Uncouth as he was and often unkempt there was ever with him the impress of sincerity and never a trace of vulgarity.

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"When the water cools down some we'll go pikin' over these ponds some day an' if we don't find 'em in one we will in t'other. Seems tough they go over a dam when the water's runnin' plenty, wonder if they do?" continued Matt. Good nights were said, but not until they had seen that Mr. Silvers, the owner of the mill and boat, had a liberal supply of fish. Then each passed on to their respective domiciles

*"Nor let the Muse in her award of fame,
Illustrious Perch, unnoticed pass thy
claim."*

SOME ASPECTS OF STREAM POLLUTION

(CONTINUED FROM PAGE 464)

THE Report of the New York Zoological Society for 1907 contained an article on *The Pollution of Streams*, in which mention was made of the widespread practice of polluting waters with the refuse of sawmills. Two of the pictures in this number of FOREST AND STREAM show how sawdust is thrown into the Delaware River. One of the mills is situated at Rock Eddy, on the East Branch of the river above Pepacton, New York. The other is also on the East Branch, above the mouth of the Beaverkill. Year after year these, and other mills like them, throw tons of their waste into one of the finest black bass and canoeing streams in New York.

It is an amazing fact that there are over six hundred concerns of this sort in the State. Sawdust blackens the water and settles into the gravel beds, making them unsafe for fish eggs and fry. Government experiments have shown that sawdust in the water promotes the growth of fungus on fish eggs and kills both eggs and young fishes.

There can be no more inexcusable practice than that of disposing of sawdust by throwing it into a stream. There are always places on land where it can be deposited without its becoming a nuisance, and it can always be burned. The numerous angling associations of the United States can render a most important service to the country by forming leagues for the enforcement of existing laws against the pollution of waters by sawdust and other wastes injurious to fish life. At present it is almost impossible to prosecute offenders owing to the existence of local sentiment in favor of the industries which offend. Very little can be expected from local juries. The fight against the pollution of angling waters must be made by powerful State organizations, who can keep up the struggle from a broad point of view, until the justice of their side results in success and headway is made.

CONCERNING ACCIDENTS

CAUTIONARY SUGGESTIONS TO THE HUNTER WHO CONTEMPLATES GOING OUT AFTER GAME THIS FALL

By J. G. BROWN



THE recent suggestion of a Nimrod that real experiences of fellow hunters who have had accidents or near-accidents, should elicit a wealth of publishable material, even without taking account of the narratives of the "didn't-know-it-was-loaded" kind. For what hunter, careful though he may be, has not made serious mistakes which have resulted, or almost resulted, in tragedy? In the course of over twenty years of hunting on two continents, under many different conditions, the writer has had enough experiences of this kind to fill a book, although he has had a scientific training and is generally regarded as a person of cautious and careful habits in field as well as in laboratory.

Usually the most dangerous period in a hunter's life is the beginning, when he is just finding out how easily an accident may occur with a weapon as powerful as a gun. The writer's first scare came in hunting rabbits in a newly-cleared field in Michigan. Bunnies were as plentiful as flies (they are so scarce now in the same region that they are protected) and the procedure was to climb on top of a brush heap, jump up and down and shoot as the game scampered forth. A younger brother was the hunting companion, but his short, fat legs were ill-adapted to wading through loose brushwood, so the gun bearer, armed with an old, bored-out Harper's Ferry musket, which for weight would put a Browning machine gun in the shade, was forced to act both as beater and shooter. Under the circumstances, accidental discharge of the gun was sure to occur sooner or later. Perched with both feet in loose brush amid the excitement caused by the scurrying game, overbalancing was easy and the fortunate thing was the missing of the younger boy's head by a hair's breadth. The lesson was well-learned and thereafter someone else did the beating stunt.

What might have proved a really serious affair once came into the experience of the writer while deer stalking in Northern Michigan. He had gone out on a gray November day with an excellent companion, a skilled hunter. The snow was perfect tracking snow and the hunters soon found abundance of fresh sign just where a cedar swamp skirted a hard maple ridge. It was decided that one man should take the north side of the ridge, the other the south side, proceeding leisurely around to a common meeting point. Half an hour later the writer heard two quick, consecutive shots followed by silence and, knowing the prowess of his companion, he decided that ven-

ison was probably to be dressed. He therefore changed his course to cross the ridge, meanwhile keeping alert for game. Thus proceeding through an open, park-like forest of virgin maple, undergrown with the dark green, snow-laden "shintang" or ground hemlock, he pursued his way when suddenly there appeared about a hundred yards ahead a suspicious movement behind a large fallen hemlock. A cautious glance disclosed what appeared to be a grazing deer. Instantly the rifle barrel was brought to bear and the trigger finger was ready, but the deer remained with head down so long that suspicion was aroused. The puzzling situation was finally cleared when the "deer" stood erect. It was the other hunter who had stooped to dress the game which had fallen to his rifle. Was it surprising that the writer lost several good shots that day? He was really to be complimented on his coolness, perhaps. The fault lay chiefly with his partner in the hunt, for he had on a furze coat of a tan color to exactly match a deer's coat. The writer suffered more intense misery that day than he has ever known from other causes on a hunting trip, and to this day he hates the sight of a tan coat on a deer hunter. Had he been a "paper target" sportsman, the chances are that his whole life would have been marred by a deplorable accident, largely because of another's lack of thought in the selection of a hunting jacket.

AN old French-Canadian woodsman often used to repeat that an inexperienced hunter was sure to lose some game and might lose his life by over-confidence. "Always re-load, even if your game looks as dead as a door-nail," he would say. It took a demonstration to impress the value of this bit



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of woodcraft. Just at dusk one evening at the edge of a beautiful forest, the writer came unseen upon a buck and a doe gazing longingly into a farmer's clearing. He had long been without fresh meat, for the family with whom he boarded were pioneer settlers and far from town. He was doubly anxious to "make good" therefore, first because of this fact, second, because, although he had worn out several perfectly good pairs of hunting boots, he had never yet brought home any venison. He aimed carefully for the exposed shoulder and let go. At the shot the buck reared and fell over sideways into an old elm top. With a shout the hunter hurried forward and had almost reached the stunned animal when with a bound the buck regained his feet and, to the amazement of the young sportsman, galloped off in long leaps. The rifle was at length raised, but a dull click was the only response to the trigger pull; no cartridge had been pumped into the empty chamber after the first shot. This lesson was keenly impressed and probably later saved the writer's life, for bucks do not always bound away when wounded. The next time the rifle was ready. A buck and two does stood in open hardwood on an old, deeply-worn runway toward which a bevy of partridges had been driven. Quickly changing from bird shot to buck-shot, the hunter let drive at the buck. Immediately the animal started down the runway toward the swamp on the run, while the does took the opposite direction and the writer mentally recorded his score a miss. This time, however, he placed a fresh cartridge in the chamber before advancing. An examination of saplings on either side of the spot where the buck had stood showed clearly that the animal must have been hit. Just as the examination was concluded a rustling sound in the leaves down the trail announced the hurried approach of something, and the writer gazed upon an enraged deer coming swiftly forward, antlers lowered, neck bristling and eyes flashing fire. No statue ever stood more immobile than the author for a second of time. Then when the brute was within ten or twelve feet the shotgun barked,—over the deer's head it is true, in fact at a distance of twenty paces the buckshot struck a tree fully thirty feet above ground, but the deer was stopped. His momentum was sufficient to plow up leaf mold in narrow furrows with his sharp fore feet. He sat down on his haunches, then wheeled and made off, and the efficient training of a previous lesson in the hunter's experience had been demonstrated in a highly satisfactory manner. The ethics of true sportsmanship require that continuous caution be exercised.



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OPEN SEASONS FOR GAME IN THE UNITED STATES AND CANADA, 1919

[COMPILED BY GEORGE A. LAWYER AND FRANK L. EARNSHAW.]

THE OPEN SEASONS HERE SHOWN ARE INCLUSIVE OF BOTH DATES. When the season is closed for a fixed period the date terminating the closed season is given. The county seasons of North Carolina may be had on application to the Secretary, Audubon Society, Raleigh, N. C. Local exceptions in Idaho, Tennessee, Virginia, and Washington, will be published in "Game Laws for 1919."

** Under the regulations for the protection of migratory birds the season is closed on swans, wood duck, cranes, curlew, willet, godwit, upland plover, and all the smaller shore birds in the United States and Canada, and on band-tailed pigeons in the United States. Owing to damage to rice crops in the South, the Secretary has ordered that bobolinks, commonly known as redbirds or rice birds, may be killed by shooting between half an hour before sunrise and sunset of any day, from September 1 to October 30, inclusive, in New Jersey, Pennsylvania, Delaware, Maryland, and the District of Columbia, and from August 16 to November 15, inclusive, in Virginia, North Carolina, South Carolina, Georgia, and Florida. Redbirds so killed shall not be sold, shipped for sale, or wantonly wasted or destroyed, but may be used for food by the persons killing them or transported to hospitals and charitable institutions for use as food.

ADDITIONAL PROVISIONS AND EXCEPTIONS.

- Alaska.—Moose (male), caribou, sheep, north Lat. 62°, Aug. 1-Dec. 10.
Caribou on Kenai Peninsula, and sheep on Kenai Peninsula east of Long. 150°, 1921. Killing of females and young of mountain sheep and deer, and mountain goat kids and fawns of caribou south of Arctic Circle, prohibited. Goat, in southeastern Alaska, east of Long. 141°, and on Kenai Peninsula, Sept. 1-Oct. 31. Large brown bear, south Lat. 62°, Oct. 1-July 1; north, unprotected. Deer on Duke, Gravina, Kodiak, Krusen, Long, San Juan, Suemez, Zarembo, Hawkins, Hinchinbrook, and Montague Islands, 1921.
Arizona.—Bobwhite quail, no open season.
Arkansas.—Gobblers, additional open season, Mar. 1-May 1.
California.—Deer (male, except spike buck), in Districts 2 and 3, Aug. 1-Sept. 14; in District 4, Aug. 15-Sept. 15; in Districts 1, 1j, 4j, 23, 24, 25, and 28, Aug. 15-Oct. 14. Mountain valley, and desert quail, in Districts 4 and 4j, Oct. 16-Dec. 31. Mountain quail, in Districts 1, 23, 24, 25, and 28, Sept. 1-Nov. 30. Bobwhite quail, in State, no open season. Sage hen, in District 4, no open season. For counties in each game district see "Game Laws, 1919."
Connecticut.—Deer, owner of agricultural lands, member of family, or employee, may kill with shotgun on own lands deer destroying fruit trees or growing crops, but such killing must be reported to commissioner within 12 hours. Coot (mud hen), gallinules, Oct. 1-Dec. 31.
Delaware.—Dove, Newcastle County, no open season.
District of Columbia.—Hunting permitted only on marshes of Eastern Branch, north of Anacostia bridge, and on Virginia shores of Potomac. Fox squirrel, unprotected.
Idaho.—Deer, mountain goat, in Adams, Blaine, Boise, Bonneville, Butte, Caribou, Clark, Custer, Elmore, Franklin, Gooding, Idaho, Jefferson, Lemhi, Lincoln, Madison, Power, Teton, Valley, and Washington Counties, Sept. 16-Nov. 30; in game preserves and rest of State, no open season. Elk, in Bingham, Bonneville, Fremont, and Teton Counties, Sept. 16-Nov. 30; in Clearwater and Idaho Counties, Oct. 1-Nov. 15; in rest of State, no open season. (See "Game Laws, 1919," for local laws on upland game birds.)
Indiana.—Coot, gallinules, Sept. 16-Dec. 20.
Kansas.—Fox squirrel, Sept. 1-Dec. 31; other squirrels, no open season.
Louisiana.—Deer, south of Vernon, Rapides, Avoyelles, and Concordia Parishes and Mississippi State line, Oct. 1-Jan. 20 (deer season fixed by commission.)
Maine.—Deer, Nov. 1-Nov. 30, and ruffed grouse, partridge, woodcock, Oct. 1-Oct. 31, in Androscoggin, Cumberland, Kennebec, Knox, Lincoln, Sagadahoc, Waldo, and York Counties. Commission may make local regulations on deer. (See also "Game Laws, 1919.")
Maryland.—Rabbit, in Dorchester, Nov. 10-Jan. 1. Squirrels, in Allegany, Sept. 15-Dec. 24; in Cecil, Aug. 25-Oct. 25; Dorchester, Sept. 1-Jan. 1; Frederick, Aug. 25-Dec. 24; Anne Arundel, Calvert, Charles, Prince Georges, and Talbot, Nov. 10-Dec. 24; in St. Mary, unprotected; rest of State, Aug. 25-Oct. 1 and Nov. 10-Dec. 24. Quail, in Frederick County, Nov. 10, 1921. Pheasant, grouse, in Dorchester, Harford, and Wicomico, and wild turkey in Harford County, no open season. Quail, woodcock, Dorchester, Nov. 10-Jan. 1. Woodcock, Anne Arundel, no open season. Pheasant, Baltimore, 1920.
Massachusetts.—Hare or white rabbit, in Bristol and Norfolk Counties, 1920; European hare, in Berkshire County, unprotected. Quail, in Dukes, Essex, Hampden, Middlesex, and Nantucket, July 1, 1922. Pheasant, commission may open season.
Michigan.—Deer, in Bay, Clare, Emmet, Gladwin, Huron, Lake, Midland, Missaukee, Newaygo, Oceana, Ogemaw, Oscoda, Otsego, Roscommon, and Tuscola Counties, 1921. Rabbit, north of Township 20 North, Oct. 1-Mar. 1; south of Township 21 North, Nov. 1-Mar. 1. Ruffed grouse, in Upper Peninsula, Oct. 1-Oct. 31; Lower Peninsula, Nov. 1-Nov. 30.
Minnesota.—Ruffed grouse, Oct. 15, 1920; white-breasted or sharp-tailed grouse, Sept. 16, 1922. Flowers, no open season.
Montana.—Deer, in Daniels, Hill, Judith, Rosebud, and Yellowstone Counties, Oct. 1, 1922; deer, grouse, prairie chicken, sage hen, in Rosevelt, Sheridan, and Valley Counties, 1921. Elk, in Carbon, Madison, Park, Stillwater, Sweet Grass, and parts of Beaverhead and Gallatin Counties, Oct. 15-Dec. 24; in Fergus, Mineral, Wheatland, Ravalli, and parts of Granite, Lewis and Clark, and Powell Counties, Oct. 15-Oct. 24; and in Flathead, Lincoln, Teton, and parts of Granite and Missoula Counties, Oct. 15-Nov. 30; in rest of State, no open season.
Nebraska.—Flowers, no open season.
Nevada.—Valley quail, seasons fixed by county commissioners, who may also close or shorten deer season.
New Hampshire.—Deer, in Coos County, Oct. 15-Dec. 15; in Carroll (except town of Moultonborough) and Grafton, Nov. 1-Dec. 15; in rest of State, Nov. 15-Dec. 15.
New York.—When date of open or close season falls on Sunday, season opens, except on migratory birds, or closes on preceding Saturday. Deer, in Adirondacks, Oct. 1-Nov. 15; deer (male), in Ulster County, nine towns in Sullivan County, and in Deer Park, Orange County, Nov. 1-Nov. 15; on own land in Columbia, Dutchess, and Rensselaer, with shotguns only, Oct. 1-Nov. 15. Introduced pheasant, protected by order of commissioner in several counties.
North Carolina.—For local laws, apply to Secretary, Audubon Society, Raleigh, N. C. Migratory birds, county season date controls when it opens the season later or closes it earlier than the Federal Regulations.
North Dakota.—White-breasted and sharp-tailed grouse, Sept. 16-Oct. 16; ruffed grouse, in Bottineau, Cavalier, Pembina, and Renville Counties, Oct. 1-Oct. 10. Coot, gallinules, Sept. 16-Dec. 31.
Oklahoma.—Bear, in Blaine, Caddo, Comanche, Kiowa, and Major Counties, no open season; rest of State, unprotected.
Oregon.—East of Cascade: Deer (males), in Union and Wallawa Counties, Sept. 10-Nov. 10. Quail, in Klamath County, Oct. 1-Oct. 10. Prairie chicken, in Sherman and Wasco Counties, Oct. 1-Oct. 15. Chinese pheasant, in Baker, Grant, Malheur, Umatilla, and Union Counties, Oct. 5-Oct. 12, and in Hood River and Wasco Counties, Oct. 27-Nov. 3. Sage hen, in District, July 15-Aug. 31. Grouse, in Union and Wallawa Counties, Aug. 1-Nov. 10.
West of Cascade: Quail, in Coos, Curry, Jackson, and Josephine Counties only, Oct. 1-Oct. 31. Grouse, in Jackson County, Oct. 1-Oct. 10; sooty or blue grouse, in Douglas County, Sept. 1-Sept. 30. Chinese pheasant (male), in Jackson County, Oct. 1-Oct. 10; in Coos, Curry, and Josephine Counties, no open season; balance of District, Oct. 1-Oct. 31. Waterfowl, coot, Wilson snipe, black-bellied and golden plovers, yellowlegs, Oct. 1-Dec. 31, and rufe, Sept. 16-Nov. 30, in Clatsop, Columbia, Multnomah, and Tillamook Counties.

CANADA

- British Columbia.—Open seasons on game fixed annually by Order-in-Council which will be available from Secretary, Game Conservation Board, Victoria, B. C., after August 15, 1919.
New Brunswick.—Deer, on Grand Manan and Campobello Islands, no open season.
Northwest Territories.—Additional season on caribou and sheep, Aug. 1-Oct. 1. Female caribou, mountain sheep, or mountain goat with young at foot, and their young at foot, no open seasons. Governor General in Council may, by regulation, alter seasons.
Nova Scotia.—Big game, on Cape Breton Island, no open season. Caribou (male), in Inverness and Victoria Counties only.
Ontario.—Moose, reindeer, caribou (male), south of Canadian Pacific Railroad, from Mattawa to Fort Arthur, Oct. 5-Nov. 20; north of railroad, Oct. 1-Nov. 30. Hare, also Dec. 25-Jan. 5.
Quebec.—Deer, bull moose, in Labelle, Ottawa, Pontiac, and Temiscaming, Oct. 1-Nov. 30. Black-bellied and golden plovers, yellowlegs, Wilson snipe, woodcock, in Bonaventure, Gaspé, Rimouski, and Saguenay Counties, Aug. 15-Nov. 30; in districts adjacent to tidewater, Sept. 1-Nov. 30.
Saskatchewan.—Deer, moose, caribou (male only), north of township 34, Nov. 15-Dec. 14; south of township 35, no open season.
NEWFOUNDLAND.
Newfoundland.—Caribou, also Aug. 1-Sept. 30. Grouse, unprotected.

Table with columns for State, Deer, Moose, Rabbit, Squirrel, Quail, Grouse, Prairie Chicken, Introducing Pheasant, Wild Turkey. Rows list states from Alabama to Wyoming.

MIGRATORY GAME BIRDS**

Table with columns for State, Duck, Grebe, Brant, Coot, Gallinules, Wilson Snipe or Jacksnipe, Woodcock, Rail, Dove, Antelope, Bear, Caribou, Elk, Goat, Sheep, Game Birds, and Other Game. Rows list states from Alabama to Newfoundland.

* Laws of 1919 not received. † Local exceptions. ‡ Certain species. § Males only.



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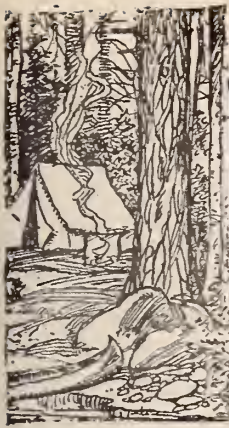
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A DEER HUNT IN THE BLACK HILLS

TELLING OF A TRIP INTO THE LIMESTONE COUNTRY OF SOUTH DAKOTA MADE
A NUMBER OF YEARS AGO WHEN FARE DAYS OF SPORT WERE ACHIEVED

By RAY FROST

WELL down toward the south-eastern foothills of the Black Hills country of South Dakota is the last remnant of what was once a bustling, thriving mining camp, with a population of perhaps 3,000 people. Stories of three dollars to the pan at Captain Jack's Dry Diggings had started a stampede that created it almost over night.

The presence of hundreds of rockers lining the little stream running through the town suggested the name Rockerville.

The pay-dirt was hauled from the neighboring dry gulches to the rockers, where was extracted the gold-dust that passed over the bars of the saloons and dance halls that quickly followed the coming of the miners.

A good many years after that when only an occasional gray-beard, scratching and panning around the old workings, remained of the thousands of roosting miners of earlier days, and the old town of Rockerville had dwindled away to a hum-drum mountain village, our family was one of the score that still remained.

In the second epoch of the camp's existence, an ample stream of water had been brought in an immense flume from Spring Creek Canyon, and the bars and gulches worked with hydraulic monitors.

When the water began to freeze in the flume in the fall, and the season's run was wound up, we usually made preparations for a hunt in the Limestone, and it is the story of one of these trips that I propose to relate.

My brother Win, our friend Ben, and I had been partners in piping out a gulch that summer, and when the freeze-up came, we hitched up a pair of old mules we had, and, loading our supplies and guns in a heavy mountain wagon, took

the road to the higher part of the Hills.

We usually relied on an 18 foot tarpaulin to protect our bed from the snow, both beneath and from overhead, but on this occasion we took along a 10 x 12 wall tent, for we expected to be out 4 or 5 weeks, and thought it might be a little more comfortable in case of extremely cold weather.

We stowed aboard 5 sacks of oats for

fect, and years after the time when they had roamed the forest in any considerable numbers. Reserved as a hunting ground for the Indians, the Hills were not opened for settlement until 1876. Until that time this region fairly swarmed with game, which the primitive methods of the Indians scarcely served to diminish. It must not be understood, however, that this game would exist there today, had the Indians remained in possession of the Black Hills country and been permitted to do unrestricted hunting, for no white men have ever so quickly and completely stripped any region of game, as have the Indian hunters of recent years in many parts of the West.

At the time of which I write, deer were probably not much more plentiful in the Limestone than they are today. As today, large parties hunted for weeks without killing a deer. Other men more familiar with the ways of the game, and being better shots, brought back their winter's meat.

IN a geological sense, the history of the Black Hills is unusually interesting. Where they now stand, an oval area of a hundred miles north and south, by a little less from east to west, was once the limestone bed of an inland sea. A mighty upthrust of slate and other older forms of rock, forced through a weak spot in the earth's crust by the cooling contraction of the surface, lifted the bed of limestone high in the air, and projected the slate formation, now in a vertical position, through a fault extending 60 miles north and south, with an average width of 30. Inconceivable changes of climate, and thousands of years of torrential rains, have so worn down the area of soft slate formation, that, with the ex-



The last, lone outpost in the Black Hills

the mules, rolls of bedding, 100 pounds of flour, a large and a small grub box, and guns wrapped in blankets. Ben had borrowed a 44 single-shot rim fire Ballard; my brother had a 45-105 single-shot Winchester; while I boasted a similar arm of 40-90 caliber and 11 pounds weight, with a single set trigger.

It was just before the laws restricting the number of deer killed went into ef-

ception of the high bald rock of Harney's Peak, standing away to the south-east, the limestone uplift lying to the west of the fault, is now considerably the highest.

The limestone to the east of the fracture was not elevated nearly so high as that to the west, consequently the erosion was all to the eastward. To the west remains a comparatively smooth and level table-land, 20 miles wide, naturally slightly inclined to the westward from its most eastern brim.

The western face, extending along the Wyoming line, is broken by numerous short, steep canyons, filled with dense thickets of pine, fir, and quaking-asp. Three winding, grassy gulches—Beaver, Hell, and Gillette Canyons—constitute the water-shed of the greater part of the region. So shallow and level are these and their branches, that toward their sources they become a succession of narrow park-like openings in the heavy pine forest.

The Black-tailed deer prefer the more open points and ridges of the western brakes. The White-tails, more timid, avoid the sunny open hillsides so dear to the hearts of their cousins, and keep back in the heavier timber. They are inclined, however, to stay away from large areas of dense thickets and under-growth, leaving that to their other cousins, the Fantails.

The Fantail is an unusual type of deer, found in fairly good numbers along the eastern brink of the limestone, and in the heavier growth down on the slate formation. It is a miniature edition of the Whitetail, weighing, when full-grown, from 40 to 60 pounds. In flight, it displays a somewhat spreading white tail, perhaps a foot in length, held upright, from which it derives its name. In the thick cover they inhabit, stalking them is practically a waste of time.

AS we took the road westward toward Hill City, nobody could have changed places with us. At Tenderfoot Springs, ten miles above Hill City, we made our first night's camp. The next morning was cloudy and colder, with a raw north wind, and as we took the road to Custer Park, we glanced often and anxiously at the sky. We were not afraid it would snow; we were afraid it wouldn't. Sure enough, the cutting wind took on a new edge of driven snow, as we turned west across the Park, to bear a little to the north up French Creek. We may have been cold; I don't

remember, but we were happy. We would be on the hunting grounds tomorrow, with a fresh tracking snow. We had merely started a day late.

Crossing the summit in a foot of snow, we reached Bull Springs, three miles beyond, as the storm cleared away and the evening came on, fair and very cold. We wanted to do our first hunting twelve or fifteen miles to the north, and decided to push on to Alkali Springs, about four miles, before camping for the night. Bright and early the next morning, in a temperature of something like 20 degrees

Although the sun was bright, the perfectly still air was somewhat sharp, as we buckled on our cartridge belts, and loading our guns as we walked out of camp, started away through the soft dry snow. Win and Ben had elected to hunt through the country to the east for some distance, swinging to the south. I paralled them for a half mile, gradually circling to the north. When we had been separated for perhaps a half hour, during which not so much as a track had crossed my path in the silent world of white, I heard two heavy reports, with an interval of a few seconds between, in the direction they had taken.

After another hour, I saw the first break of the level surface of the snow in a long straight track coming down the slope at the right, and crossing a hundred yards ahead. An old mountain lion had made it during the night, as I ascertained where he had passed beneath a leaning tree. Brushing the snow from the end of a near-by log, I sat down to eat my lunch, looking at the round foot-prints of the lion, four inches across the pads, where he had made them in the shallower snow. There was something business-like in the straight course the big cat had held across the wide timbered flat. It was no uncommon thing to see these sinister-looking tracks in the Limestone country, but in all our hunting we had never encountered one of their makers.

I had lighted my pipe, and was considering going on, when two more shots broke the stillness. Of the events of a day's hunting in a wild country, not the least thrilling is the sound of a comrade's gun. One has plenty of time for speculation regarding the chances of the shot, and looks forward to the story around the evening campfire with the keenest anticipation.

Getting well to the north, I was swinging back to the west through an open country of rolling sugar-loaf hills and islands of timber, a little disillusioned regarding the region, which we had never before hunted, when over a rise at the edge of a timbered hillside, I glimpsed the horns of a big buck, apparently lying down. I instantly ducked, and working over to the left a few yards, crawled up behind a big log, which would bring me in plain sight of the spot at a distance of about 100 yards.

With the 40-90 cocked and at my shoulder, I rose up very slowly behind the snow-covered log, to see the largest



A buck and a doe moving softly through the light snow

below zero, with our wagon wheels singing a merry tune, we were again on our way. After a couple of hours of hard going, we turned off to the east for a mile or so, and went into camp at the north edge of a small sheltered park. Springs are rare in the limestone, and there was none at this camp, but we cared little for that when there was snow to be melted. As we hustled the harness off the mules, and picketed them to two small trees in the park, avoiding unnecessary noises in the process, we were continually looking off into the woods, half expecting to see deer moving across the open spaces among the snow-laden trees.

white-tailed buck I ever saw, standing broadside, looking at me, and just about ready to run. I knew I must shoot quickly, and pulled the instant the bead rose to the point of the shoulder. I could not be sure he flinched at the shot, but, at any rate, he and a medium-sized doe that jumped from the ground, ran at top speed over a ridge fifty yards farther away, as my second bullet snipped off some pine boughs three inches above their backs. Almost instantly the doe returned on the track.

Going to the point where the doe turned back, I found the big buck had gone down, and lay dead at the bottom of the steep slope, nearly 100 feet below. He would have weighed close to 200 pounds, but I managed to hang him up after a fashion by sliding my gambrel stick out along a half-fallen sapling.

Coming into camp at sundown, I found the boy clearing away the snow to put up the tent. With a big fire of pitch logs in front, the stove going in the tent, and a warm supper of potatoes and onions stewed in a frying-pan, warm dutch-oven bread, fried deer liver, with plenty of flour gravy, and hot coffee in big tin cups, it was a memorable occasion.

The boys had come upon the tracks of three deer in an open short-pine country, and were looking at them in an effort to determine which way they led, when Ben saw the deer running on the opposite hill-side. Ben was new at the business, and seemed unable to obtain a



French Creek Roadside on the way to the hunting country

satisfactory sight on the desired game.

"Shoot! Shoot!" my brother exclaimed, as he banged away, and shot again, as the last white-tail went into the brush. Reaching the spot where the deer disappeared, they found a small spike buck half buried in the snow. The heavy bullet had struck back of the shoulder, grazing the point of the heart.

After dressing and hanging the deer to the limb of a dead tree, they took the track of the others. When they had fol-

lowed them for a mile, during which the deer had not stopped running, they came across two new tracks, which had evidently been made during the night.

Working slowly along, one at either side of the tracks, they followed the new trail. Slipping noiselessly along for half a mile, they found the game had gone up the slope of a jack-pine covered ridge.

As they came to the top, a crashing of brush told them the deer were going

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Typical Black Hills scenery. The trail led through many little forests of lordly fir trees where the Whitetail deer love to hide

THE OLD DRUM-MAJOR OF MT. RAT

OF ALL SOUNDS HEARD AMID THE SILENCE OF NEW ENGLAND WOODS NONE IS MORE BAFFLING OR ENTICING THAN THE DRUMMING ROLL OF THE RUFFED GROUSE

By EDWARD RUSSELL WILBUR

SHE was one of a family of eight, and the first time I saw her she was in the old wood box back of the kitchen stove. The largest pup in the litter, she began to assert her rights from the day she came into the world until the day she "went over the top" of the box and landed on the kitchen floor in front of Old Tom, the cat. Here came the first rough touch of her young life, for Tom had no use for pups and his claws were sharp. From that day on she waged deliberate war on all cats and her first real triumph in life came on the day she put Thomas up the cherry tree and kept him there while she dictated terms. Thomas came back to the kitchen saucepan in fear and trepidation, but my lady met him, accepted his sincere apologies, kissed him on both cheeks and many a siesta thereafter they took together, folded in each other's arms.

We christened her Bess; she became a part of our family; followed the horse and the wood-shod sled to and from the old wood lot, pointing frogs and grasshoppers en route! She took a beating from the old hen who resented her inspection of her fluffy family! She was stung by the bees; she was locked in the corn crib and lost; all the mischief a puppy could do she did, and yet with all she edged her way in closer to our hearts and grew, loved by all, into much wisdom and many years.

The hills of old New England, the alder swamps, the birch and chestnut groves became her halls of learning; from them, in unfolding the scents and trails of grouse and woodcock she perfected her training and became, in cunning and field dog wisdom, the greatest of them all. She came from a long line of illustrious setters, the real, old-fashioned stock, sturdy, with a wonderful square muzzled head and a pair of big brown eyes with the high lights shining in them—flashes from a wonderful brain—although in the skull of a dog.

Her first trip afield showed her natural liking for the game birds of her native state and before we put aside the gun and closed her first season I knew I owned a partridge dog—one of those that by foot or body



We christened her Bess

scent, in dry and shifting leaves, or on the rocky side hills, could locate and outwit that greatest of all American game birds, the ruffed grouse of New England. Back again my memory trails to the days afield with this wonderful dog. I can see her now as she flits back and forth across the brown leaves, suddenly to stiffen and draw along, up to and over an old stone wall, under a tangled grape vine, into an old deserted apple orchard, careful as a cat where the cover was thin—that uncanny nose picking out the body scent; finally to stand tense and sure, those big, brown eyes and the twitching jaws, all signs of

life in a beautiful picture. And then—well, you have missed the full measure in the glass if memory does not hold for you a picture of one shot well made, one grouse well earned.

And so the years went by and each autumn as the October haze and the falling yellow tokens heralded the coming open season, Bess would hang to my heels, keen for the trail and the opening day.

Down through the hills winding in and about over a rocky bed runs the River Shepaug—on either side brushy flats thickly covered by alder and birch with here and there a deserted orchard of old apple trees, dropping its fruit—fit food for the rabbit and partridge people. High on either side, "rock ribbed and ancient as the sun," the laurel draped hills sentinel the valley, and on guard at the entrance, camouflaged in green and gold to hide its scars, stands old Mt. Rat.

ONE October day after a morning tramp, Bess and I rested on the wooden bridge midway in the valley. I was lost in thought and the beauties of the painted scene. The noisy river rushed along under the bridge, carrying here and there the red and yellow leaves from the hills. Bess, I think, was passing her time in the land of dreams, when away upon the hillside a muffled roar brought both of us to attention, and introduced us to the Old Drum-Major of Mt. Rat. I have heard the wild bugling of the elk, the bellow of the Canadian moose, the sharp bark of the fox prowling in the moonlight, the call of the night

heron, but of all wood sounds—baffling, enticing—the booming, long roll of the drumming grouse never loses its appeal. Rarely, if ever, is it the luck of the hunter to come upon this wild drummer as he peals forth his long booming roll, but evidence in the shape of the drumming log, bark beaten off by the sturdy wings, is scattered over the hillsides of our northern grouse grounds. From boy to man—all who are familiar with the woods and fields of New England—stop at that challenge. It's the one wild sound none can imitate.

Bess acted as if



The river flowed along under the bridge carrying the red and yellow leaves

it was a challenge directed at her. She sat up, pointing her nose in the direction of the sound, sniffing as if to get just one faint taint of the feathered drummer. And I, no less enthused, made her keep in, while we waited for just one more drum-beat that might locate the bird more exactly. It came—the boom—boom—boom—about half way up the hillside and directly opposite where we stood on the bridge. Not often, if ever, does the following up of a drumming grouse repay the effort; many times I had tried it only to hear the wily old cock slip away beyond gunshot, but, as I was not over keen to hunt a route that led us further from home, I gave Bess the word to "Hie on!" The wise old dog headed off into the wind, directly toward the sound until we struck an old wood road which led in the direction we were to follow.

Bess was carefully nosing out the stony side hill just above the road, and I, standing balanced on a big boulder, was watching, feeling that we were about at the drummer's last stand—when she whirled and froze into as tense a point as a dog often makes on these birds; and then, almost from under her nose, a big grouse jumped up on a fallen log and hurled himself like a cannon ball directly at my head. Swinging to shoot—well, when Bess came up I was just picking myself up, recovering my gun and rubbing a barked elbow, for it was certainly a tumble, a high and lofty fall.

Yet clear in my eye was the picture of that old cock as he jumped up on the log before his flight, and clear in my eye was the vision of a half-white wing. The day was too far gone for us to follow his flight down the hill, so I limped home, resolving that on the morrow I'd try the wise old bird again.

Twice during that season Bess and I found and flushed the old rascal, but never a shot, and so the season closed and summer came. One day, while we were walking in the old orchard back of the house, the white winged drummer strutted out from under a fallen log, spreading his ruff and tail almost in old Bess' face and was promptly charged and chased for his impertinence.

Again, we found a nest of eggs up by the big rock near the spring, and knew that the hatching resulted in a fine brood of husky ruff-necks. In early September when they took flight, squealing off in every direction when Bess found them in the rank growth of ferns in the deep woods, I could have sworn I got a flash of a white wing, and I believe our drummer was the daddy of the flock.

THE season opened again. Bess and I took to the covers and hills of our old stamping ground, spending glorious days afield with varying success; woodcock in the birches and partridge in the swales and alder runs of the foothills. But I saw no sign of our old drummer and yet I knew at times that Bess was sniffing the air hoping for the taint of his brown feathers. I believe she hunted his old drumming grounds more keenly than she did other covers and her disappointment showed clearly when we turned from where she hoped to find him.



Bess made two or three quick jumps and froze, pointing into the grape vine

One day as we hit the highway, both of us satisfied to take the short road home, she at my heels, a partridge flicked along through the brush, crossed the road almost in front of us, lit on the rail of the chestnut fence, and hopped off on the other side, down under a tangled grape vine on the down slope of the rocky pasture lot. The sun, just sinking behind the hills, played its golden light on the bird as it stood on the rail for an instant, and again the white winged drummer held the stage. Bess made two or three quick jumps and froze, pointing into the grape vine, but that old rascal

slipped away without a sound—never raised above the pasture brush, and once again got away without my firing a shot. Bess turned those big brown eyes up at me with a most disgusted look and the road home was one long wish for "what might have been," if we had only planned otherwise.

Another day Bess found the old drummer. I knew she had him—she fairly quivered in every hair—but this time a quick turn in the thick cover saved him and I shot off a good sized birch tree as I swung to lead his flight. I ruefully

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One day, as we were walking in the orchard, the white-winged drummer strutted out

A REMINISCENCE OF ROOSEVELT

THE EXAMPLE OF THEODORE ROOSEVELT'S UNQUALIFIED AMERICANISM, HIS STURDY MANHOOD AND HIS SURE SENSE OF JUSTICE SHOULD SPUR US ON TO A NOBLER AND SANER LIFE

By EDWARD GILLETTE

IN the month of September, 1891, our survey party camped at the head of Buffalo Fork of Snake River, about one hundred miles southeast of Yellowstone National Park.

We were engaged in locating a railway line from Sheridan, Wyo., to Boise, Idaho. It being necessary to explore the country ahead of us and to get some supplies and winter clothing for the outfit, especially overshoes (without which camp life in winter is a failure) I got together a pack outfit of ten or twelve horses and with a guide by the name of Charley Marsden and Don Hardy for cook, packer and all around good utility man, we started for the Old Faithful hotel in the Yellowstone Park.

Our camps on Buffalo Fork are pleasant to remember—good water, wood and grass were abundant. The Teton Mountains loomed up ahead of us in wonderful grandeur; the stream at each bend where there was still water contained schools of trout sixteen to eighteen inches long and there were herds of elk moving along the trails on the opposite side of the valley, to their bedding grounds.

At Jackson Lake we found the only house in that country. A man by the name of Sargent lived there and he told us his partner named Hamilton, a New

York man, had been drowned in the lake and that he was running the ranch.

On entering Yellowstone Park the weather suddenly changed, snow commenced to fall in large flakes and pile up rapidly, so that when we made camp about fifteen miles from Old Faithful, the scene presented a midwinter aspect.

The next morning everything was covered with a thick blanket of snow, which was growing deeper as though the storm had just gotten a good start. It was anything but pleasant to break camp, brush off the snow, thaw out the frozen canvas and pack up. The chief incentive to do this was the fact that the horses had no feed and that it was possible we could get some at the Inn.

We plowed through the snow all day breaking the trail and arrived at Old Faithful just before dark. On looking back at the pack train, I saw two horsemen following our trail, one of them on riding up introduced himself as Roosevelt and his partner as Woody, an old-time guide in the Park. He thanked us for breaking a trail for them, stating they had followed it nearly all day. We wondered how anyone could be foolish enough to leave camp on such a day. Roosevelt said he was a Civil Service Commissioner and had been wired for

from Washington and was on the way, having left his partner Ferguson in camp.

We secured accommodations at the Inn, but the custodian would not sell us any oats, as his instructions had been to lock them up for use the next season. This Norwegian or Swede could not be persuaded to part with a single sack of oats, no matter what the price or the needs of our stock.

Finally an Irishman named Larry, a great character in the Park, who had overheard my plea for the oats, gave me a wink and later joined me in another room. He said: "That Swede don't know anything, when it gets dark take a bar, pull the staple at the barn and help yourself." I acted on Larry's advice and our stock did not lack for oats thereafter.

IN the conversation we had that evening the Teton range was declared to be the real thing as far as rugged mountains are concerned. The Commissioner stated that they reminded him more of the Alps than any other mountains he had ever seen. To me, for the first time they came up to my expectations of how mountains should appear, as shown in the first geography. The

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Photographed by J. E. Stimson, Cheyenne, Wyo.

The Teton Mountains loomed up ahead of us in wonderful grandeur, coinciding exactly with the pictures in geographies

OLD DUCKING DAYS ON CAPE COD

CONCERNING A GREAT STORM AT EEL GRASS COVE ON THE BARNSTABLE FLATS WHEN DUCKS IN MYRIAD NUMBERS SWEEP IN FROM THE SEA

By WALTER M. HASTINGS

TWENTY years ago, my only black duck shooting had been over live decoys from a well-appointed stand. The old market gunners objected to wing shooting as not being remunerative enough and anything except sitting shots when a flock decoyed was severely frowned upon. I did not care for this kind of sport and when I first heard about wing-shooting from a boat over wooden decoys, I was very anxious to try it. One Thursday afternoon in the middle of October

found me in a little town on the south shore of Cape Cod watching my young friend Oscar trying to get a shot at a crippled coot on the beach. He was sitting in an old chair well exposed to view, waiting for the "game" to come ashore. The coot escaped. Oscar had been convalescing from an illness and was now in good shape, so when I suggested that we prevail upon a mutual friend, William H., to take us on a duck shooting expedition to the Barnstable marshes, Oscar was on fire in a minute. The more so probably because he was soon leaving for home and school, and the salt air, the wind in the pines, and the smell of the marshes would be a thing of the past in a very short time.

A word about William H. or Billy, as his friends call him. Imagine a slight, wiry man, a little below medium height, brown hair and mustache, who knows by intuition where birds and fish will be. A noted shot, a capital cook (ducks eighteen to twenty-five minutes according to your preference) and a most charitable friend—and you have him. He will excuse your poor shots and your failure to land the big bass. He never gives advice unless pressed for it and is then a little shy about it for fear of offending.

We found Billy painting the east side of the school house. And all three of us sat on the flag pole to talk it over. The flag pole was new and was on the ground. Billy offered a number of objections—he is not however a hard man to argue out of work if there is a prospect of a good bag. We discussed ways and means.

That night at 7 o'clock, Billy and Oscar drove up to Mrs. Nye's, where I was staying, to pick me up. Strange to say, the last thunder storm of the sea-



The marshland is threaded with narrow water-ways

son caught us before we could get away. Finally at eight, we started north on the six-mile drive across the Cape to the shack on the south side of the Barnstable marshes. Billy and a few friends had built it for just this purpose.

Before the days of the automobile, I used to enjoy the rides at night over the sandy main roads and the wood roads on Cape Cod. Everything as black as a hat—I always wondered how anyone could find his way about. Now your light goes with you and the roads are as smooth as a floor. The night in question was damp and cloudy and especially black. We arrived in due course.

TO the uninitiated, the harbor and marshes are curious places. At the bottom of Massachusetts Bay, a strip of beach and high dunes seven miles long form the coast, broken at the east end by a narrow entrance to the harbor, guarded by the lighthouse. Running along south of the dunes is marshland threaded with wide and narrow waterways, except at the east end where the harbor is situated. From the dunes to the mainland is about three miles, so there are about fifteen square miles of territory to play over. The salt creeks form many marsh islands and sand islands and shell fish, ducks, gulls, seals, and various kinds of fish are abundant. To be in a well-thatched boat, decoys out, the stars still shining and watch the early dawn and the teeming life around you is a worth-while experience. A pair of blacks, talking in low duck language, swim in from the neighboring thatch.

The drake says something and the duck breaks into a loud call. Other and more distant ducks chip into the game. Then

three black bullets pitch out of nowhere and with a long drawn splash land in the decoys—you cannot see them. Presently as the sky-line lightens in the east, the gulls begin to call—a flock of crows come from the mainland making much noise. In the half twilight, you flush the ducks in front of you and get in both barrels with success. At once, with a loud quack, a duck springs from the thatch directly behind you and is off like a bullet. Now small flocks that will not decoy journey from the marsh a mile or so to westward out to sea. Some cross near where you are lying, but do not notice the decoys. Your duck call is usually useless at this time. The chimes of a flock of yellow-legs come floating down the wind. The sun comes up, its almost level rays producing wonderful color schemes with cloud, blue water and golden thatch. Sparrows take quick short flights around your boat; meadow larks sing and in the distance you can hear beetle-head calling. Something scares a flock of big gulls on a sand spit a half a mile across the water and they look like a snowstorm in the sunlight; a seal comes up among the decoys and noses them. The wind is rising—the day has begun.

THE shack was simplicity itself. Six bunks, a stove, sink, table and closet. The smell of oil skins and tarred rope greeted one on entering and mingled with bacon and coffee and wood smoke in the morning. We did not make an early start. At eleven, after overhauling the boats, we got away and I took my first lesson in the new (to me) kind of shooting.

Going in a northwesterly direction from the open water of the harbor up a broad creek, Billy announced that we would separate. He said to me, as we came to a little creek in the marsh wall: "When the tide is high enough to float your boat you go through here and you'll come out at Eel Grass Cove. Set up on the point the way I've told you and ducks'll fly when the tide gets up near full. I'll come for you at sun down, so you stay right there till you see me. I'll place Oscar and go to Slough Point myself." These names meant nothing to me then. While waiting for the tide I'll

explain a few things. There is a rise of about nine feet in the tide and many of the small creeks at low water will not float a flat ducking boat except in the little pools. The bottom is sandy, the sides are a stiff mat of grass roots and mud rising almost straight up six to ten feet to the top of the marsh. There are two kinds of marsh—high and low—the former is fairly firm, covered with a low grass and is evidently older or earlier formed. The low marsh is several feet lower and grown thick with high reeds of thatch. It is covered at high water, but the thatch projects a few inches above the surface and makes fair cover even then.

My boat, or skiff, was a flat bottomed, narrow, high-sided abortion, decked over fore and aft and with a cockpit and washboards. It was about eleven feet long. Billy has since perfected a beautifully shaped ducking boat, decked over, that will ride in a very rough sea. He has built many of them since that day.

Presently, I got my boat into the little

toward the entrance of the harbor and see the lighthouse four or more miles away. The tide that noon still had fifty feet of flat to cover before reaching the thatch on my point. In an hour it had covered this. I had cut with a jack-knife, thatch to cover the deck; had set forked twigs, brought for the purpose, in holes along the washboards of the cockpit and had brushed these twigs over with thatch. Ready for business you see. I sat down in the boat screened by my breastwork. Nothing happened. Then the wind freshened as the tide rose. It was a beautiful sunny day. I sat patiently for an hour or more and then all at once a flock of ducks came over my decoys. I did not see them until they had arrived and I poured both barrels of my first double gun, a mongrel with hammers, into the thick of them. I was green in those days so, although they were rudely surprised, they were quite uninjured. I blush to say that this happened several times. At last a flock came down over the decoys almost to

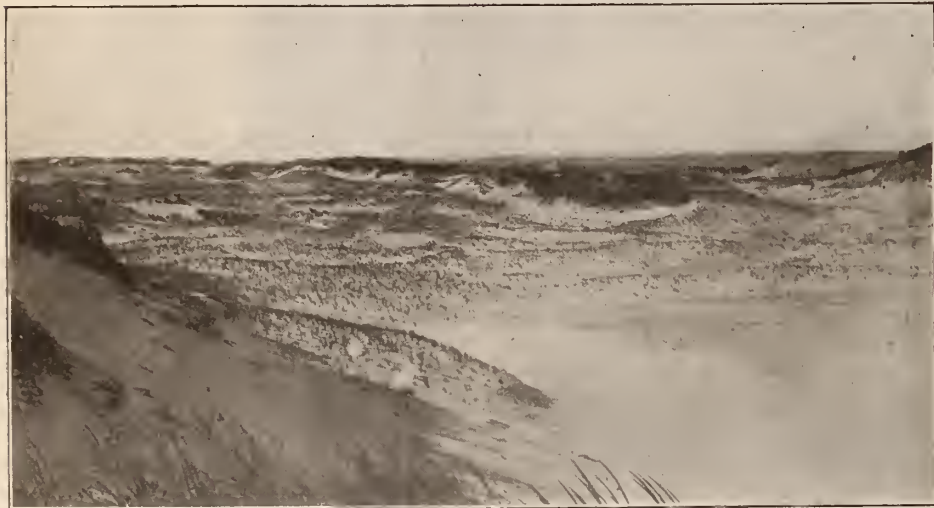
siderable freeboard. The brushed-over twigs must have looked like a thatch island. A wide prospect now opened; to the north the seven-mile line of sentinel sand dunes were creamy in the sunlight, with thickets of pine and brown scrub oak in the valleys and patches of dull sage greens and reds on their sides; to the west and south, miles of golden thatch extending to the shores and little white specks of farm houses between the marsh and the woods that stood along the sky line.

My first ducks were shot after three o'clock and at the end of the short autumn afternoon, I had nine, mostly blacks. Toward sunset flock after flock poured into the marshes from seaward. They came in beautiful horizontal lines, crescent shaped, the ends bent back, those in the center flying abreast. They passed over, fifty yards or more high without decoying. Billy rowed over from the high marsh to the north, the stern of his boat piled with a variegated bag, black ducks, sprigs, mallards and teal. I shall never forget that picture; the sun setting red over the golden marsh grass behind me, Billy resting on his oars, the stern of his boat piled with ducks, my own modest bag at my feet and the stream of ducks flying steadily overhead into the west.

It was dark when we got back to the shack, tired but well satisfied with the day. Long after supper, the door was thrown open and a youth from the home village stood on the threshold with eyes popping out of his head and his mouth open. Billy was on the floor tying up the birds. Dodo had driven the six miles of sandy road to see how we fared. His first words were, "Why in thunder didn't I come when you asked me?" The thunder storm had decided him. It was too early in the season for ducking, as we usually associate this sport with wild weather, rough and blowy. This had been a perfect autumn day, mild and sunny with a light southwest breeze. Billy, after observing the general trend of the flight, had gone ashore on Black Banks, the high marsh on the north side not far from the line of sand dunes and had put his decoys in a pond hole. He had ensconced himself in the thatch on the edge of a small creek that made in there. His bag testified to his good judgment and good shooting.

WITH so many birds in the marshes, we made an early start next morning, Saturday. We breakfasted at four and Oscar and I were in place on Eel Grass Cove before daylight. Even so the ducks went out without decoying and we got a few birds for our trouble. Later we joined Billy and all three went over to Black Banks on the north side to see if anything was stirring. It was low water, about ten o'clock, and we did not expect much. On Little Sand Island, we stopped to see two of the Barnstable boys, Horton and his brother Marcus, who were digging clams. They had guns with them and expected to shoot when the tide drove them out.

About noon, the tide was coming in



A strip of beach and high dunes form the coast

creek and walked along the bed of it between high mud walls over which I could not see. I experienced a shut-in feeling. A sandy bottom covered with a few inches of water; bright blue sky overhead and dark brown walls. The creek curved first one way and then another and permitted no distant views, but I contrived to make progress. As the tide rose, I would gain a few feet and would then sit on the bow of the boat and wait for more water. It was lonely and I felt a thousand miles away from anyone. I coaxed that boat for a good half hour.

At last, on turning a corner in the winding creek, I could see open water ahead. As I approached, a flock of ducks, fifteen or twenty, that had evidently been feeding on little crustaceans on a mud flat near the mouth, rose with a roar of wings. I forgot my loneliness and prayed for the tide so that I could get placed and ready.

EEL GRASS COVE into which I now came is a little crescent, facing open water on the north and east. I had approached through the marshes from the south and from it could look

the lighting point, changed their minds and rose. The last two almost wet their webbed feet, which were sticking out to light. Instinctively I shot first at one and then at the other and got both. Of course I had been told many times to pick my birds even among a flock, but had not sense enough to reason it out. I could not see the holes in the flock for ducks.

I pushed the boat out from the thatch and like a floating farm yard poled out and picked up my birds—they were sprig tails and I admired them and thought them the most beautiful I had ever seen. I began to scan the sky line closely and thus saw my next flock long before it arrived. They were black ducks and decoyed beautifully. Presently I became aware of someone shooting a mile across the water on my left on a point of marsh which I afterward came to know as Slough Point. The shooter left shortly in his boat and I still heard him another mile to the north on the high marsh.

The tide was at flood. My boat was high in the thatch on the point and the tips of the reeds projected above the water barely enough to cover its con-

and the wind was blowing hard from the southwest. We left Black Banks and headed for the low marshes against the wind intending to make Eel Grass Cove. This was across a wide stretch of open water where the wind had full sweep. Right here I got into trouble. My high sided tub bucked the wind like a square sail. I believe that if she had had a center board, I could have steered her



across within the proverbial four points of the wind without rowing a stroke. My companions soon left me behind. Presently my starboard oar broke square off within a few inches of the row lock. It was well worn at that point, but would probably have lasted out a fairly stiff blow. I was green in bay shooting in those days, as I have said before and needed looking after. I had picked a dangerous boat with poor equipment. This wind was already exceptionally heavy. It was increasing momentarily, although the tide was less than three hours high. I drifted back behind Little Sand Island and, as I expected, I found Marcus and Horton still clamming. Explaining my predicament they said they would take me home across the harbor late in the afternoon. Meanwhile Billy and Oscar kept on, knowing that I would find the boys and would be safe.

Early in the afternoon, my new comrades and I rowed in their dory across the channel between the sand island and Black Banks and climbed to the top of the high marsh. Since my unsuccessful attempt to get away, I had been in a sheltered spot sitting on an empty clam crate watching Marcus. He was a wonder at digging clams, having a well oiled joint in the middle. At once the force of the gale became apparent to us.

From a cloudy morning, it had changed to a sunny afternoon. A dry southwester was blowing and a tremendous one at that. By three o'clock it had attained the force of a hurricane. Soon the ducks began to come and we dispersed ourselves in a line across the marsh. I never saw anything like the flight that afternoon. We stood or rather crouched with our backs to the wind and with decoys in pond holes watched the ducks. They came out of the northeast from the sea interspersed with yellow-legs—beetle-head and other birds seeking shelter in the marshes and waterways southwest of us. We were in the direct line of flight, although Billy tells me they were pouring in all along the sand dunes. The ducks were flying ten or fifteen yards high, making heavy weather of it and would not stop for decoys. Little wisps of shore birds would hurtle by, a few feet above the marsh like white snow flakes before a blizzard. We shot when birds came within range.

AN hour before sundown the Barnstable boys began to get uneasy. Goodness knows, I had been uneasy for hours. We held a consultation. To go straight across the harbor to the shack and their home was out of the question after looking at the sea in the harbor, kicked up by the hurricane. We would have been in the trough of the waves. We were on an exposed shore running east and west. It was decided that rather than wait for low water, about nine o'clock, we could try rowing the dory against the wind along shore and try to make a lee to the westward, then, bending south, get across. The high-water bucking the southwester made short deep troughed waves that terrified me, but with two boys who had been raised on this water, I felt that their judgment was better than mine and could be relied upon. We made a start, two at the oars and one in the stern on the pile of clams. I was on the clams. I have since felt a kindly interest in the special providence which watches over children and inebriates. My coat was full of shells. I had on a pair of hip rubber boots that had been loaned to me, several sizes too large, that leaked. My last meal had been eaten thirteen hours before. The water, torn off the tops of the waves and striking us with force, saturated my clothing almost at once. Fortunately we did not upset. Someone said afterward that we should have un-

loaded the clams before starting. I, for one, believe that we left undone several things that might have been to our advantage. Please do not think that I was idle during this voyage. I baled and baled hard. We began shipping water at the start and I baled at no one's request. It was quite necessary. We made little progress and when our breath began to come in gasps, we entered the mouth of the little creek barely in the nick of time where we held another council. Horton, the eldest of the three, put it up to us. We could either wait where we were for the wind and tide to go down or foot it across the marshes to the sand dunes, then to the head of the marshes four miles west and so back on the south side. That is what we did. We started at dusk, but it was dark before we got to solid ground.

SOMETIME after nine that night, three weary young fellows, one of whom could scarce push one overgrown, sodden rubber boot ahead of the other, straggled into our shack. That tramp was over eleven miles of marsh and soft sand and took four hours. My gunning coat, shells, and heavy gun weighed like lead. I was dead with fatigue and swore that I would not stir foot again that night. However, plentiful food is a wonderful restorative to youth. Billy's brother Joe had driven over to get us so we started for home that night.

Billy had spent the afternoon in the lee of Eel Grass Cove with Oscar. He bagged sixteen ducks and killed a number of others. Experienced bay man that he was, the gale was such that he did not dare to push his boat far from the shelter of the cove for fear he could not get back.

Next day we learned that the high wind had set adrift and destroyed much shipping on the Massachusetts coast and had wrought havoc in other ways.

We did not record a tremendous bag but for my first it was a most interesting trip and even with the memory of its hardships vividly before me, I would like to live those two days over again.



At last a duck came down over the decoys almost to the lighting point, with wings spread widely, and I shot instinctively

White-fronted Goose (*Anser albifrons*)Lesser Snow Goose (*Chen hyperboreus*)Black Brant (*Branta nigra*)

A MANUAL OF WILD-FOWL SHOOTING

PART TWO OF A SERIES OF ARTICLES DESCRIBING THE TRAITS, CHARACTERISTICS AND METHODS OF HUNTING OUR WATER-FOWL—THE WILD GEESE AND THE BRANT

By FREDERICK A. WILLITS

THE Hutchins goose, length about thirty inches, the cackling goose, length about twenty-five inches, and the white-cheeked goose, length about thirty-four inches, are all practically identical in plumage with the Canada goose, of which they are sub-species, and distinguishable from the latter bird only by their smaller sizes. They are often termed lesser Canada geese. All three birds are found in the western portions of the United States, the Mississippi Valley to the Pacific Coast. They are hunted in the same manner as the Canada geese, with which bird they are often found associating.

The Emperor goose is of little importance to the sportsman, as it is extremely rare. I believe they are seen more often on the islands and coast of Alaska than elsewhere. They are very handsome birds. Back of neck and head white; dark brown on forepart of neck and throat; back and underparts bluish-gray, feathers tipped with narrow white and dark-brown bars; bill pale purple; legs and feet orange. Length about twenty-six inches.

The blue goose, another handsome bird is also rare and but little is known about it. It is sometimes seen in the Mississippi Valley and ranges from the far north to the Gulf of Mexico. Head and neck white; back, breast and wings brown; wing coverts and rump bluish gray; under parts white; tail brown, feathers edged with gray; bill pale pink or yellow; legs and feet red. Length about twenty-seven inches. Few present-day sportsmen have been fortunate enough to bag the blue goose or the Emperor goose. I have never shot either one, in fact have never seen them near enough to recognize them.

The white-fronted goose is rare on the Atlantic Coast, but abundant on the Pacific slope and in sections of the in-

*M*R. WILLITS described the swans and the Canada geese in the September number of FOREST AND STREAM. The other wild geese, of more or less importance to the sportsman, and the brant are considered in this article and the November number will contain a description of sea duck shooting.—
[EDITORS.]

terior west of the Mississippi River. It is often called speckle-belly, gray brant, and has other local names. Head and neck brown, except forepart of head at bill which is white; back, wings and tail grayish brown; rump grayish white; breast light brown; underparts grayish white marked with black blotches; bill, legs and feet orange. Length about twenty-eight inches.

The white-fronted geese are shot over the stubble fields of the West. There, when feeding on grass and grain, their flesh is delicious; far better, as with other water-fowl, than when they are found on the salt marshes about the coast. The manner of hunting the Canada goose, described in a previous article, applies equally well to the speckle-bellies. They are shot over decoys, or from ambush as they fly from one feeding ground to another. Like the other geese, they will when not too much shot at follow the same line of flight, and the observing sportsman will have no great difficulty in getting under them. He must, however, be perfectly concealed and remain motionless until the fowl are within range. All the geese have exceedingly keen sight, and an approaching flock will at once detect the smallest unfamiliar object on their feeding ground or the slightest movement in the brown stubble beneath as they gaze downward.

ALL the geese are very swift of flight, although, because of their large size, they do not appear to be moving rapidly. The aim, therefore, should be well in front of a bird passing. Geese coming into the decoys will often at the report of the first shots spring straight up in the air, going to a considerable height before swinging off. The second barrel is often missed because the shooter does not aim far enough above the swiftly rising fowl. I do not think there is a bird whose flight is more deceptive than that of the wild goose. They are always flying much more rapidly than they appear to be. The same guns and loads used in shooting the Canada geese are used on the speckle-bellies.

The greater snow goose, length about thirty-three inches, and the lesser snow goose, length about twenty-four inches, are, as their names indicate, birds of snow white plumage, with the exception of the primaries (long end feathers of the wings) which are black. The bill, legs and feet are dark pink or red. Young birds have head, neck and upper parts grayish white. The two birds are distinguishable from each other only by their size.

The greater snow goose ranges throughout North America at large, although it is far more abundant in the interior and on the Pacific Coast than on the Atlantic. They are rare on the Atlantic Coast north of the Chesapeake. The lesser snow goose is more distinctly a western bird, and is found from the Mississippi Valley to the Pacific Coast, and from the Arctic Ocean to the Gulf of Mexico.

The snow geese are very beautiful birds, and a great flock of them streaming across the blue of the fall sky, like drifting, fleecy white clouds, is a sight long to be remembered. The abundance

Blue Goose (*Chen Coerulescens*)Hutchins Goose (*Branta hutchinsii*)Brant Goose (*Branta bernicla*)

of these birds in years gone by is almost beyond the imagination of the present-day hunter. In the Mississippi Valley, on the broad prairies of the west and in California, fields were whitened by these fowl as by a sudden fall of snow. In the Sacramento and San Joaquin Valleys, in Oregon, the Dakotas, in Texas and elsewhere, great clouds of these birds, during the migrations, descended upon the grain fields. The farmers went forth, gun in hand, to protect their crops from total destruction; countless thousands of the fowl were killed annually, and, a glut upon the market, thousands of them wasted. Today they come in ever decreasing numbers, but they are still plentiful on the Pacific Coast, in the Mississippi Valley and in parts of Texas.

The snow geese are often seen associating with the Canada geese, the white-fronted, and other geese. All these varieties are sometimes shot from the same blind on the stubble fields during the same day. Often a mixed flock of live decoys of the different species are used where all the birds are plentiful. The snow geese are hunted in the same manner as the other geese. They are known as white brant, wavey, and have other local names indigenous to the locality.

Ross snow goose is identical in plumage with the other snow geese and is about the same size as the greater bird. It is not uncommon in some sections along the Pacific Coast, but is never seen along the Atlantic. Its habits are very like the other snow geese, with which it associates. The difference is interesting to the naturalist, but of little importance to the sportsman, since all the snow geese are alike in appearance, are shot in the same manner and over the same decoys.

THE BRANT

THERE are two varieties of American brant or brant-geese: the common brant and the black brant. The common brant is found throughout Eastern North America. Although it is met with in the interior, it prefers salt water to fresh and is a common fowl on the brackish bays of the Atlantic Coast. Head, neck, breast, back at base of neck, and tail black; small patch of white on either side of neck near head; upper parts grayish brown; under parts grayish white, streaked with brown on sides; white about and under tail; bill, legs and feet black. Length about twenty-six inches.

The black brant is the western representative of the preceding species and

is very rarely seen on the Atlantic Coast. It is about the same size as the common brant, but easily distinguishable from the latter bird by its much darker plumage. Head, neck, breast, abdomen and tail black; white collar around upper neck interrupted at rear; wings and upper parts dark brown; white about and under tail; bill, legs and feet black.

The black brant are still plentiful on the Pacific Coast. California hunters formerly made immense bags of these birds, but over shooting has been followed by the usual result, and in no locality today are the fowl so abundant as in former years.

The common brant is familiar to sportsmen who have shot on the Long Island bays, Barnegat Bay, Currituck Sound and other waters along the Atlantic Coast. Here, although not nearly so plentiful as in former years, they still come in goodly numbers during the spring and fall migrations.

The brant arrive along the North Atlantic Coast in October and continue to move southward during the remainder of the fall and early winter. They pass rapidly by the shores of Canada and our most northern states, but often make long stops on the bays and sounds of

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White-fronted geese swimming. They are often called speckle-bellies, gray brant and have a number of other local names

JAMES ALEXANDER HENSHALL

THE AUTOBIOGRAPHY OF THE APOSTLE OF THE BLACK BASS,
FATHER OF THE GRAYLING AND DEAN OF AMERICAN ANGLERS

SIXTH PAPER

JOHNNIE and I were now attending the collegiate course at the high school, and for two or three years our sporting activities were restricted to Saturdays and other school holidays. These were devoted to fishing, shooting and sailing along the Patapsco and upper Chesapeake Bay. Sometimes we were accompanied by Andrew or Robert, and we enjoyed sport galore for fish of all kinds; shore-birds and ducks were very abundant at that time, and were not far to seek.

One day we were fishing off the Lazaretto, opposite to Fort McHenry, and a stiff breeze blowing, we could hear, occasionally, the snapping and flapping of the big garrison flag. Then, Johnnie, who was already an incipient rebel, sang:

*'Tis the Star-Spangled Banner,
O long may it wave
O'er the land of the free and
the home of the slave."*

Robert called him down, and then proceeded to tell us the story of the National Anthem.

It was during the latter part of the war with England, in 1814, that a British fleet, in command of Admiral Cockburn, was assembled at the mouth of Baltimore harbor, a menace to the fort and the city as well. It was then that Francis Scott Key, a prominent lawyer of Maryland, with others, was selected to visit the Admiral, and endeavor, by using all the arts of diplomacy, to prevail with him to forego a bombardment of the city. After the conference was ended Key and his associates were not permitted to return, and so were compelled to remain aboard the flagship and witness the battle between the fleet and the fort which followed.

And through the long vigil of that terrible night, exposed to the fire of the fort, the "rocket's red glare," and "bombs bursting in air," disclosed to their strained vision that the flag was "still there."

When the sun rose from the broad bosom of the Patapsco the next morning its new-born rays kissed the torn flag, causing its "broad stripes" to gleam more deeply crimson, and its "bright stars" to shine more brightly. As the sun rose higher through the murky atmosphere Old Glory waved proudly, defiantly and triumphantly over the crippled fleet that lay still and quiet with broken spars, torn rigging and tattered sails. It was during the "perilous night" that The Star-Spangled Banner was conceived and firmly fixed in the patriotic mind of Francis Scott Key, and registered in words of fire in his loyal brain, needing only pen and paper to preserve it to the Nation.

Then Robert told us of the Battle of Baltimore, on September 12, 1814, when

a British army, under General Ross, advanced against the city. He was met by an American force, including the "defenders," or home guard. Among the latter were two apprentices, Wells and McComas, who as sharpshooters or "snipers", were ensconced amid the branches of a tree by the roadside.

The brave but reckless General advancing at the head of his troops declared that he would eat his breakfast either in Baltimore or in Hell. When he came within easy rifle range of the boys two shots rang out, and the luckless General fell headlong from his horse, and like the antiquarian gent of the Stanislaus, the subsequent proceedings interested him no more. The advance



Bringing him to net

of the foe was stayed and the city was saved. It is presumed that the doughty General partook of his matutinal repast the next day in some Plutonian hostelry, where it is hoped that the cuisine and service were to his liking.

IN 1852, when I was sixteen years of age, and had just finished my studies at the high school, my father concluded to anticipate the advice of Horace Greeley and "go west." There were several reasons for his determination, the chief one, however, was that the change of climate might prove beneficial to my mother's health. Accordingly, our family removed from the historic city of Baltimore to the "Queen City of the West." As the Baltimore and Ohio railroad was not completed farther west than Cumberland, Maryland, we traveled by the Pennsylvania railroad to Pittsburgh, thence by steamboat to Cincinnati, Ohio.

While the journey was slow and somewhat tedious, it was not uninteresting, as the scenes and incidents were new and novel. Railway transportation was then in its infancy. The rails were flat strap iron bolted on continuous stringers, and

the rolling stock was quite primitive. I saw a freight locomotive that was equipped with a walking-beam, like a low-pressure steamboat. At that time the Appalachian mountains were not tunneled, so that they were crossed by means of a series of inclined-planes, by which the cars were hauled up or let down by stationary engines at the summit of the inclines. The car was affixed to a heavy iron cable running on pulleys in the middle of the track. I think there were nine inclines between Johnstown, on one side of the mountains and Hollidaysburgh on the other side, so that the passengers experienced many ups and downs on this portion of the journey.

As the canal was also interrupted by the obstruction of the mountains, the canal-boats were built in sections, so that they could be taken from the water at, say, Johnstown and transported to Hollidaysburgh, there to be again placed in the canal, and *vice versa*. The inclined-planes were furnished with double tracks, so that while a car was ascending on one track, a section of a canal-boat was descending on the other, the weight of each being thus somewhat counter-balanced.

In this day of rapid transit when even the Atlantic has been crossed by sea-plane and dirigible balloon, it seems almost unbelievable that such primitive methods of transportation were in use on one of the greatest of our railways but sixty years ago.

At Pittsburgh the high-pressure steamboat was both a puzzle and a curiosity. It was hard to imagine why, with such a low boiler deck and so few inches of freeboard, the boat was not swamped, or the fires under the boilers extinguished. When I was informed that some of the up-river boats, with overhanging guards, had a draft of but twelve or fifteen inches, the wonder to me was, that with such a lofty and heavy superstructure the boat was not capsized in a heavy blow; but when I saw the big twin engines and the battery of huge boilers, and the immense deck load that served as so much ballast, the mystery was explained.

As we journeyed down the Ohio River I was much impressed with its extreme loveliness. The low, green hills on either bank, the quiet coursing of the stream around the bends, and the reflection of the drifting clouds in the still reaches formed a never-ending panorama of beauty and delight.

ON arriving at Cincinnati everything seemed strange and different. Instead of a forest of tall masts and tapering spars of vessels, as in the harbor of Baltimore, there was a jungle of smoke-stacks rising from hundreds of steamboats that were crowded, tier after tier, about the wharf, boats and levee.

Above the noise and confusion, blowing of whistles, escaping of steam, could be heard the rhythmic refrains of negro deck-hands and roustabouts as they loaded or unloaded freight, sometimes from the same boat. They were encouraged or abused by the mates in order to put more speed and energy into the hurried work.

After becoming settled in our new home my father was quite desirous that I should go to college, but I pleaded for a little more time, so that I could look about me, not having decided as to my future course. In the meantime I was offered a position as a proofreader in an establishment where stereotype plates for books were prepared. I was considered very proficient in correct spelling, so after a thorough trial by the superintendent, who seemed to have all the hardest words of the English language on the tip of his tongue, he was satisfied that I would do, and very willingly offered me the position, which I accepted, temporarily, after conferring with my father, and gaining his consent.

At this establishment books on every conceivable subject, embracing science, art, letters and fiction, were produced, so that my position as proofreader was by no means a sinecure; but on the other hand I soon discovered that it would be quite an education for me, possibly a better one than a few terms at college would provide, especially for the practical affairs of life.

As I had many spare minutes from my duties as proofreader, I naturally became interested in the work of the compositors, and it was not long until I learned the "cases" which held the types. I also soon learned the different fonts, and the various sizes of type, as long primer, bourgeoisie, brevier, minion, nonpareil, agate, pearl and diamond; these indeed were words to conjure with, and they appealed to me very strongly.

Then, at my request, I was given a daily task at composition, when it did not interfere with my proofreading, and for this I was given extra pay. I was soon on familiar terms with the composing stick, rule and galley, and later with chase, furniture, quoins, mallet and block of the imposing stone. Beyond taking proofs of the pages of the books there was no printing done; it was clean, interesting work, much in accord with my inclination, and I became very fond of it.

During my connection with "the art preservative of all arts" at this establishment I worked on books of all description, and on a multitude of subjects. Among other books, which I liked exceedingly well, was a series of school books, comprising McGuffey's six readers, an arithmetic, an algebra and a geometry. The type-setting of these books required unusual care and technical skill. There were also music books of various kinds and sheet music, including collections of sacred music for churches, of secular songs for schools. One collection of songs used "patent" notes, the head of each note being either round, square, triangular, diamond, etc., which corresponded with do, re, mi, fa, sol, etc., and required some care in setting.

It happened that there was but one man in the concern who could set music type. Owing to my love of music, and also as a matter of curiosity, and moreover, being encouraged by the music compositor mentioned, I became quite familiar with the many types used in music, of which there were several hundred, occupying several cases. It happened, also, that there was a sudden influx of music work, and an additional music compositor not being available, I was asked if I knew anything of music, and replied that I had a little knowledge of it; the foreman then suggested that I learn the cases and set music. He was somewhat surprised when he learned that I knew the cases and could set music. Thereafter a great part of my work was preparing pages of music books and sheet music. My wages were now double, and I was reading proof overtime.

At that time Cincinnati was the center of the pork-packing industry and was known as "Porkopolis." As the "Queen City" it was the chief manufacturing city



Out where the big fellows are

of furniture and carriages. One-half of the city lying north of the canal, or "over the Rhine," was peopled entirely by Germans, and naturally, was the principal manufacturing city of lager, or cellar beer, as it was stored in cellars during the winter and drunk the next spring and summer. Nowadays, when it is made at all, it is ready for consumption in a week or two, owing to rapid chemical methods. The beer that made Milwaukee and Cincinnati famous will never be known again.

The beautiful river on which I had sailed from Pittsburgh to Cincinnati dwindled during the winter to the proportions of an ordinary creek, and was being waded, near the city, by adventurous boys. A cold wave occurring about Christmas resulted in freezing the river for hundreds of miles. On the following Sunday I skated up to New Richmond, about twenty miles.

I HAD now formed the acquaintance of a small coterie of congenial friends about my own age. Four of us, being musically inclined, formed a string quartette and also a brass quartette in which I played second violin and B-flat cornet respectively. We spent most of our evenings in diligent practice, and in the course of time we were said to produce pretty fair music. At

all events our services were often in requisition for social functions, especially as they were offered without the hope of reward or other emolument, except the mutual pleasure and amusement of our friends and ourselves.

We had some friends just over the border in Indiana, by whom we were invited to attend a reception and dance on a Saturday night. There happened to be a wild pigeon roost a few miles away, and our friends invited us to view the wonderful sight on the following day. We went in wagons and on horseback, and on reaching the place it proved to be, indeed, a wonderful sight.

The roost covered a space of several miles, and the branches of the immense trees were occupied by thousands and thousands of nests while the ground was strewn with broken limbs and branches, torn nests, crippled birds and helpless squabs, which were being devoured by numerous hogs. About sundown we were aware of a rushing sound, like the surf of a heavy sea, which soon increased to a roar, and the sky became darkened, as with the swiftness of the wind the old birds in vast hordes came darting to their nests.

As the squabs were being fed many of them were crowded out of the nests and fell to the ground, when they were picked up and put in sacks. Crowds of men and boys and some women were now flocking to the scene, and with long poles and short clubs were knocking the nests and old birds from the lower limbs. Fires were kindled and lanterns lighted and still the old birds continued to swarm in, regardless of the tumult, turmoil and uproar. When our curiosity was satisfied we were glad to leave the horrid scene and the remorseless and merciless slaughter.

This roost was quite a small one when compared with those described by Audubon and Wilson many years ago, which were said to extend for forty miles and several miles in width. It is, indeed, sad to reflect that the beautiful passenger pigeon, the most shapely and swiftest that ever existed on the American continent, has, through the greed, cupidity and wantonness of man become entirely extinct. The millions upon millions that in days gone by winged their way over our vast forests in countless myriads, engaged in the peaceful procreation of their species, have been swept from the face of the earth by human and inhuman agencies. It is a reproach to the manhood, integrity and intelligence of the nation.

I am indebted to Mr. S. A. Stephan, general manager of the Cincinnati Zoological Garden, for the following interesting history of "Martha," the last and sole survivor of the once numerous race of passenger pigeons.

"In 1878 we purchased three pairs of passenger pigeons, which were then quite common, paying two and a half dollars per pair. They bred regularly in the cages. Martha was hatched on September 12, 1885, and died on September 1, 1914, twenty-nine years of age. She was presented to the Smithsonian at Wash-



THE KING OF THE LILY PADS

HE CAN BEAT THE WHOLE LAKE AND HE KNOWS IT; ALL HE WANTS IS ELBOW ROOM AND HE'LL SHOW THE PLUG A THING OR TWO

By LIEUT. WARREN H. MILLER, U. S. N. R.

HE'S BOSS! he believes it himself; he honestly thinks he owns that whole lake, or at least his own particular section or cove of it, where he resides! Hence, he's fussy and particular, like some gouty old gentleman with a bad liver, and, when anything comes into his precincts, he wants to know all about it—to rush savagely at it and annihilate it, if an enemy; to grab it and bolt it alive, if anything edible. Such is the true character of that pugnacious game fish, the black bass; and it explains why monstrous inventions, that wiggle and dive, rouse him to sudden fury; and why your innocent topwater, floating quietly on the glassy bosom of the pond while you are profanely arguing with a backlash, will be suddenly biffed yards into the air, by a strike from nowhere in particular down in the dim depths below. It also explains why a plug, slammed hard enough to go through the shingles of a barn and hook a cow, will not frighten him in the least, but instead bring forth a strike as sudden and as savage as the landing of the lure. He can lick the whole lake, and he knows it; all he wants is elbow room, and the small fry to keep away, and he'll show that plug a thing or two!

I have fished for black bass from Florida to Maine; casting, fly fishing, bait fishing—depending upon the weather and the size of the bass, and never yet have I seen his equal for spunk and punch. The circumstances surrounding his taking; the setting of Nature's stage for the drama; the dash and nerve with which he casts his hat in the ring and puts you on your mettle as a man and an angler—all combine to make him a most popular fish for me, one that I will give up almost any other date to take on. I presume that he is the toughest lot that wears scales; see-a-head-



The author casting for bass

and-hit-it, is his real name. His battling pugnacity, and his wide, almost universal distribution, make him the most popular of fresh-water game fishes.

To me, bait casting for him is the cream of all ways of taking him. That little five-foot rod, which, to cast with, is a fine art in itself; that jeweled quadruple-multiplying reel, that will spin for thirty seconds with one whirl of the thumb; that fine, braided silk line, kept down to 12 pounds breaking pressure, so

as to give him a fair show; and the astonishing lures, each one more diabolical than its predecessor, yet each taking its fish at certain times and seasons for no explainable reason—all this is man's tackle, son, and it takes something more than an old lady to wield it, too.

I USE the fly rod when they are running too small to attempt conclusions with a regular bait. It is undoubtedly true that a bass of three-quarter pound weight is chary of attacking a plug half as big as himself. In clear water lakes I've watched them follow such a plug, chasing it valiantly out of their territory, but not offering to pounce on it, as a bass of a pound or over would eagerly do. And in lakes where they were all small, I've cast for hours, with all art and a large assortment of plugs and pork lures, without a strike, only to go back over the same ground with a fly rod, a Silver Doctor and a Montreal and land doubles every other cast! Of course I have caught plenty of small bass on plugs—we all have—but as a rule they'd rather not, if something meek, like a fly, is presented to them.

And there are days when not a bass will touch a plug. Hot, still, muggy, midsummer days, when the pond is a glassy mirror, and the fish are all rock-

ing in their hammocks and keeping cool. Then is the time that the small frog, the helgrammite, the crawfish and the nimble angle-worm get into the sketch. Are you a wormist? Did you ever snatch for the d—mned things of a summer night—on your knees, lit by a lantern—when you tiptoe a long like Hamlet, watching for that glistening streak of maroon, in the grass or on the garden soil, that tells you he is out and prowling about for his prey? But, he can go like a deer, son; and wormist is he,



The lily-pad domain of the most popular of fresh water game fishes

alone, who can strike with thumb and forefinger knuckle and get him behind the ears every time! Are you a frog-gist? Can you tuck your belly in above your knees, and hover over an oozy pool, with cupped hand, yearningly snatching at the empty air where once passed a green froglet, propelled by the nimble hind legs of him? And how are you on turning over a brook stone and nailing a crawfish or a helgrammite, before he sees you first and hooks lovingly into thumb or toe? For, you must be all of these to go bait-fishing for bass. Some there be who delegate this to the small boy of the countryside, at one cent per each; and others, city dwellers, who go down on West Street and buy them, sequestered in a box of green moss. But—at any rate—have them, boy—have them all along, and a pail of minnows besides, if you want bass on a flat-calm July day.

THE bass calendar is simple and easily remembered. The laws open up in mid-June or thereabouts in most states, and you hit the trail for your favorite lake or pond as near on Opening Day as you can make it. The fishing will be fine, until about mid-July. Then comes a slack. It falls off, except for the little fellows, and does not begin again until nearly September. A sort of lethargy assails the fish. I don't know what they do, but they *don't* strike! I have watched three big fellows, of three pounds each and over, all contemplatively speculating over *me*, wondering what sort of idiot was up there on the rock, and what had he done for it, and when would the hanging come off, and so on, until it got on my nerves. Dibble a topwater over their heads—they'd eye it with scorn! Drop a plug down to them—they'd carry it gently over to a crack in the rocks and drop it in! Joint up the fly rod and heave a fly at them—they'd get into an argument as to whether it was an Abercrombie or a Mills, but touch it—never!

In September, however, the bass fishing gets prime again and stays so until late in October; and down South, of course, I've taken them in February, although in the North Carolina uplands the water gets so freezing cold that no bass will strike and very few pickerel. While the cream of the bass fishing is in June, in late August and the whole of September, is mighty fine, particularly in the Adirondacks, and in lakes all over the North not too heavily fished. I generally take a tent and a companion, and, with both bait casting and fly rods in the same canvas case, with the folding landing net lashed to it, I hit the trail into the mountains to some lake that I know of, where one can take enough to eat and a few to throw back. Live bait we get on the ground; plugs and flies we take with us; also enough pork rind to make a quantity of pork minnows and chuks, for often this lure, hung in the shank of a large red fly, is the best taker of the lot. Six plugs and a dozen flies are plenty. Something white, with a red slash on it, seems the best formula for general bass fishing. Most of them are



Bob Davis ready for a strike

made with a slanting front face, so they will dive and wiggle as they are retrieved through the water. They have three hooks: one on each side of the throat, to take care of a fish striking from right or left, and one at the tail for pike. Generally these hooks are treble, so you will not lose a pike strike. It is a curious superstition among anglers that these baits are inhumane. Indeed I have found many a dry-fly purist whose nose was permanently dislocated in an upward direction, from sniffing over the shortcomings of those who use such baits. A moment's reflection, however, would have shown him that they are, on the contrary, the most humane bait there is, for they cannot be swallowed, like a hook with a live frog on it, nor caught in the fish's tongue or gullet as with an artificial fly; in fact, the only place they *can* catch is in the lip of the bass. This lip is horny and covered with fine rudimentary teeth, so that he has no pain from the hook, no dragging his poor stomach inside out, as with live bait, and no torn gills or gullet as with flies. And, at no time can he get more than one hook in his mouth. The bass strikes for

the throat of his prey. That is the reason the red slash is so effective; it resembles gills, and so here go two hooks, one on each side, for of course he must come from one side or the other. A third hook, at the tail for a pickerel or pike who strikes from behind, or for a bass chasing the plug—and there you are, armed logically and effectively! And yet many haughty anglers there be, who wrap yards and yards of vindictive breath around the numerous hooks adorning the agile plug!

ONE of the most effective all-around baits, particularly in lily-pad lakes, is a home-made contrivance, cobbled up out of a red Bing fly, a spoon, two swivels, two split rings and a pork rind minnow. This red fly is a large one, tied on about 4/0 size of hook and weighted with lead so it will cast well. You could make a dozen of them for the price of one, by buying the bare hooks, raiding your wife's hat for a red feather, and tying them yourself, with a bit of lead solder wire under the wrapping. Split rings are a few cents a dozen, and small brass swivels ditto. Choose a bright nickel spoon and get a dozen of him also, and your whole bill will not come to a dollar, whereas a dozen of the red flies will cost you \$6 "as is," not counting the other elements of the bait. And I like a dozen of him, because he sinks beyond recall if snapped off into the middle of the lake by a backlash, or if hooked down deep in the lily-pad stems, or if caught in a rock crevice or snag—anyone of a quantity of perils that beset a bait.

Well, let's grant, for the sake of getting on with the story, that you have got your list of commodities specified above. Make up the bait as follows:

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I use the fly-rod when they are running too small for a regular bait

THE NORTHERN PIKE OF LEWEY LAKE

ONCE FAMOUS [FOR [ITS BROOK AND LAKE TROUT THIS ADIRONDACK SHEET OF WATER BECOMES THE HOME OF RAVENOUS PIKE OF HUGE PROPORTIONS

By TAMARACK

IN these days of widespread employment of the short bait and plug-casting rod, with the northern pike a popular object for this form of angling activity, it is strange that in journals devoted to fishing, reference to Lewey Lake seldom occurs.

Lewey lake—in Hamilton county, the Adirondacks—is a body of water some one and one-half miles in length and about one-third that distance in its greatest width. Contrary to general belief this lake did not take its name from the late "French Louie" Seymour, the famous trapper. Its present appellation was borne long before "Louie" passed through the locality, between thirty and forty years ago, on his way to the old Newton's Corners (now Speculator) before he settled in the West Canadas. There, as his neighbors spring and fall, a companion and myself were wont to steal hours from fishing and hunting to play youthful pranks on the forest recluse.

When Louis Seymour first viewed this lake its shores were free from the standing and fallen dead timber which encircle it to-day. With the high spruce-capped peaks of the Blue Ridge rising from its western border, and its general wilderness aspect, it was considered one of the notable lesser Adirondack lakes of that day. Nor was this reputation dependent upon natural beauty alone. Lewey Lake teemed with brook and lake trout. And, fed as it was by the wonderful Miami, it was thought by many competent to judge to be the greatest natural hatchery for these varieties of trout in the whole North Woods.

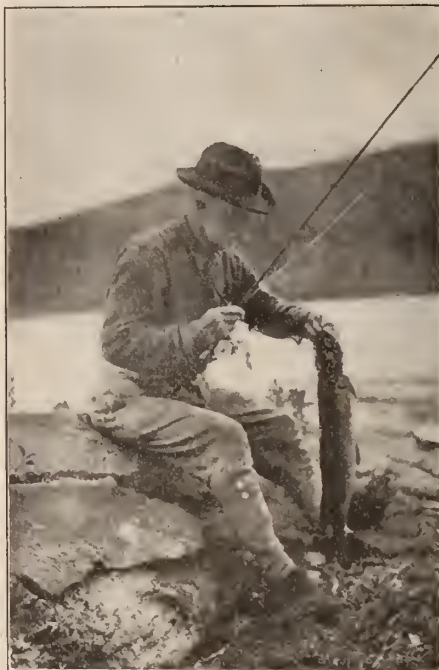
McCormack's little log hotel on the east shore near the head of the lake, typical of outlying Adirondack hostleries of the period, entertained such anglers as did not choose to camp out. The widely known character of the fishing assured it patronage throughout the long open season that then obtained in the forest preserve. Men prominent in the affairs of the nation fished Lewey lake in those days.

Then the dam at the foot of Indian lake, distant ten or twelve miles north-east, was increased in height, and Indian and Lewey lakes became virtually one. The flow of Indian lake in establishing the new level in Lewey lake killed the timber surrounding the shore line of the latter and imparted to its borders the desolate appearance characteristic of flooded country.

The incoming tide of Indian lake carried into the trout waters of Lewey lake countless numbers of huge northern pike. What happens to the menhaden school when overtaken by the bluefish pack took place here, and if the destruction was longer drawn out it was none the less complete. Soon there were no brook

trout in Lewey lake. The lake trout, however, were able to abide with the invaders, and continued in reduced degree to propagate.

As Lewey lake formerly had long been famous for its brook and lake trout, so in its new character as the home of big northern pike it became prominent, and with good reason. It is doubtful if in the whole state its equal in this respect existed. Prodigious tales of the voracity of these "pickerel," as they locally were designated, spread about the woods. For instance, the raising of ducks ceased



A denizen of Lewey Lake

longer to be a profitable venture with the little hotel. Hence when big John Sturges backed his boat up into the mouth of the Miami of an early morning to enable his green "sport" to witness the spectacle of "pickerel" pursuing rabbits on the dew-laden wild meadows—"the durn sport believed it, 'b'gosh!" as John afterward related the circumstance.

TEN or twelve years ago some friends of mine desired to camp for a couple of weeks during September where they could fish and do a little ruffed grouse and deer hunting, the season for grouse and deer in New York at that time opening in that month. I sent them to Lewey lake, and they got what they went for. I spent the last week with them. The next season, during the last week of September and the first week of October they again camped in the Adirondacks. Disliking the dismal effect of the standing dead timber about Lewey lake, they selected a site three or four miles down on Indian lake and boated

back and forth as their fancy dictated. This time I was of the party during the entire stay.

As many members of the bait and plug-casting fraternity appear to have a hankering after northern pike, I feel that a description of fishing conditions as we found them at Lewey and Indian lakes at that time may prove of interest and value to these pike pursuers.

To reiterate, it is probable that nowhere in New York were larger and more abundant northern pike to be had than in Lewey Lake, and certain bays and set-backs in Indian Lake were not much inferior in this regard. The taking of ten and twelve-pound pike was so common an event as to pass unnoticed. Beyond these figures the fish attained a maximum size as great as northern pike reach anywhere in this region—say approximately twenty pounds, though if I remember aright it considerably exceeded this figure. And they should have been larger here than the pike of other waters, for they had had wonderful incentive to growth in their foraging on the nutritious brook trout and the young of the lake trout, when first the barriers of the falls in the outlet of Lewey lake were broken down by the inrush of Indian lake. I recall that once a side-partner triumphantly held aloft for the inspection of the hired boy at the log hotel, who was rowing by, a pike of fifteen pounds I had just gaffed for him. The youngster disdainfully called back: "Huh, we calls that a minnie here!" and lost never a stroke of the oars in delivering himself of this dictum.

The methods at that time employed by fishermen who resorted to the lake were chiefly skittering and trolling with two big bamboo poles, outrigger fashion. Fishing with live bait was also somewhat in vogue. We tried the Nottingham cast, bait and plug-casting, and gave the fly a trial. One method was quite as effective as another, but the fly, tied on a ringed hook with gimp snell, was abandoned after the first attempt, as the fish could not be controlled with a light fly rod and the accompanying rigging. When hooked they at once made for the weeds and, becoming enmeshed in the rank lake vegetation, were practically imprisoned. The short bait-casting rod, with plug or pork rind, gave the most satisfactory results on the whole, and the greatest degree of sport.

It remained for my partner to discover a new way of catching the pike which, while it may have been lacking in scientific qualities, was productive of results in the number and size of fish taken. This happened while we were camping at Indian Lake on our second pike quest that year.

He and I had started out from camp early one morning; he headed for Lewey

lake in his relentless pursuit of its denizens and I bent on still hunting in the mountains toward the head of the Kunjamuk. Darkness had fallen that evening as I broke out of the woods and tossed an unusually large raccoon into the boat, which I had left drawn up on the shore of John Mack bay. The 'coon, shot as he jumped for a roosting woodthrush, was the sole proceeds of my day's hunt in excellent deer country. While it had been possible to work up a track until the deer could be heard feeding and his scent detected, the heavy foliage, still lingering, rendered it impossible to obtain a sight of the buck in time for a shot. But then the actual killing is the least of the pleasures derived from a day spent still hunting in the woods. And even if regret be felt, there are days to follow when the story will be different.

Three or four miles down Indian Lake our fire, gleaming through the trees, served as a beacon on the row to camp. As the boat grated on the shore the old tropical delver strode down to the landing. Excitement was in his speech, and his discourse was of the Lewey Lake pike: He had gone right into their front yard and pulled them out the doorway. True, his tackle had suffered in the encounter. But in the morning he would show me the proper way of it.

NEXT morning while the guide and I got breakfast he busied himself with preparations for the coming fray, unheeding derisive suggestions by other members of the party. Selecting the heaviest fly rod in our assortment, which had seen service with big square-tails and land-locked salmon, he rigged it to his fancy and cut sundry strips of "sow belly" from the pork stock of the camp larder.

A couple of hours later, as we rowed across the foot of Lewey lake and entered the chosen field of operations among the lily beds, a boat bound to the foot of Indian lake drew near. In the boat were a sportsman and his wife, with a guide at the oars.

"Good morning! Would you care to take out a few nice pike with you?" hailed my partner.

"Why yes, thank you, if you have them to spare," replied the sportsman.

"Well, we haven't got any right now, but we won't keep you long getting 'em," was Baker's confident response as he prepared for action.

His assurance amused the strangers, and they probably were impelled to wait as much by a desire to see his self-confidence shattered as to obtain the fish. Whatever may have been their motive they remained nearby, the guide, his face wearing a good-natured grin, resting expectantly on the oars.

Choosing a circle of water a couple of yards in diameter and free from lilies, Baker drew out about six feet of line and handling the rod in the customary manner dropped in the bait, a white enameled spoon with wire leader and a strip of pork rind dangling from the hook. Letting the bait sink three or four feet, he raised up on the rod and commenced to retrieve the short line. Instantly a huge

pike shot up under our very noses. Making a half-turn, it seized the bait and started off. He struck, at the same instant easing off sufficient line to put the full arc in the rod. And not another inch of line did he give the fish throughout the fight that followed.

At first the pike, as was natural, sought bottom and fought as far below as the tense fibers of the curved bamboo, often swishing back and forth under water, would permit. Then as the steady strain brought the pike near the surface, it raced through the lily pads and floundered upon the top of the water, attempting short dives, until brought to gaff. The contest likely was of ten minutes' duration. Moving a couple of oar strokes right or left, he twice repeated the procedure. Then our neighbors in the other boat, who had experienced keen enjoyment in the merciless handling to which the trout-destroying pike had been subjected, came alongside and received their promised fish. As they proceeded down



The shores were fringed with dead timber

the lake, the loud laughter of the guide was wafted back to us at intervals, and elicited a corresponding echo in my partner's chuckle.

LANDING the pike often presented difficulties; the fish were too large for a net and their thick scales were as armor-plate to the steel gaff point.

In view of these facts the treatment received by a brother sportsman at the hands of my side partner would appear unreasonable and unjust. This occurrence took place some days after the arrival of a party on its first visit to Lewey lake. Until then he had been landing the fish with his hands. On this occasion he was out on the lake alone, bait casting with a stout fly rod, when he got a mighty strike. He hooked the fish and, being on the edge of the weeds in deep water, had a good opportunity to carry on the fight.

When the pike, somewhat exhausted, was coaxed within sight its size startled the old fisherman. Nothing daunted, however, he made ready to land it in his usual fashion of inserting his fingers beneath the gill covers. His efforts were not proving altogether satisfactory, so when old Si rowed up, drew in his numerous poles and volunteered to aid him, he gladly transferred his job to the newcomer. But when Si reached to the bottom of his boat and produced a patent spring-gaff to lift the prize pike from the water, he became dubious of the outcome and objected.

"I don't like the looks of that contraption, Si; it's too much like a garden rake," said Baker.

"Oh! it's all right; it's what I gaff all my pickerel with," was the reassuring answer of Si, as he carelessly entwined the fish with his pet tool and pulled the trigger. At the same moment he lifted the pike from the water.

Si was just about to be felicitated on his skill in using the implement. Reaching for his club, he was on the point of administering the quietus to the wriggling form when, to his horror, the pike splashed back into the lake. Tearing itself free from the hook, it made for the bottom and was soon lost to view.

Si gazed for a moment in crestfallen wonder into the depths whither the pike had disappeared, and then turned to meet a rigid glare.

"I s'pose you don't thank me for losing that nice pickerel," he observed meekly.

"Oh! yes, I thank you, Si—like h—!" was the quiet reply that came back. Si, trustful soul, considered the incident closed, but soon indignation found voice, and efforts of former votaries of vituperation thereabouts counted as naught. While Si sat in awed silence, his oars bobbing idly in the water, the hills resounded with the output.

"That old man is going to kill Si!" came a woman's shrill cry from the kitchen doorway of the log hotel; which probability, enhanced by the sight of the bludgeon in the "old man's" hand, likewise occurring to the object of all this wrath, Si made off with rattling fish poles as fast as he could row. Nor was he again seen on his favorite fishing grounds during the remainder of the stay of our party at Lewey lake.

And, scandalous to relate, in the audience on the lake shore by our tents—gleeful witnesses to the scene enacted by the two old men—the spectator who apparently derived the keenest enjoyment from it was our guide, Jim Sturges, unregenerate nephew of Si himself

IT is probable that the automobile has made marked inroads on the northern pike of Lewey and Indian lakes during the past ten years. But if the fishing is now even one-third as good as when we fished there, it is well worth a visit by anglers fond of plug or bait-casting for these fish. For the intensive general fishing now practised, it is doubtful if to-day—as was the case when we were at Lewey lake—it has an equal in this particular anywhere in New York state.

(CONTINUED ON PAGE 552)

FOREST AND STREAM

FORTY-EIGHTH YEAR



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THE OBJECT OF THIS JOURNAL WILL BE TO studiously promote a healthful interest in outdoor recreation, and a refined taste for natural objects.
 August 14, 1873.

RUFFED GROUSE OR NONE

THE ruffed grouse, noblest bird of the eastern forests, is in danger. Not only is it in danger, but it has actually disappeared from many woodlands where for generations it has lived and propagated its kind. These barren areas are increasing, for the causes that have reduced the numbers of the birds are still operating. The conditions demand serious consideration, and each lover of the gun should determine to do what he can to add to the stock of living grouse in his own territory. He can add to that stock by refusing to kill a single grouse, while the situation remains as it is!

These are some of the causes that work against the ruffed grouse. The covers where they live have in many places been greatly reduced in area, or rendered unfit for occupancy. For several years past their natural enemies have been very numerous, and unusually large flights of goshawks and great owls have come down from the north and taken a heavy winter toll, destroying the birds left over for breeding. The crow destroys the eggs in many a nest and the foxes get a grouse occasionally. Then there are the depredations of the self-hunting dog owned by the farmer, and of the house cat, which most people do not at all appreciate. The destruction caused among all ground nesting birds by the self-hunting dog is great. It hunts at all seasons and destroys large numbers of birds' nests with their eggs and young. Few, except ornithologists, realize the destruction of game and songbirds caused by the domestic cat which hunts, perhaps close to the house.

If to these causes of reduced grouse supply we add the ever increasing number of gunners and the constantly greater ease and swiftness with which they cover ground by motor car and by trolley, it is apparent that the prospects are gloomy for the continuance of our stock of ruffed grouse. Unless we are all willing to do our part to aid in the work of adding to our grouse supply, there is grave danger that in many places the splendid bird must soon go.

The matter really is in our own hands. Have we the will power to do the obviously necessary thing, to refrain from killing grouse, to sacrifice our own present gratification to the public good? The exercise of self control in this matter is altogether worth while. It is a matter of public service. Americans—sportsmen above all—have in recent years shown themselves able and willing to make every sacrifice for their fellows. What about making such a sacrifice as has been suggested for the gunners of a few years hence? If enough men do it the stock of grouse will certainly increase. The self restraint will prove a good investment.

This is a live question. Several States have recently forbidden the killing of ruffed grouse until 1920. Other States have shortened their open season or reduced the bag limit on these birds. In States where legislative action has not been taken, local individuals and associations should agree among themselves that grouse are not to be shot. Many men—though perhaps not all—would live up to such an agreement. We recall a community where over-shooting and hard winters had brought the quail down to such a low point that only one or two broods were known to have been reared in two or three adjacent towns. The local gunners agreed that they should not be shot and none were shot, except possibly three or four by boys, who perhaps acted before they thought. The result was a notable increase in quail during the next four years.

Fellow shooters, the situation is serious, and we believe it the duty of each one of us to go abroad next season determined that under no temptation will we shoot a ruffed grouse—a partridge. Though it is the bird we most love to follow, the one that gives us the greatest satisfaction and triumph to secure, nevertheless, for this coming season—and perhaps for other seasons after this—the good sportsman should be satisfied with the occasional woodcock or pheasant that he may be able to pick up and should save the ruffed grouse for seed.

Have we sportsmen the intelligence to see that we ought to follow this course, and have we the will power to do it?

ROOSEVELT MEMORIAL ASSOCIATION

THE Roosevelt Memorial Association has been formed to provide memorials in accordance with the plans of the National Committee, which include the erection of a suitable and adequate monumental memorial in Washington; and acquiring, development and maintenance of a park in the town of Oyster Bay which may ultimately, perhaps, include Sagamore Hill, to be preserved like Mount Vernon and Mr. Lincoln's home at Springfield.

In order to carry this program to success, the Association will need a minimum of \$5,000,000, and so that participation in the creation of this memorial fund may be general, it asks for subscriptions therefrom millions of individuals.

Colonel Roosevelt was the greatest American of his generation. He blazed the trail which this nation must travel. Unselfish and sincere in purpose, unswerving in seeking the right and following it, definite and direct in action, with his theory of personal responsibility for wrong-doing and his creed of "the square deal" for all, he gave a lifetime of devoted public service which must stand as an inspiration to the youth of this land for all time. Ardent American, believing profoundly that only through fullest acceptance of America's privileges

and responsibilities could the people of this country realize their highest well-being and fulfill their obligations to themselves and to humanity, he set up ideals which it is not only a duty but a privilege to follow.

A memorial to this man will not so much honor him as honor America and the citizens who raise it to him. A contribution to the Roosevelt Memorial will be, in the highest sense, a pledge of devotion to ideal citizenship. Checks may be sent to Albert H. Wiggin, Treasurer, Roosevelt Memorial Association, 1 Madison Avenue, New York City.

OCTOBER COLORS

NOWHERE in the world is there spread out annually for a few brief weeks such a spectacle of changing color as is seen in autumn over the eastern half of North America. Each year we admire and wonder at it and each year it seems new to us and more beautiful.

If it lacks the striking color and variety of the tropical flowers, its softer tones and homely beauty make it—to most of us at least—far more attractive.

Brown cornfields, dotted with shocks of stalks and yellow pumpkins, and wheat or rye stubbles, above which the gray ragweed rises rank, are full of suggestions of feeding quail, of quartering dogs, staunch points and the tense excitement of walking up to the birds. It is for such moments that we go abroad with the gun, but there are joys as real as these in the quiet contemplation of a scene in which no birds are found.

Scarlet sumacs flame along the hedgerows and above these stands the orange frondage of gnarled and knotted sassafras. Back of the sumacs glow dull red leaves of hazelnut bushes and sometimes a dark cedar rising from the hedgerow is wreathed with the brilliant red of the Virginia creeper or the yellow of poison ivy or the paler foliage of bitter-sweet.

In the swamps the soft maples have turned to orange, to change a little later to flame color; and then the topmost twigs will lose their leaves and over the whole swamp will seem to lie a gray haze, forerunner of the general bareness of early winter, when only the green of pine and hemlock will interrupt the universal gray.

In the silent woods the eye meets a confusing maze of color. Leaves are losing their hold on the twigs and slowly fall to earth with a wavy, spiral motion. If a breeze stirs the branches the leaves shower down. The quiet black pools in the brooks are thickly dotted with yellow jewels.

Although it seems so silent in the woods, if one stops to listen he will hear now and then the thump of a falling nut, the distant drumming of a grouse, the chatter of a squirrel or the faint call of some far-off bird.

In the Rocky Mountains of the west the autumn colors are far less vivid. Deciduous trees are few there and the dark green conifers stand always unchanged, save for the tamarac which each autumn sheds its needles. Only along the streams are seen the winding yellow lines which tell of cottonwood, or in wet places high up on the mountainside little patches of changing aspens shine like sunlight against the evergreens and later turn to brown or orange. Sometimes a shrub of mountain maple makes a speck of vivid color, or in some forest burning a growth of fireweed shines red among the gray trunks and heralds the approach of winter.

FOREST AND STREAM FOR NOVEMBER

THE November number of FOREST AND STREAM will have a number of interesting features. The cover will be a reproduction of one of Carl Rungius' inimitable paintings—depicting a bull moose in the Canadian woods. H. A. P. Smith, ex-president of the Nova Scotia Guides Association, writes with authority on the proper way to call moose and M. L. Lochenour has written an account of hunting in the little known Allenwater country of Northern Ontario. Our old correspondent, Widgeon, has contributed one of his delightful reminiscences of ducking days on Barnegat Bay and Armour W. Barbour tells of his experiences with the wild-fowl of Long Island. Warren Miller has written an article on quail shooting in the south and Frederick A. Willits continues his serial on our water-fowl with an account of sea duck shooting. Mr. Willits has been exceptionally well fitted for this work by many years of close study and observation. His love for this alluring sport is inherent, as his father is a well known sportsman and at the age of sixty is still active on bay and marsh, while his grandfather, who died recently at the age of ninety-two, shot continuously until his eighty-ninth year. Major C. H. Stigand, the well known African hunter, continues his natural history studies with an account of the Black Rhinoceros. Dr. Henshall's autobiography is continued and Leonard Hult has produced another one of his fishing tales concerning the boy Matt, whose picture will accompany the narrative. There will be a number of short articles of interest and the regular departments will have their share of practical information, including an article by Charles Meakins on log cabin construction.

VIRGINIA GAME SANCTUARIES

VIRGINIA will soon have a system of game sanctuaries, if the plans of Commissioner of Game and Inland Fisheries, F. Nash Bilisoly, are carried out, the result of which will keep the state well stored without danger of depleting the supply of birds.

Proceeding somewhat upon the principle that as the department's activities for the protection of game and wild life are dependent for support upon the licenses collected from hunters, Commissioner Bilisoly believes it to be only right and proper that the hunters should have game to shoot. He therefore proposes a plan which he thinks will be a practical success and hopes to put it into effect in time to have the coveys replenished from the new stock he intends to put down in the preserves, scattered throughout the state, next Spring.

It is the Commissioner's idea to arrange with owners of tracts of from 200 to 400 acres, situated one in each of the 400-odd magisterial districts in the state, to give the Commonwealth exclusive shooting privileges on such tracts, which will immediately be posted and the mated pairs of quail, 4,000 of which he is arranging to secure from Texas, will be placed on these farms. Each of the owners of these game sanctuaries will be given police power as a game warden.

The quail will be fed for the first few weeks on the preserve but allowed to go in the outlying territory, upon which they may be hunted. They will speedily learn the places where they are not disturbed and will return to them. The Commissioner holds that it is safe to allow a reasonable amount of hunting, for, until the coveys are broken up, the birds lead a family life and do not mate.



THE WHITE RHINO OF THE LADO

SOME INTERESTING NOTES CONCERNING ITS LIFE HISTORY AND HOW IT DIFFERS FROM ITS COUNTERPART OF THE AFRICAN WILDS, THE BLACK SPECIES

By Major C. H. STIGAND

IN the old days numbers of so-called "white" rhinoceros used to roam the plains of South Africa. The chief difference between this and the "black" species is that the white rhino is a grass eater, and has a square lip, whilst the black rhino has a pointed and prehensile lip, which enables it to strip the thorn trees of their leaves. In size the two animals are much the same, the white rhino is perhaps a little larger and stouter than its counterpart. The terms "white" and "black" seem to have been given to the two species from the fact that the square-lipped kind, being a grass eater, was generally seen in the bright light of an open plain, whilst the pointed-lipped species was more often seen in the shadow of thorn trees. In reality the two are of much the same color—a blackish grey, when clean, and the color of the soil, when dirty. They are both fond of taking mud baths and in the laterite soil, so common in Africa, they often appear bright red in color.

The base of the anterior horn of the white rhino is squarish in front, like the lip, and a single horn of this species can be easily distinguished by this characteristic. A section of the base of the horns of the two species would be something like the diagrams below.

In recent years, after the white rhino had become practically extinct in South Africa, it was found to exist in considerable numbers in the district known as the Lado Enclave. It is now known to occur on the west bank of the Nile from Shambe, just south of the sudd region, to Lake Albert, and also ranges westward some distance into the eastern Congo. It is strictly confined to the west side of the Nile, no specimen having been recorded from the east bank.

NOT long before the war Lord Kitchener asked me to try to catch a young white rhino for the Cairo Zoo. As soon as I could find time to leave my duties in the north of the Enclave I went with my wife to a spot known as rhino camp, on the upper navigable stretch of Nile, not far from Wade-lai. The country is uninhabited; there is much game and rhino are especially abundant there. I took with me a party of Madi, whom I enlisted at Dufile, with their game nets—nets made of thick locally-made rope. On arrival at the camp we went through a few rehearsals of putting up the nets quickly and without noise. A fallen tree or a bush was

MAJOR STIGAND is one of the most noted of recent African big game hunters and explorers, and he is also a field naturalist of unusual powers. His studies of the tracks of animals have been almost unique. The only studies approaching them are those about the tracks of game of continental Europe, in the hunting books of the seventeenth century. He has the keenest appreciation of the vivid and extraordinary beauty of the teeming African wild life and has made close first-hand observations of the life histories of very many species of big game.—[Theodore Roosevelt in foreword to Major Stigand's book, "Hunting the Elephant in Africa."]

made to stand for the rhino and the natives put up the nets in a semi-circle downwind of the object representing the quarry. Cases of tinned milk had been taken with us to feed the young animal in the event of capture. The next thing was to find a suitable rhino calf. After much hunting about and changing of camp a female rhino and her calf were located. I shot the mother and, as expected, the calf remained standing over her body.

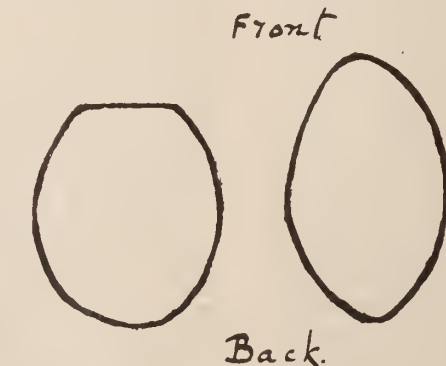
A runner was sent for the nets and presently a crowd of Madi arrived. In spite of the rehearsals there was a certain amount of noise and confusion and not enough was made of the available material, the nets being spread on too short a frontage. As the rhino showed signs of being alarmed there was no

breaking away to a flank. We then gave him our scent. He threw up his head and charged, not for the nets, but for the natives standing to one side. The snorting young animal, about as big as a cow, was such a good imitation of a full grown rhino which, in its turn, is such a good imitation of a locomotive roaring through its funnel, that the natives broke away and it went straight off.

We searched for this young rhino for some days and sighted it three times, but it would never stop long enough for us to bring up the nets. Once I crawled up within ten yards of him with a rope but was unable to hitch it onto him. The day before we had to leave, another rhino and calf were sighted. The calf was rather bigger than we wanted but it was the only one available. I shot the mother and this time the nets were run up quickly in a wide semi-circle and when we gave the young rhino our wind he charged straight for one of the middle nets. He struck it and when I saw it stretch and envelop his whole body, reminding one of a rabbit in a purse net, I congratulated myself on having him safe. The next moment, however, we saw him careering away the other side of the net, he had gone straight through without even stumbling, or breaking his stride, leaving us nothing as a souvenir except a great hole bordered by broken strands of rope. It was evident that one should have either stronger nets or a double line, or get the animal earlier in the season when younger. I never had a chance of going down there again.

The natives of Nyasaland say that the female calf runs with the mother and the male with the father, but this is not so. The calf always runs with the mother and stays with her until it is almost as big as herself. If one meets with two rhino of about equal size it is almost certain to be a female and a grown calf and not a male and female. The male is not often seen with the female; he seems to graze in the same area but rests under different trees. He is generally not far away and probably always knows the female's whereabouts, partly by scent, partly by instinct and partly by a knowledge of their joint habits.

MANY writers have remarked on a habit the rhino is supposed to possess of tossing his dung with his horn. I cannot help thinking that whoever started this story made it in all good faith from jumping to a mistaken



time to readjust the nets, so a line of natives was drawn up on each side with the object of shouting to stop the animal

conclusion and that subsequent writers have religiously copied this without testing its truth. I have seen hundreds of both black and white species and watched them for hours at a time from close quarters and through field glasses, but never witnessed such a proceeding. In point of fact the rhino deposits his dung in rather a singular manner. He is very fond of using the same paths and in all rhino country these well beaten tracks may be seen. At intervals along the main routes one notices little sidings which they use as retiring places and they almost always return to one or the other of the places. They back in stern first, deposit their dung on the great pile already there and then go through a perfunctory scratching up of earth, by executing a back shuffle with the hind legs. Thus each of the little sidings to the main track are marked by furrows, or

scratches on the soil appearing all around.

Another point on which different writers are at variance is as to the range of vision. From many encounters with rhino I am convinced that they are as short-sighted as elephant and cannot see well beyond twenty yards or so, therefore that they cannot see, or charge the hunter on sight, from distances of one, two and three hundred yards, a performance they have often been credited with. Either they have got the hunter's wind, or have been alarmed by birds and are running away blindly in whichever direction seems best. The rhino's hearing is only mediocre but its scenting powers are very good. A rhino will often charge on scent but also, owing to its habit of rushing blindly in any direction when alarmed, it is often accused of charges which it never intended. For instance, the hunter is approaching a rhino from

downwind. The rhino has no notice of his approach until it is warned by birds. It then gets up and looks earnestly in several directions, seeing nothing but perhaps bluffing the hunter that he has been observed. Then it decides on running away, it puts down its head and gallops off downwind, puffing loudly, and passes close to the hunter.

There is a very flat and large tick, about the size of a dime, with bright red markings. This tick, known as the rhino tick, is peculiar to rhino and its presence on the grass is indicative that these animals are, or have been, in the locality. The rhino is generally infested with these and other ticks and, on opening up the intestines, they are generally found to contain thousands of large maggots—circumstances which afford a sufficient excuse for his occasional fits of irritability and rather unseemly conduct.

THREE TYPES OF CRIPPLED BIRDS

A LITTLE MORE CARE ON THE PART OF THE HUNTER IN FOLLOWING UP SHOTS WOULD HELP GREATLY IN THE CONSERVATION OF ONE OF OUR FINEST GAME BIRDS

By J. ARTHUR DUNN

LAST season I went quail hunting with two rabbit hunters. Perhaps this statement isn't quite clear. I mean this: Two of my friends are fond of rabbit shooting and, at the same time, take quail hunting as a sort of side issue. They occasionally ask me to go with them and, although the rabbits don't interest me much, yet for the sake of companionship I go with them and try for quail; while they spend most of their time with the cotton-tails. I have long hunted quail without a dog, using only my own native whistle; so there is no fear that my friends will spoil a quail dog through rabbit shooting.

Shortly after we had come into the fields and had separated, I flushed a covey of birds. They scattered nicely and I was getting some good results when my friends came upon me. They saw me working with a lone bird which had gone to a point considerably removed from the general expanse where the majority of the flock had stopped. The quail arose at my feet and I shot at him only once with my double-barreled gun. He didn't stop. However, I shouted to my friends: "I got him!"

Imagine my state of mind when those rabbit hunters hooted at me! They could see the bird flying, by this time fully two hundred yards away. Of course they thought it strange that I should claim a monopoly on that bird.

The quail went perhaps fifty yards farther and went down. I marked him carefully by a tree and by an unusually high weed in the weed patch.

"Come, go with me," I said to them.

They did; and I introduced them, within four or five minutes time, to a perfectly good dead quail.

The fact that they didn't know I had hit that bird made me think that possibly the subject I have chosen might be one of interest to inexperienced quail



hunters as well as to those who have found out for themselves what I am here setting down.

I want almost to say that more dead and crippled birds are left in the field than are taken out. That statement may be a bit too strong. But undoubtedly there are a great many birds left, which, in my humble opinion, would fill the bags of hunters almost as full as those which, at the crack of the gun, fall stone dead. And in this day of scarcity of game, it behooves us to conserve to the extent of using these cripples.

THERE are three distinct types of crippled birds. There is the wing-cripple, the brain-cripple, and the bowel-cripple. Each of these three types shows unmistakable peculiarities at the crack of the gun. It is important for the quail hunter who wishes to conserve, or even to keep within the limit observed in most states, to be familiar with these cripples.

The cripple most easily detected is the winged bird. He goes down at once, of course, with a peculiar side slant due to one wing doing full duty while the other is not working. With a dog, he is easy to find; without a dog easy to catch, if speed and caution are observed. However, even with a dog, I have known these cripples to be lost.

When a winged quail goes down he hides himself, almost always under the first cover. He doesn't run far. If the hunter watches where he falls and goes immediately and quietly to the spot, he

will, in eight cases out of ten, have no trouble in finding him. But if he delays going, because of other birds, he may lose the crippled bird; if he makes a great splutter and hustle he may alarm the bird and confuse the dog so that the bird may be lost or great delay in catching him may be caused. In hunting for five years exclusively without a dog, the writer has lost but few of these winged birds.

The quail shot through the head, the second type of cripple I have named, is easily bagged if he is watched. Almost invariably, at the explosion of the gun, he rises high. He may fly straight up in the air for fifty yards or so, or he may fly high up and soar, gradually coming to the ground from a high point. He will not be stone dead when you pick him up; but he is past going before he hits the ground. When you get your hands on him, and you can in most cases easily do so, for he is usually blinded, hold him tight; for he may, after his rest, take another high flight.

The most common cripple and the one most often abandoned is the quail which has been shot through the bowels. As soon as he is hit, he gives a peculiar twist of the hind part of his anatomy and, almost invariably, drops both legs.

After he has done this he may fly fifty yards or he may stretch it out to a thousand. Rest assured he'll go just as far from his foe as he possibly can. But when he drops he is as dead as he'll ever be. For the reason that quail thus hit fly so far, the hunter of little experience will conclude a miss; just as my friends did when shot only once at the bird I mentioned at the beginning.

A bit more of patience in working with these types will be no small item in the conservation of one of our finest birds. And not only that; many a hunter will go home with a much fatter hunting-coat.



AN INGENIOUS LIGHT

A CARBIDE light for use in spearing fish at night has been made by Jay Smith from an old coal scuttle, a syrup pail, tin can and a piece of rubber hose. The supply of water is regulated automatically. It gives a fine light.

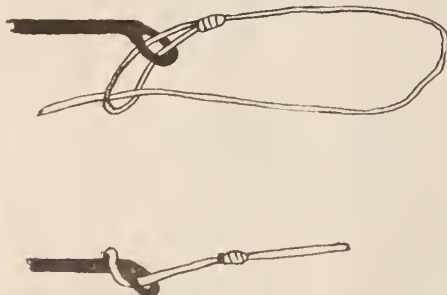
Port Austin, Mich., *Herald*.

THE STRENGTH OF GUT

IT has long been my intention to find out for myself what is the ultimate or breaking strain of gut, such as is used in dry-fly fishing, but, as anyone who is familiar with the testing of materials knows, these things have to be done in a very thorough and careful manner and any idea of economy with time must be totally disregarded.

Testing the strength of materials is not a thing to be approached lightly or with a spirit of levity; if the figures are to be worth any more than the value of the paper they are written on. The operations must be performed with the utmost care and attention to detail that is humanly possible. Another point to consider is this: you propose to deliberately destroy a number of best quality leaders in order to obtain certain information, consequently, unless we are prepared to take the greatest pains possible we are not only wasting time, but also throwing away a lot of perfectly good leaders which are not the cheapest things in the world or the easiest to get hold of these days.

The accompanying table of results gives the bare, bald figures, but without a few additional notes, even those figures are not of very great value.



The common loop knot

The first and most notable thing discovered was, that the strongest of all the guts was the "Treated" gut. This gut has a strength equal to that of untreated and undrawn gut of an area 25 percent greater; but when once this "treated" gut has been subjected to a

breaking strain, the initial stress seems to have utterly destroyed the original strength of the gut. In fact, after the first break at 3.70 pounds the strand broke repeatedly at about 2 pounds.

On the other hand both drawn and undrawn gut seemed to preserve their original strength to a great degree no matter how often they were subjected to a breaking strain. We must also note that undrawn gut has a strength about 14 percent greater than drawn gut of equal diameter.

This proves pretty conclusively that there is a certain virtue in preserving undamaged the extreme outer skin of the gut, which must necessarily be removed or destroyed in the act of drawing.

WE are depending upon the friends and admirers of our old correspondent Nessmuk to make this department worthy of his name. No man knew the woods better than Nessmuk or wrote of them with quainter charm. Many of his practical ideas on camping and "going light" have been adopted by the United States Army; his canoe has been preserved in the Smithsonian Institution; and we hope that all good woodsmen will contribute to this department their Hints and Kinks and trail-tested contrivances.—[EDITORS.]

Real gut is from 15 to 25 percent stronger than substitute gut of the same diameter. When we come to the knots used for attaching the eyed hooks to the gut I find that a knot that I shall hereafter call the "loop knot" is the best of all.

If we put the efficiency of this knot at 100 percent the "Turle" (not "Turtle") knot has an efficiency of 87 percent, and Mr. Hall's "Jamb Knot," 85 percent.

The loop knot is made by first of all tying a small loop at the end of the leader. Slip this loop through the eye of the hook; then put the other end of the leader through the loop and pull through and work the knot into position on the hook.

The disadvantage of this knot is that it cannot be used on very small flies, but it can be used to very great advantage with flies like the green drake, large sedge or grasshopper fly.

In the majority of cases the gut broke at the point where it was attached to the eyed hook, but in a few cases the strand parted in the open, between knots.

ULTIMATE BREAKING STRENGTH OF GUT

Description	Exact Diameter of an inch	Approximate Strength Pounds
Medium	0.0137	5.25
Fine	0.0102	4.25
Finest undrawn..	0.0096	3.75
Drawn *	0.0097	3.30
Drawn **	0.0086	2.80
Drawn ***	0.0076	2.50
Drawn ****	0.0065	1.90

Substitute Gut

No. 5	0.0132	4.55
No. 6	0.0097	3.10

"Treated" Gut

Reinforcé **	0.0086	3.70
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R. L. M., California.

BELT AXE CASE

THIS case is for my belt axe. Instead of the loop being riveted on one side of the case I sewed on the top open edges (there being no flap, as none is needed) a strap and buckle, and when buckled on the belt it forms a 4-inch loop. Unless one takes two belts on an outing the axe scabbard with a one-piece loop is a nuisance. My axe case can be buckled anywhere on my belt and when wanted is quickly unbuckled. Around camp the axe is always in its case hanging up somewhere. I have visited some camps where the outer would have his knife and axe sheath on his belt and very probably the tools stuck in a tree or log—very picturesque, but at the same time very easy for every Tom, Dick or Harry to pick up and either hurt themselves, the axe, or some tree. To pro-



The axe case, loop and protector

tect the stitches from the axe or knife, edge I sewed an extra piece of leather in between. I don't like rivets as a stitch guard. A SUBSCRIBER.



KEEPING WARM WITH ONE BLANKET

A PROSPECTOR in Central Idaho once showed me how to sleep comfortably in a single blanket. Find two logs, about a foot and a half in diameter. Place them firmly, side by side, fifteen inches apart, and lay fir boughs between them, at right angles to the logs.

Then cover the bed with one side of the blanket, and throw the other side over you, thus rolling up in the blanket. The logs furnish protection on two sides, and the top alone is left to be taken care of by the blanket.

JAMES H. HULL, California.

BAIT ON ARTIFICIAL LURES

To the Editor of FOREST AND STREAM: BEING a constant reader of your valuable paper I should very much like to ask you if it is proper for a fisherman to put bait on an artificial lure, meaning, for instance, fishing with a spoon, trawling or even bait casting with artificial bait? I often read the articles in your magazine and sometimes it says to bait with pork rind or minnows and several other kinds of live bait. That being so why not use live bait and leave off the other? I might say that every fisherman cannot meet what I term, the double expense of the two baits.

JOHN BRIGGS, Montreal, Can.

It is quite unusual to use any additional baits when casting with any of the standard lures now in use. The majority of all lures being designed to act in their own sphere, viz., "phantom minnows" and the various plugs, as well as frogs, etc., are depended on to take fish by reason of their natural appearance and similarity to the living object. This condition, however, is changed in trolling with the bloodworm for striped bass and some other fish by using a small metal spinner just ahead of the worm. This is more to attract the fish to the idea that something is moving rather than that they should strike the spinner, as the worm is not bright in color and the water is ordinarily murky where such fishing is done. It would be considered rather incongruous to use any bait attached to artificial lures such as "phantom minnows" or plugs.—[EDITORS.]

on a fly rod, a method which affords exciting sport. The fish run in schools and weigh anywhere from five to twenty-five pounds, averaging about fifteen. They are now schooling off Deer and Campobello Islands, both in Passamaquoddy Bay, within easy reach of St. Andrews. Dr. Travis suggests the use of flies imitating the shrimp in form and color, i. e., a gray body with a point of red in the head, including a pattern representing an unusually large shrimp. He further recommends trying a small spinner and a wobbler colored to resemble a small lobster.

HOW TO CARRY CONDENSED MILK

ONE of the most annoying problems the camper has to contend with is the manner in which the condensed milk can may be safely carried after it has once been opened. The usual method of putting little sticks in the holes which have been punched in the can to let the milk out is very unsatisfactory, as they are always coming out and when the camping kit is unpacked at the end of the trail, most of the things have a fine coating of milk on them. A simple way to overcome this trouble is shown in the accompanying cuts. Use a round nail to punch the holes in the can so they will be smooth and uniform and then whittle

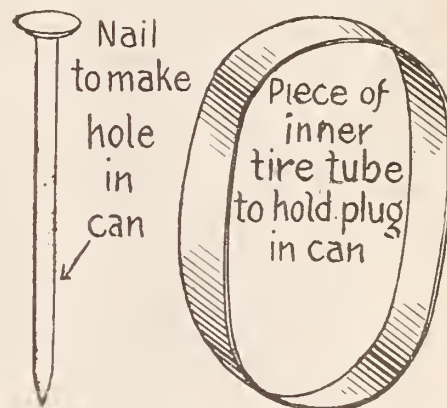


pegs of wood to fit into them snugly. From a worn-out inner tube of an automobile tire cut a strip about two inches wide. You will find that this piece of rubber will fit tightly over the can and will hold the pegs firmly in place, thus insuring a compact, safe and proficient way of keeping the milk where it belongs. POPE.

RUBBING FOR WORMS

I HAVE not tried Mr. Seufert's method for securing earth worms but down here in Dixie where the soil is sandy and often extremely dry a not unusual method and one generally followed with success is styled "Rubbing for Worms."

It is necessary to have previous knowledge of a locality the angle-worm frequents, as they are not universally distributed hereabouts. Then drive a rather thin piece of wood, three or more inches wide, well into the ground, allowing a foot or more to project—a stout shingle or roofing board serves well for the purpose. Then with a piece of heavier board, 3/4 in. to 1 in. thick, brought down to a rather thin edge on one side, proceed to "fiddle" or rub the



thin edge of the board across the top of the piece driven into the ground. The bow piece should be three or four feet long to permit of a good draw. When all goes well the other fellow with the bait-box will have a lively time gathering up the worms. This may sound fishy but there are strange things in the philosophy of cracker fishermen as well as in that of the ancient wisemen. OSCEOLA.

THE HANDY TROWEL

HAVE any of you readers ever considered what a handy little tool the garden trowel is?

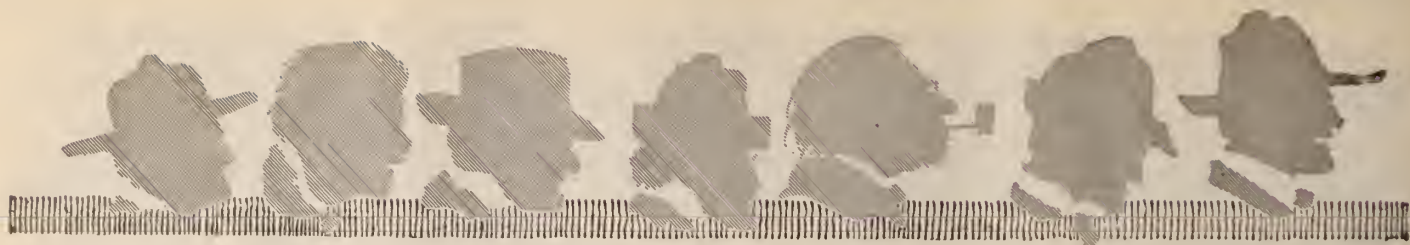
Perhaps on your last trip into the big sticks you felt as though you needed a small, light-weight, compact tool which would do for digging a trench around the tent to drain off the rain, or to dig those big, fat worms to get Mr. Bass, or perhaps to dig a hole for burying camp, refuse, etc., etc. It takes up very little room and only weighs about 6 ounces.

FRED BLAKE.

FLY FISHING FOR POLLACK

DR. THOMAS TRAVIS of the FOREST AND STREAM staff of writers has recently tried the experiment of fly fishing for pollack while on a visit to St. Andrews, New Brunswick.

He reports having demonstrated the fact that this kind of fish can be taken



FROM AN OLD SUBSCRIBER

To the Editor of FOREST AND STREAM:

I N looking over my game records, which go back to 1862, I thought some of my experiences might interest others who are gunners. What started the notion was that 50 years ago last October I shot my first duck; it was a gadwall. I was shooting a double muzzle loader, 20-gauge, given me by my father on my fourteenth birthday. In those days we shot anything from pheasants to cedar birds. I had a day off from the shop somehow, as days off were mighty scarce for me; we worked ten hours a day, six days in the week, and only four holidays in the year. I had a mixed bag and on coming down to Cooper's creek, now called river, in New Jersey, about six miles from Camden, I saw a couple of ducks, about 300 yards away in the water. I drew out the small shot and put in a couple of loads of No. 1, which I carried for hawks.

At this place the meadows are below tide water and they are protected by high banks with sluices to control the water. I slipped down back of the bank and sneaked along until opposite the birds. The ducks had seen or heard me as they had their heads up and had swam away from my side. They seemed pretty far away, but as they jumped I shot and to my great delight one dropped near the far shore. Here was a fix, there was no boat and the nearest bridge was one and a half miles away. The air and water were both cold—I could swim the creek, but was afraid of cramps so I got a dry cedar rail from a fence near, stripped and went to it. The water was not so bad, but the cold wind certainly made my teeth chatter. I got the duck, put on my clothes and put out for the woods near, where I made a fire and soon was in good shape again.

There were in those days considerable ducks, mostly in small flocks, stopping in the creeks and marshes. I would get a shot now and then, but could connect but seldom; generally at teal, while after railbirds. None seemed to know how to shoot or get shots at the big ducks and the few and far between chances I had, gave me very little practice. I could kill quail and woodcock alright, but ducks teased me. I did not understand them. It was six years later before I got on to them, until I went to Rehoboth Bay in Delaware in 1874. There was only one house on the beach, a board and battered house, kept by a man named Frederick. The wind used to come through the cracks and blow out the lights in the bedroom, also it was cold at times—but ducks! I never saw so many. The house was about 200 yards from what they called the lower lake,

LETTERS, QUESTIONS AND ANSWERS

consisting of about sixty acres, just back of the sand hills on the beach and the outlet seeped out through the sand to the sea. The birds came in there to feed in the fresh water, all kinds, from geese down. I was shooting a converted breach loader then and I soon got the hang of their flight and habits. We got geese, canvasback, redheads, mallards, broadbills, black duck, and the smaller duck. There was no Sunday shooting and we used to lie in the sand hills and watch them through the old man's spy glass. Sometimes there would be several thousand, blacking the water in places. You would have to go far to see such a sight these days. We sailed down the bay one day, four of us, to a reedy point, called Fox Island, to shoot geese. From our starting point all the way down there was an almost continuous string of birds getting up ahead, swinging off and passing us, to alight behind the boat. We expected to stay all night and had a basket of grub along. There was no cabin on the point and we had nothing but the sail to cover us. I guess we would have been pretty cold before morning. We ate up all the grub by dark so we did not stay all night as we expected to, but came back without any geese and only a few black ducks. I have often smiled at our expedition and crude outfit.

I have been a subscriber to FOREST AND STREAM these many years, more than I can remember, and I have had varied experiences with guns and ammunition. The first gun I shot was a flint lock musket that I found in my grandfather's garrett. I sneaked this out and killed a considerable number of black and reed birds. I was 13 years old and tall and strong, but the old gun was a good load for me and how she did kick! On my fourteenth birthday my father gave me a 20-gauge nuzzle loader. I certainly was a proud boy then. My next gun was a 10-gauge, made to order, 9½ lbs. in weight. Everyone was using heavy guns in those days. This gun was converted to a breechloader by Mortimer & Kirkwood, Boston. Then I got a 12-bore Colt, with hammers. Next, a repeater, 12-gauge; then a Remington 12, hammerless, ejector, which I still use.

The repeater I gave up as a shooting companion agreed with me that repeat-

ers give the game very little chance. If I cannot kill a bird with two shots it has a right to its life. I do not approve of repeaters except for military purposes or for dangerous game. Game is too scarce now. Give it a chance. Limiting the bag is also right as well as shortening the seasons. I have done things in the earlier days that I am ashamed of now. Once two of us shot 120 big bay snipe in a morning in New Jersey and another time at Rehoboth, Delaware, we got 51 ducks in four hours. Now I am well satisfied if we have birds to eat during the trip and four or five pairs to bring home, or to give to some of the people in the locality where we are shooting. I find that they are glad to get them, and it makes kindly feeling as very few of them are fitted to shoot for themselves, are poor shots or are busy on their farms. Field sports have done much for me. I am 71 years old, shoot without glasses, handle my own boat and decoys, when alone, and do my share of the work if I am with a companion. I have been shooting in Virginia for the last 25 years for wildfowl and expect to go down there this season and give the birds another go.

BRANT, Penn.

A CANOE TRIP

To the Editor of FOREST AND STREAM:

I WOULD like to call your attention to a canoe trip which few people ever make and which is especially available to persons residing in the eastern part of Connecticut or Massachusetts or in any part of Rhode Island.

I refer to the trip down the Saco; beginning the trip at Conway Center, N. H., and ending at Saco, Me. It is a very beautiful trip and easily made. One, moreover, which a man can take with his wife if he wishes. Plenty of fishing. No long portages. If any of your readers are interested I will send you a description of the country and an estimate of the distance and tell you where the falls are encountered.

ERNEST A. BROWN, N.H.

DUCKS AT HOOK LAKE

To the Editor of FOREST AND STREAM:

FOUR o'clock one morning found us at a little lake, which is about twelve and a half miles from Madison, Wis, and which is just the shape of a fish hook; that is why it is called Hook Lake.

It is one of the finest little lakes in the country for wild fowl, as it contains a great deal of grass and bull rushes, also many patches of lily pads.

Of late years the grass seems to be getting less and less; I think it is on account of too much water which keeps it from growing to any great extent.

In the center of the lake there are about nine acres of cranberry bushes, which do not bear cranberries on account of low water.

Here and there are some patches of grass among the bushes. One can jump mallards in these patches, especially in the early part of the season, as that is where the young mallards like to hide and it is where we like to see them light, for we can row up to the edge of the cranberries and flush them. When they get out they go right straight up, and a good many hunters get fooled by them, for they will shoot under their bird eight out of ten times.

When the water is low one can wade all through the cranberry bushes without much trouble.

About eighteen years ago this lake went dry and willows started to grow. This made an excellent place for wood ducks, but now on account of so much water the last five years it has killed the willows, and one does not see any more wood ducks.

I have one of the best dogs in the country and he is a great retriever. He is a cross between a spaniel and a setter, and can be worked very hard all day. He weighs about sixty-five pounds, and some say that he is too heavy, but I have seen smaller dogs work and notice that they get tired out quickly.

In the early part of the season one can go in the marsh and make all the noise he wants to, and even shoot, but the young mallards will not get out, but let the dog get in there and they will move.

I had an experience a few years ago on this strip of marsh, which is about 60 yards wide and about 200 yards long. I had put old Sport out in this strip, and it was not over four minutes before a young mallard came fluttering out in a little open space. I knocked it down and the dog brought it to me. When I looked it over I noticed that its body was well feathered out, but the wings were not feathered enough to fly. I rowed down to the other end to try again, but on my way down I saw that some fellows in a boat had pushed in through the marsh, but I thought I would put the dog off anyway. When he saw me put the dog off he stopped and sure enough he hadn't been in there long before three young mallards got up. I got one with each barrel and the other one went almost over this fellow and he shot three times, but the bird was still going the last time I saw it. Not long afterwards I ran across this same fellow and he was trying the same thing with his dog.

About noon when most of the hunters have gone home, one usually will find a mallard or two dropping in, and sure enough about eleven-thirty I discovered a mallard coming in, so I said to my partner, whom I had met in the marsh: "Here is a good chance for me to increase my bag limit," so I rowed over to where I had seen it light and it got up within 25 yards of me. I downed it with the first shot, and then up got another which I killed with the other barrel. This one fell in the cranberries, so I let old Sport get it while I picked up the first one

which had fallen right on the edge. I went back to where my partner was, but we hadn't been there over ten minutes before we saw six more mallards drop in. They lit in a patch of open water near a big bunch of grass. He said: "Go over and try them." I wanted him to come too, but he said: "Oh, we can't get near them." So I decided to go over and try them. While I was sneaking back of the patch of grass they swam up to the edge of it and when I got to the opposite side I looked up, expecting to see them out in the open, but could not see them at all, so I kept on pushing around the grass. There was a good wind blowing and in my favor, so they did not hear me moving around, and just as the point of my boat went around the edge of the grass, up they sprang with loud quacks, in fine range, and sure enough one fell at the report of each barrel. That added two more nice mallards to my bunch.

We waited around there for about a half hour, but didn't see any more drop in. Finally my partner said he was going to go around and see if he could jump any more. Sure enough he hadn't been gone very long before I heard his gun talking. He had gotten into a flock of eight killed three of them, and on the



Sport and the day's bag

way back a blue wing teal flew over him, but he stopped it before it got very far. After that we picked up one pintail and a black mallard and a gray mallard, which made fourteen nice birds. A little later we pulled up our boats and put them on the cart and drove up to the farm house, which is about half a mile from the lake, put the boats in the corn crib and were on our way home at dark.

FRANK LAWRENCE, Wis.

WILD OTTER IN NEW YORK STATE

To the Editor of FOREST AND STREAM:

STRANGE as it may seem two otter were captured alive in the town of Lewis, next town north of here, recently.

One of the otter was a large one, measuring over four feet from tip to tip and was caught by two men and a woman while attempting to go through a cornfield in the Stowerville section. An empty flour barrel was put down and the otter crawled into it.

The other otter was a kitten and was caught in the grass on Hale Brook Park,

about five miles west of Stowerville. A man with mittens on picked the little fellow up easily. These two otters, a male and a female, are in possession of Perry A. Cole, proprietor of Pleasant Valley Fur Farm, who intends to breed them.

GEO L. BROWN, Elizabethtown, N. Y.

A DAY WITH COAST-TROUT

To the Editor of FOREST AND STREAM:

UNLIKE the ancient philosopher who declared: "I am an old man; I have had many troubles—and the most of them never happened," I have had my fishing-troubles, and all of them happened.

But along with much "Fisherman's luck" I have had some experiences which I have framed and hung in the gallery of memory; part of which I will now give you.

Coastal fishing is fine when it is fine. Two years ago this November I spent a day along Chocolate Bayou, about thirty miles below Galveston. The day was very chilly; clouds came and passed. A "Norther" was coming and with it myriads of ducks. As I was bent on fishing only, I only slipped half a dozen shells in with my trusty double-barrel, thinking that if the ducks really attacked me I would have some defence! That's the time the air was, and always is full of ducks!

Well, as luck had it, I got on the wrong side of the water, the wind making it exceedingly difficult to cast. Then came a launch with half a dozen fishermen aboard. They tied up opposite and threw into the shoals. Every man pulled out small mullet, sheep-head, catfish, etc., about as fast as he could bait. I set to sizing up matters; if those small fish were so plentiful in that shallow water, they must have been chased there by larger ones. I wished those fellows would get out and give me a chance! My wish was soon gratified; they left disgusted, little thinking that there were "Acres of Diamonds" at their feet.

The Bayou was 16 feet deep and 250 wide. I had no boat and the water was icy! Well, a true fisherman never hesitates. With rod and bait and lunch strapped to back, I was soon across; found an old boat; anchored it out as far as I could wade, and threw my line. The shrimp must have been extra good, as the hook no sooner disappeared when, swish! Ah, a 1¼-lb. beauty—yes, a real speckled trout. Another shrimp, another throw, and swish again!

Well, I kept throwing and swishing for over two hours; simply dropping the fine fellows into the boat before me; my lunch on the bank less than 20 feet away but who could get hungry under such circumstances?

My companions growled at me for swimming across; and when they saw the white bellies flashing steadily over my head, they put in the time growling because I would not row over and set them across!

I finally quit and when home that night with my fish, counted and weighed, it was heralded that I had made the finest catch of trout ever taken in one

day in that region. Around 86 pounds.

The trip taught me two things: First, get out beyond the little tribes; that's where the big ones wait for prey. Second, do not anchor your boat to any fixed stake or stump that's been in the stream any length of time. Have a stone or some other heavy weight to throw out from each end of your boat. Trout and bass are shy; the least jar of any familiar thing to them will send them scurrying away.

The above day's fishing did not end in the proverbial fashion; I caught all "the big ones," and none got away. Hence I could not lie after the manner of fisherman!

HENRY S. ALKIRE,
With U. S. Troops, Mexican Border.

A TRUE OCCURRENCE

AFTER reading Mr. Ben C. Robinson's "Angling for the Gamey Bass" in the July FOREST AND STREAM, I am reminded of something that might interest others who are fond of bass fishing and know their peculiarities.

With some friends I was strolling along a pond where we knew there were bass and seeing some lying quietly together near the bank, we watched them for a time then decided to return home. The writer thoughtlessly threw a partly used cigar into the water. It no sooner struck the water than what appeared to be a two-pounder took it. The sad part comes now. Next day a dead bass was found floating in the pond and, upon being opened, the cigar butt was found which had caused its sad death.

H. N. HOMESHER, Penn.

BENNETT'S LONG GUN

To the Editor of FOREST AND STREAM:

YOU ask me to tell the readers of FOREST AND STREAM something about the long gun shown in the accompanying picture. There is very little of general interest I can tell. The gun was made in London, England, in 1799, as told by a brass plate on the stock. The barrel is five feet seven and one-half inches long, and the gun as it stands is seven feet in length. The gun I have in my left hand is an ordinary 32-inch barrel, to show the contrast in the length of the two pieces.

The old gun was brought to this country soon after it was made and sold to my grandfather, John Bennett, who lived in Maryland, twenty-three miles from Baltimore, and the same from Washington. Grandfather had it on the farm during the War of 1812, and to keep it from being confiscated by the British hid it in the woods, where he also hid his horses. When I was living on the old homestead with my father I remember his telling me about grandfather seeing a flock of mallard ducks drop down into the river one day, and of taking the long gun down after them. Crawling up to the bank he saw a bunch of eight ducks well bunched and firing at them, killed seven dead and wounded the eighth. I have often heard my father say it would kill game at 130 yards. I do know it will kill at a long distance. The last time the writer ever shot it at game was

at Glencoe, Minnesota, many years ago, when he killed and got seven ducks at one shot.

I have passed the gun down to my son, A. A. Bennett, of Renville, Minnesota. Of course it was originally a flint-lock, but after coming to Minnesota in 1856 my father had it changed to a percussion lock, and used it to shoot squirrels and pheasants in the woods along Root River. The old gun, before being brought west, was the cause of the death of many a canvasback duck on the Chesapeake Bay.

The following incident may be of interest: In the spring of 1879, while an



The long gun compared with a fowling piece of thirty-two-inch barrels

employée of the Government Printing Office at Washington, I decided to make a trip to the old homestead, just to see how it looked, and started out not knowing just how to get there. I took a B. & O. train for a point I knew could not be far from where I wished to go, and then went by stage a few miles. Coming to a cross-road's store I went in and asked the man in charge, who was just about my own age, if he knew of a family of Bennett's who used to live in that section. He said he did not. Then, after a moment's thought, he said: "Yes, I do, too. I remember now there was such a family, and that the old man

had a very long gun, and my father used to say he had to go upstairs to load it." I said: "Mister, I have that gun." He replied, "Then you are on the right track, it is about two and a half miles from here." I walked down to the place indicated and found the old homestead, and the old gun had helped me to find it.

C. A. BENNETT, Minn.

A MISSOURI GOOSE HUNT

To the Editor of FOREST AND STREAM:

MANY are the stories I have read in FOREST & STREAM that delight the heart of the true hunter, and bring back pleasant memories of the past, which may never return.

Nine years ago we built a cabin on the Fabius River, and as we frequently had to cross it in our pursuit of game, we proceeded to build a boat, making the joints tight with pitch and white lead. We soon had one which would stand all the high waters.

But I started to tell of a goose hunt to the big lakes. You must understand, at the present, a goose is something to be proud of in the northeast part of Missouri; although in the past, we had no difficulty in bagging all we cared for. It was early in October and snowing to beat the band, when Doc, Ben, Clem and I persuaded ourselves to wander out. We awoke early in the morning before the sun was up, filled our pockets with food and started for the big lakes, 7 miles distant. Ben had about three feet of sausage, Doc the bread, Clem and I brought the trimmings, each carrying two live decoys. With what we had stowed away at the cabin and with what we could kill, we figured we were good for two days at least.

A cold structure, this cabin was; built by ourselves and lined with paper, but as we had a good stove, it kept us warm as long as we carried in enough wood. We rustled this with an ax which was always there. Never yet have we gone hungry, although it was late many a night when the last one brought in the meat for the next day. Sometimes it looked as though breakfast was simply going to be a matter of washing our faces.

We had been there two days and were out of meat. It was early in the morning, and the wind was blowing a hurricane of snow, making it unfit for anyone to venture out. But as this had come up suddenly and there had been geese flying the day before, we decided that it was "Root hog or die," so we got out our guns and sallied forth, trying to pretend that each one was just aching to get into the storm. We looked over every lake that was within walking distance, but nobody fired a shot, there being nothing to shoot, not even a rabbit.

Finally we got to the big lakes, and a hunter in our position only can imagine our feelings at seeing the lakes covered with geese and duck. Three drakes and five hens comprised our decoys, and we proceeded to stake a few of them. Ben had just started with two drakes, when six old greenheads arose within shooting distance. We just dropped the decoys and we all stood with our mouths

open. They had been in the tall grass, and simply gave us the laugh and winged their way to other feeding grounds. Next, we separated, Doc and I following the river. We tramped quite a ways to what we call the Cross-Road ponds, and got back about dusk, with a total of eight ducks, thinking we had saved the day. Brushing the snow off a log, we sat down for awhile and tried to locate Ben and Clem. We could see a bunch of geese on the opposite bank, but it would have taken a "Big Bertha" to have ever reached them. Not being able to locate our companions we went to the cabin and stirred up the fire, wondering what was keeping them. After a while we wandered back to the lakes, and just as the sun was getting low, saw both of them flat on the ground, making a crawl for the geese.

We watched them get closer and closer until we wondered if it would be possible for them to make the stalk. I could see the bunch plainly, and soon the old sentinel on the watch says, "Honk-Honk." But the old scouts had their eye on them and in a second were on their feet. We could see the smoke from their guns before the sound reached us and, much to our satisfaction, saw them bring down the seventh goose, lay down their guns and shake hands like two long lost brothers. While this performance was going on, one old boy that must have been playing possum, raised his wings and flew. Then the fun started. Both grabbed their guns and shot, but Mr. Goose just went all the higher and said good-bye. Then came the job of getting the six geese. Three dead and three wounded. Our boat leaked like a sieve. I didn't take my gun, for fear the boat would sink, but I had a gallon bucket to bail with.

I have read many a story of a moonlight night on the water, but this presented a scene to me which I shall never forget. It is hard to describe the feelings of a sportsman, in a leaky boat, with a gallon bucket, looking for six geese on a lake of this size. The moon was full and seemed to throw a direct ray on the boat. I finally succeeded in landing five of them and, dipping water from the boat, paddled to shore. The trip lasted two days more and then we broke camp.

Such trips as these will never be forgotten by the true sportsman. We can sit by the fire, long after these trips are impossible, and bring back memories of the great wilderness, which is fast becoming utilized, driving the larger game into a smaller space each year, until finally these trips will be just memories.

J. L. MUDD, Missouri.

A WOODLAND TRAGEDY

To the Editor of FOREST AND STREAM:

THE deer family is usually considered to be mild and inoffensive. They have such a meek appearance, their actions are so cautious and timid that one is readily led to believe that they are perfectly harmless. This, however, is not the case, as those who have had tame deer under their care can testify; they not only fight savagely among themselves but have been known to kill their mates,

even their own young, and in some instances their keepers. Such incidents have been noted with animals kept in large enclosures, but there is ample proof midst the deep recesses of the forest that all the deer tribe fight savagely among themselves. There, antlered monarchs meet and bloody encounters occur, unseen, and unrecorded, save for a skull or skeleton, which is soon covered from view by the luxuriant shrubbery and leaves. The battles often prove fatal to one of the contestants and in some rare instances to both.

During the mating season, all stags become murderous brutes, hardly partaking of any food, but rushing about just spoiling for a fight, occasionally meeting a rival stag which, if evenly matched with the challenger, gives battle at once. A fight ensues which few sportsmen have had the privilege to witness. The only record of these duels on which we can rely is what is known among hunters as the "Deadlock."

There are few deer that possess the rare construction of antlers, which, when

something interesting in it. Could you tell me where I can procure mossbunker or menhaden bait? Do you know of anyone near New York who sells such bait?

G. YOST, Connecticut.

We know of no one who deals in menhaden except those who supply the deep water fishermen who grind them for chum when in quest of the bluefish and bonito. You could doubtless make some arrangement with some market stallman in your local city if you give him your order in advance. At this season of the year pound fisherman get menhaden at nearly every lift of the nets and no doubt would be glad to save some for your dealer.—[EDITORS.]

LONG AND SHORT BARRELS AGAIN

To the Editor of FOREST AND STREAM:

I NOTED the article in the June number by W. A. B. on short barrel guns and also the article regarding the same,



Bronze miniature modeled by R. H. Rockwell, Brooklyn Institute of Arts and Sciences

crashed together in combat become interlocked, and when such animals meet, a real tragedy develops; there is no survival of the fittest, but both die a miserable death. At times horns are found, worn deeply into each other, thus showing the creatures parried about for a considerable time before they succumbed. Being held together in such a manner, they can do no further fighting, but the struggle is continuous until starvation weakens one or the other.

The stronger one may remain on his feet for a while, but after he has nibbled what food or foliage there is within his limited reach, he, at last must lie down and meet the same fate as his adversary.

ROBERT H. ROCKWELL, New York.

WHERE TO GET MENHADEN BAIT

To the Editor of FOREST AND STREAM:

I AM a subscriber to your valuable magazine and eagerly await its appearance every month, as I always find

on page 480 of the September issue. W. A. B. is in accord with my own views, obtained from chronograph tests in a complete ballistic department. In a test several years ago with 28, 30 and 32-inch barrels, all from a well known maker, and all bored on the same plan (full choke) with a cartridge containing 3 drams of smokeless powder and 1¼ oz. of chilled shot, I did not find any difference in the results obtained with the 28 or 30-inch barrels, ten shots from each. With the 32-inch barrel the chronograph gave a slightly reduced velocity. I have not the figures of that test at my command. In the near future I will be able to give you complete figures of a test I will make, with 28 and 30-inch barrels, both guns from the same maker and bored alike. I will make the test with the 3, 1¼, 7½ load, also with 3½, 1½, 7-chilled shot, same powder, and give you the full data.

F. I. FENN, Ill.

(SEVERAL LETTERS ARE HELD OVER)

FISHING AT MONTAUK

WHERE, WHEN AND HOW TO CAST FOR BLUE FISH AND STRIPED BASS AT THE END OF LONG ISLAND

By Dr. H. H. THORP



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HAVING seen several inquiries about fishing at Montauk I thought some FOREST AND STREAM readers might like to hear of conditions there. Most articles on any particular place are not definite as to place or exact enough as to conditions to enable a stranger to go there

with any chance of getting fish. Here and now I propose to remedy that as to Montauk, so your readers who know how to cast can get blue fish and bass there.

The writer thought he knew Montauk thoroughly by having fished there by trolling and still fishing from power boats off the Point for three summers. At times that kind of fishing was very good, beginning the third week in May with the pollack and ending in October with the run of large bluefish. Of course there was little sport in hauling in fish from a moving power boat with a hand line, but once Captain L. and I landed and sold to the dealers at Fort Pond Bay seventeen hundred and sixty pounds of pollack, this being for some time the record for two men in one day. As to leaping tuna (which never leap when hooked) or horse mackerel they were a nuisance. They ran from twenty to forty pounds and there being no market for them eight years ago, we turned them loose. Captain L. called them "Billy-goats" and hated them because when a big one hit one of our trolling jigs it was good-bye to that jig and line.

Of bluefish we caught a fair number at times, getting most of our fish between sunrise and nine A. M., that being the time bluefish feed on the grounds around Montauk. Occasionally by running as close to the rocky shore line as we dared and throwing a jig on the end of a trolling line towards the rocks we would catch a rather large striped bass. That was what started me fishing for striped bass at Montauk.

Having caught these fish still fishing and trolling at certain places, I turned up at Montauk with what in my ignorance I thought was the proper outfit, namely a light, short butt rod and plenty of fine shedder crabs and white worms. From the Inn at Fort Pond Bay where I stopped we drove out to the Point and started fishing at a cove called Stony Brook. There was a heavy surf on, which bothered me a lot when casting and trying to keep the bait out when cast and I didn't get one strike.

PRESENTLY a car stopped near where I was fishing and two men, G and J, who also were staying at the Inn and whose catch of striped bass and bluefish I had wondered at the day

before, came and after asking if I had caught anything remarked: "Think it will be right about one o'clock" and departed. About one they returned and I got my first surprise. Instead of fishing in the nice deep cove where I had been feeding expensive crabs and worms to black fish and other bottom vermin J waded out on the left hand point as far as he could go and not drown and proceeded to "shoot them out" using a spring butt serf casting rod and block tin jig and reeling the moment the jig hit the water. Inside of one hour I saw him hook and helped him land nine bluefish averaging seven pounds apiece. Then that other expert G, who had been quietly seated, smoking a cigar, remarked: "I think I will get a bass" and proceeded to amble out to the extreme tip of the right hand point and then to hook and land a striped bass of about fifteen pounds. Then they gathered up their fish and motored off and I sat on a rock and "said things" to the "Cat." The latter I ought to explain being a Chesapeake Bay dog whose real business in life is to retrieve ducks but who thinks he has to accompany me on all fishing trips to help land fish, and does. Realizing I had struck something new in fishing, the next morning I asked G and J to show me and taking pity on my ignorance they, like good sportsmen, took me along and showed me how to catch bass at Montauk.

Later, through the kindness of a friend, I became possessed of a proper casting outfit and spent odd moments all one summer practising casting on the beach at Southampton. I never caught anything, much to the amusement of my fellow townspeople who could not understand why I persistently cast where they knew there were no fish. Finally the day came when I could get 150 feet measured on a lawn. Then I went to Montauk and at a place called Morgan's, caught one fish weighing 26½ pounds which, beautifully mounted by Mulgatroid, I can see as I write, one fish of 19 pounds and one of 12 pounds.

LAST summer I could only get three trips of a day each and did not land a fish, although I hooked and played two, one large bass and a good bluefish. The latter amazed me by jumping out of the water like a small tarpon. This I learned they do if hooked in shallow water. I had caught hundreds trolling and chumming, but I never saw a bluefish do this before. At last the day came when I got even with old Mr. Striped Bass, but the middle of October came before I could get away. Then one cloudy day, on the tail end of a northeaster, the "Cat" and I started in my auto for Bass Camp, a small shack we have on the Point, driving the forty miles over the new road recently built.

(CONTINUED ON PAGE 575)

Shave a New Way

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Facts such as these convince the home shaver that harsh, slow ways are no longer necessary. Shavaid, the new, soothing beard-softener, replaces annoying and harmful operations, saves time, gives new delight. To learn its merit, send for a Free Trial Tube.

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Shavaid saves hot water applications. It saves rubbing the lather in. It saves waiting for the beard to soften. It saves doctoring an irritated skin with lotion afterwards. It means a quick shave, an easy shave, a luxury shave. It avoids discomforts in a close shave. It does instantly what old shaving methods never could do at all.

If all this is so, you want it. You will never shave without it. No man abuses his face willingly.

Old vs New

Simply coat the dry beard thinly with Shavaid, before applying lather. Note the cooling, soothing effect.

Note how the lather remains moist and creamy.

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<i>Replaces after-lotions</i> —Shavaid is a cooling, soothing balm.

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HOW TO FIND THE NORTH

SOME WAYS OF WORKING OUT YOUR BEARINGS
WHEN YOU ARE LOST IN THE TRACKLESS WILDS

By J. W. STOLLE



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GR**EAT** deal has been written, and much more has been said concerning the subject of finding that intangible, elusive something called North, without a compass, when you have lost your way in the big woods. The theory that moss always grows thickest on the north side of a tree is false and sometimes seriously misleading. The Indians of the north woods used to note the direction of blown down trees—not one, but several at a time—and knowing the direction from which prevailing gales blew, they could easily find their way. But in order to utilize this knowledge the traveler must know from what direction the strong gales usually blow in that particular region.

Then there is the method of finding South by pointing the hour hand of your watch toward the sun. Half way between the hour hand and twelve o'clock on your watch is south, whether the observation is taken in the forenoon or afternoon. Provided, however, your watch is going and at least approximately on time. This method is very reliable and transforms your watch into a solar compass *when you can see the sun*. But when the snow is falling or it's murky overhead—well, that's different.

It is like looking for a needle in a haystack—this trying to find your way once you've lost it, unless you have a compass or know the trick. Before I finish this article I am going to convince the reader that, no matter how badly he is lost, no matter what kind of a forest he is in, no matter what the weather is so long as it is daylight—there is no cause for alarm or insanity. *Provided he keeps cool.*

It seems unbelievable that full grown men, more or less accustomed to the woods, will sometimes become so hopelessly lost that they will not believe that a river flows downstream, even though their own eyes appraise them of the fact. Lost men have been known to throw sticks and chips into a river to ascertain which direction the current was flowing. I once came upon a log cabin on a little spruce covered knoll in a Maine cedar swamp, and, though I had left that very same cabin, with which I was quite familiar, barely twenty minutes before, I did not recognize it until I opened the door and looked in! I had been traveling willy nilly through the woods, looking for deer, and thought I was at least a mile from that cabin. A cedar swamp on a cloudy day is *bad*, unless as I said, you have a compass or know the trick.

But it is not always so bad as you might think it to be when you first consider it.

ONE of the surest signs that you are really and truly lost is when your compass points—south! Don't be a fool. If your compass pointed north when you left camp, it still points north. Depend upon that. Even though you think you know better—you don't. Of course, if you are in an iron country your compass might vary considerably. But the chances are that you are not in an iron country, and even if you are, you can check your compass, as will be shown later.

On a memorable occasion I was lost for eight hours in a fiat cedar swamp country in northern Maine. I was then a tenderfoot and did not know when I started out from camp that morning that I was walking deep into the bosom of the unknown. I had taken the wrong trail leading off from the tote-road, to make a short cut to the clearings on Trout Brook, near Ashland. I had a compass and for the first mile or so the trail led in the right direction—southeast. But as I traveled on I was more and more dismayed to find that the trail persisted in swinging to the right, almost due west. At last I became disgusted with the trail and swung off on a south-easterly course through a dense cedar swamp, knowing full well that the clearings could not be more than three miles distant at the most. Presently I struck a small brook. By this time I was so badly lost that I could not be sure whether it was the head of Horse Brook, Trout Brook, or Shield's Brook, all of which, according to my map, headed somewhere in that region within a radius of five miles. I decided upon one point, however, I would follow that brook to its mouth, be it on the Machias, Aroostook or Kennebec River.

I began to feel the terror of the unknown and hurried, tearing my clothes in the chaotic tangle of blowdowns, old tops, alders and cedar roots which, with the rank ground moss hid deep hollows washed out by the creek in freshet times. On and on I hurried, ignoring direction, determined to follow that brook to its mouth. There was about two inches of snow upon the ground and the ice on the still water in the occasional beaver dams was about three inches thick. I could have retraced my steps to the known ground of the tote road, but a man never retraces his steps when lost. Why should he, when his objective is always just ahead?

I carried a hunting knife and a rifle but no grub. Once, long after noon I treed a partridge which would have made a good meal, but I had no time to waste in shooting partridges. My one idea was to get out of that menacing, mocking wilderness before dark. I crossed and recrossed that brook a hundred times, always picking the side that afforded the greatest freedom to a man in an immense hurry. At every step I strained my eyes

(CONTINUED ON PAGE 552)

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JAMES ALEXANDER HENSHALL

(CONTINUED FROM PAGE 531)



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And let us do your head mounting, rug, robe, coat, and glove making. You never lose anything and generally gain by dealing direct with headquarters.

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WE CHARGE NO COMMISSION

For 47 years square dealing has built our reputation. Ask the oldest trapper. He'll tell you.

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Western Shipments From Frisco.

Do away with coal and wood

ington. A few years ago we offered five hundred dollars for a pair of passenger pigeons, but without avail."

Poor Martha! For many years preceding her death she sat in her cage, sad, solitary and alone, amidst the many-hued birds of the aviary; listening to their trills and cadences, or perhaps discordant notes; reflecting possibly on the past glory of her race, or like Rachel mourning for her children because they were not.

THE dodo, a very large and ungainly bird, whose habitat was restricted to a solitary island in the Indian Ocean, was exterminated as early as 1700. Only imperfect skeletons of this interesting bird remain, except a foot that is preserved in the British Museum.

The Great Auk, another very large and unwieldy bird, that at one time was abundant on the shores of Greenland and the islands in the Gulf of St. Lawrence, became extinct in 1844. A mounted specimen was sold in 1905 for two thousand dollars. There are a few imperfect skeletons in the museums.

During my first visit to Florida, in 1878, I saw a number of flocks of parakeets, but not a single one was observed during subsequent visits to that state a few years later. Egrets and other herons, pink curlews and flamingos were abundant during my first visit, and Indians were selling egret plumes for ten cents each, and partial skins of roseate spoonbills and flamingos were offered for a pittance. Thirty years ago the big black woodpecker with a scarlet crest, and as large as a bantam chicken, was common in Kentucky; and its congener, the ivory-billed woodpecker, fully as large, but with a white bill, was occasionally seen. Now the pileated species is very scarce, while the ivory-bill is probably extinct. I purchased the skin of one from a Florida plume-hunter in 1886 for ten dollars; it is now in the museum of the Cincinnati Society of Natural History.

That the dodo and great auk should be exterminated with the appearance of the human, or inhuman, specimens, is no cause of wonder, as both were very large birds, incapable of flight, having only small rudimentary wings, and could be knocked over with clubs. The disappearance or extermination of the passenger pigeon, the parakeets and the big black woodpeckers is not what might have been expected, for these birds were capable of swift and extended flights. Their disappearance is to be attributed solely to the greed, wantonness and avariciousness of the market hunter and the plume hunter.

To divert our minds for a moment from this sad state of affairs, it might be said that there is a remote possibility that the dodo is not extinct, but extant, in Ireland, if one may credit a current story which goes as follows:

An English landlord of a large game preserve in Ireland sent a prospective purchaser to view the premises under

the guidance of the Irish game-keeper, who had received a previous tip from the owner. Showing the gentleman over the preserve, Pat rather overstepped the bounds of credulity in describing the abundance of game. The gentleman at length began to suspect, and finally became convinced, that Pat was drawing a pretty long bow, and said, suddenly:

"Well, Pat, I am satisfied from your account that there should be untold numbers of hares, partridges and snipe on the preserve, but what about the dodo."

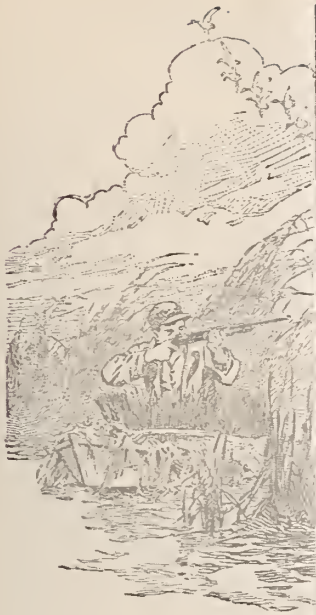
"Dodo, dodo," muttered Pat, quite puzzled. "Well, sor," scratching his head, "is it dodos, sor? Well, there's an occasional wan after a har-r-d fr-r-ost!"

AFTER skating on the Ohio River at its lowest stage it was but two or three months later when I saw it at a flood stage of more than sixty feet. It was truly a novel and interesting sight. The former peaceful stream was now a raging torrent on a furious rampage. It had risen far above its banks and extended for miles to the hills on either side. The levee or public landing was completely overflowed, the steamboats being moored along Front street or wherever they could find a harbor. Rat Row, Sausage Row and other unsavory streets were inundated, the water reaching the second or third stories of the cheap restaurants and disreputable groggeries, which were undergoing their annual house cleaning.

The turbid river rushed along at wonderful speed. Its channel was filled with all sorts of flotsam and jetsam. Up-rooted trees were whirled along and saw-logs, hay-stacks, chicken coops, hog pens, cordwood and cabin roofs and what not went madly rushing down-stream. People along the banks, with ropes and large hooks, were dragging out drift wood and other objects of any value. It was a busy scene. Steamboats that ventured out did so at their peril, and with the almost certain result of broken paddle-wheels, which would soon have been floating along with other debris and derelicts.

The water backed up Mill Creek, flooding that part of the city in the creek bottoms. Visiting that section of the town on the next Sunday, the river still rising, I saw people being rescued from their homes through the windows and from the roof by men in skiffs. It seems that this was an annual occurrence, and that when the water subsided the people would again return to their homes to repeat the exodus the following winter, when they would again be ruthlessly evicted without due process of law. But it was home, sweet home.

I was once in Naples at the subsidence of a very active eruption from Mount Vesuvius. As the molten streams of lava, flowing down the sides of the mountain, became cool, I saw the former occupants of the cots that had been wrecked or burnt, busily engaged in building new ones or repairing old ones; and though the catastrophe might occur again and again they would again



No birds get through *his* shot patterns

THE successful sportsman knows that his bag depends almost as much upon the shot pattern, or evenness with which the shot spreads out and covers the game, as it does upon his gun handling.

The secret of uniform game-getting patterns is in the control of the gas blast from the exploding powder. This in turn depends upon the *wadding* in the shell.

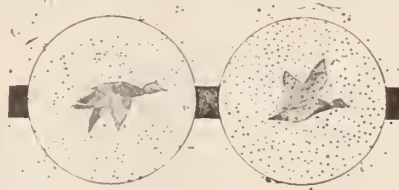
The Winchester gas control system

The Winchester System of Wadding and Loading is the result of repeated experiments to determine the most effective control of the gas blast.

The base wads of Winchester shells are constructed to give what is known as progressive combustion to the powder charge. The ignition spreads to the sides, in all directions as well as forward.

Under the heat and pressure of this rapid combustion the tough, springy driving wad expands and fills the bore snugly completely sealing in the gas behind. In being driven

through the bore this wad offers just enough resistance to the gas blast to insure complete combustion of every grain of powder, so that the full energy of the whole powder charge is developed at the muzzle. Thus none of the shot charge leaves the gun until



A patchy pattern often means a miss, many times a cripple, and sometimes badly mutilated game.

The hard-hitting Winchester pattern is evenly distributed. No game gets through, and no game is mutilated.

it is being driven by the maximum energy and velocity possible from the load.

At the muzzle the expanded snug-fitting driving wad is slightly checked by the muzzle choke or constriction, while the shot cluster travels on unbroken by gas blast or wadding, making the hard-hitting uniform pattern for which Winchester shells are world-famous.

Uniform shells. From primer to crimp, Winchester shells are so balanced in construction as to insure the maximum pattern possible from any load. The broad fish-tail flash from the primer gives even and thorough ignition; the driving wads completely seal in the gas behind the shot; the stiffness of the crimp or turnover at the shell head is varied exactly according to different loads, great care being taken never to stiffen it to such a degree that it offers undue resistance to the powder explosion.

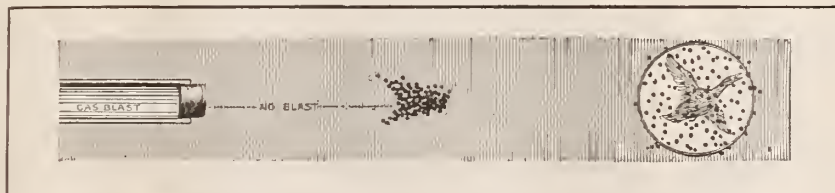
In addition Winchester shells are, of course, thoroughly waterproof, insuring true shooting in damp saturating salt air or drenching rains, and a special lubrication of the paper fibre prevents brittleness and splitting in dry weather.

Clean hits and more of them

To insure more hits and cleaner hits in the field or at the traps be sure your shells are Winchester Leader and Repeater for Smokeless; Nublack and New Rival for black powder. Leading hardware and sporting goods dealers in every community carry Winchester Arms and Ammunition. They will be glad to assist you in determining the load best suited to your purpose. Upon request, we will send you, free of charge,

our interesting booklet on Winchester Shotguns and Loaded Shells.

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The Winchester system of wadding. The wadding expands evenly, sealing in the gas blast all the way to the muzzle, where the wadding is checked by the "choke" or constriction. The shot cluster travels on ahead unbroken. Actual test target 320 pellets out of 431 or 74 percent of the shot charge (1 1/4 oz. of 7/8 chilled) inside a 30-inch circle at 40 yards.

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There is something about the trust reposed in his tackle by an angler which has always inspired us to utmost vigilance for his protection. That is one of the reasons why Abbey & Imbrie tackle, over 99 years on the market, has given uniform satisfaction under all tests.

Faulty service from Abbey & Imbrie tackle would mean more to us than a loss of sales prestige—it would imply a lowering of our conception of angling ideals, a thought as intolerable to the veteran craftsmen who make our tackle as to the men who sell it.

So the angler who buys Abbey & Imbrie tackle gets something more than supreme quality—he invests also in protection, born of our respect for his confidence. Sentiment, perhaps, but translated into terms of quality and reliability which the angler can well appreciate.

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return, for it was home, the only home they knew.

I once saw a horse led blindfolded from a burning stable; and as soon as the bandage was removed from his eyes he broke from his tether and rushed back into the blazing building, without heed to the flames which enveloped him. It was his home; his city of refuge; he knew no other. The love of home is firmly rooted in the breast or brain of every living creature of the animal creation, and to a certain extent this is true of plants concerning their environment.

THE NORTHERN PIKE OF LEWEY LAKE

(CONTINUED FROM PAGE 535)

The old McCormack hotel, then operated by Osgood, no doubt is still in existence, and there may be other hotels as well. A letter addressed there no doubt would bring definite information on this point. The fishing is equally good at any time, from the going out of the ice until the onset of winter. Lewey lake is reached by railroad to North Creek, thence by stage to Indian Lake village at the foot of Indian lake; from here launch, private conveyance or rowboat will complete the journey. Lewey lake also is accessible by railroad to Northville, stage to Speculator and livery from that village in. The former, however, is the more desirable route. On our first camping trip we used canoes taken from New York; the second time we hired rowboats for the stay at Indian Lake village. The topographic maps of the Geological Survey cover the territory and will prove of interest to anyone who visits it.

No doubt much of the standing dead timber has by this time fallen, and with the natural reforestation which has taken place in the past ten years, the old scars of flood and lumbering should to a considerable extent have been obliterated. In consequence of these changes the lake should have regained a measure of her pristine attractiveness.

A few yards in from the lake shores the country becomes sufficiently wild to satisfy the most exacting vacationist, and beyond—east, south and west—lies the uninterrupted Adirondack forest.



Jerking him out hand over hand

HOW TO FIND THE NORTH

(CONTINUED FROM PAGE 548)

for the first glimpse of the dry trees in the strip of burnt land I knew lay between the green woods and the clearings. At my back was an unbroken wilderness at least two hundred miles long and seventy-five miles deep! Ahead, just beyond the tops of those mocking spruce lay civilization, grub and comfort. Therefore I hurried on and on and on.

AFTER what seemed an immeasurable portion of eternity I came to a spruce pole that crossed the brook where it flowed through a dismal, narrow bog, or tundra. I recognized that pole with a shout of pure, unfeigned joy. Early that fall I had accompanied a domesticated Indian thus far into the wilderness on a friendly deer hunt. So this was Horse Brook? I thought it was Trout Brook! Sure enough, there were the corduroy poles bridging the wet places where the old logging road approached the brook. About twenty rods east of the brook I would find the old site of a burnt down logging camp. I hurried over the alder flanked corduroy toward the camp site. Perhaps I had been mistaken about the distance. Twenty rods, thirty rods, forty rods I ran, but still no camp site! Ah! back yonder the road forked. Perhaps I had taken the wrong road. Back to the brook I hurried and took another good look at that familiar pole. This time I took the other branch of the logging road. No camp site! There was still another branch of the old bush grown road. I tried this with no success. For the third time I went back to the pole across the brook, sat down and pondered. For the first time since I struck the brook, miles and miles back, I looked at my compass. It pointed due south! This was bad. I had been taught to believe that compasses were trained to point north.

And then a bright idea came to my poor over-strained mind. Which side of the brook was I on? Right or left? There was no perceptible current in that dead-water section through the bog, and as previously mentioned the ice was covered with snow. With almost human intelligence I conceived the idea that if the compass really pointed north, I must be on the west side of the brook! It seemed absurd, but it would do no harm to test the soundness of the hypothesis. I could afford to walk twenty rods just to humor the compass. I did, and there was the familiar campsite! I was so dazed by the astounding revelation that I refused a shot at a fine buck as I hurried, yes ran, the remaining two miles to the clearings.

Four years later in that very region a young man raised in the neighborhood became lost and ran himself to death in one day during a heavy snowstorm. Equipped with rifle, axe and grub he became so insane in a few hours that he neither tasted the food nor built a fire when darkness overtook him in a labyrinth of his own tracks! When found on the third day following, he was lying on

(CONTINUED ON PAGE 576)



Off the beaten track — with the *Indian*

Up the by-paths that lead to those tucked-away spots in forest or field, along river or lake—that's when a man feels the deep thrill of the outdoors. Free, strong—happy with the sheer joy of living.

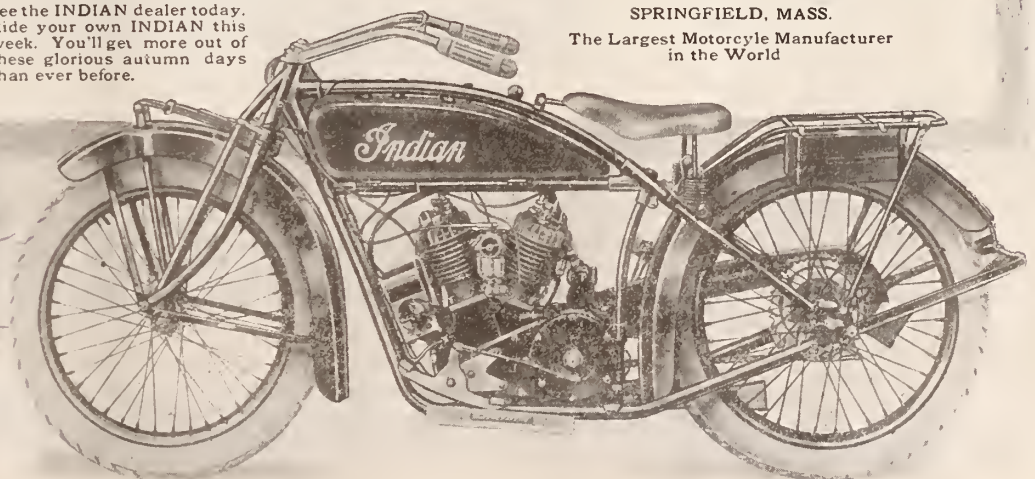
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A DEER HUNT IN THE BLACK HILLS

(CONTINUED FROM PAGE 521)

down the farther side. A few seconds later, catching glimpses of them through the trees as they went up the opposite slope, my brother halted them with a subdued "Ma-a! Ma-a!" Shooting across his knee, as he sat in the deep snow, he killed a small three-point buck with a shot through the shoulder at 125 yards. Ben's shot at the other, when it hesitated at the top of the hill, failed to score.

WE hunted the two days following, without success, and decided to move over to Gillette Canyon, five miles to the north-west. I was to take a mule and bring in the deer, while Win and Ben, after scouting around awhile where they had seen some fresh tracks the evening before, were to load the stuff into the wagon, and be ready to break camp about noon.

The boys had dragged in the second deer they had killed the first day, and, putting a front quarter of the venison on to boil, I harnessed my mule, and, hanging a singletree and the ax on the hames, I got aboard with my gun, and started for the big buck. Cutting a small pine tree, I rolled the buck upon it, and, mounting my mule, pulled it to camp.

The other buck being a small one, I decided to pack it in, tied across the mule's withers. Picking up the boys' track near where they had started the deer, I had no trouble in finding the spike buck, and, tying it on my mule, climbed on behind it and started away, much to the disgust of a flock of Camp Robbers, or Canada Jays, that had been very busy about the scene.

The mistake I made was in leaving the head on the deer. When we had traversed a few hundred yards, one of the needle-like horns gouged the mule in the ribs, and, with a sudden buck, she threw me and my gun ten feet away into a snow-drift.

Pitching and bawling, she plunged through the woods in terror, trying to rid herself of the terrible monster that had fastened itself upon her shoulder, and was clawing out her vitals.

I was very much afraid she might be fatally injured by the sharp spikes of the deer, which had turned under her, and, getting out my knife as I ran, I managed to come up and cut the rope.

When the deer fell, she planted both heels into it with a resounding smack, and, turning quickly about, with bared teeth and blazing eyes she rushed viciously upon it, and, biting out a great mouthful of hair, whirled away and disappeared in the timber. For twenty minutes the woods rang with her braying, as she made her way toward camp and her team-mate. Recovering my gun from the snowdrift, I took a short hitch on the deer's horns with the rope, and dragged it two miles to camp.

That afternoon we pulled over to a point on Gillette Canyon where the little valley makes a square turn to the north. In the angle, we had built a dog-house a couple of years before, and had found good hunting to the west and south.



There was something unusual about the horns

Here we hunted several days in mild weather, and, though we saw deer every day, had no luck until one warm afternoon, when I had returned to camp rather early, I decided to make another little foray, a mile or so to the south, where the heavy timber came to the edge of a big deadening.

It was after sun-down when I reached the border of the ancient burn. I was standing in the open, looking about, when I saw a good-sized white-tail buck, a hundred yards to the west, walking toward the clearing, his big antlers close to the snow, as he sniffed at some old tracks.

I fired as he crossed an open space through the trees. I lost him for a moment, in the flash of the heavy charge of black powder in the gathering dusk, and then saw him running to the south across the open, one front leg swinging at the knee. I fired shot after shot without result, as he swung around me to the east, and finally dropped him as he raised to clear a big log.

When I reached camp, an hour after dark, the boys, who had heard my fusillade, had built a big fire for my guidance, and were walking around it, puffing at their pipes, waiting to hear the story.

Ben had gone to the east that day, and reported the sight of the biggest buck that roamed the woods. The spread of his antlers, Ben illustrated with outstretched arms. He had followed him all the afternoon, shot at him running a couple of times, and finally left the track near where he had jumped him at noon. The next day, Ben announced, was the day set for the fall of the big buck.

But the next morning a howling blizzard was raging, with half a foot of new snow already fallen. Nothing daunted, Ben set out for the vicinity in which he had left the big deer, while Win and I mounted the mules and went off to the south, intending to bring in my buck of the night before.

After a fruitless swing far to the south-west, we came back across the deadening and loaded the deer on one



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of the mules—not the one I had used a few days before. It was many a day before we could get her near one again. When I had mounted behind the deer, Win went ahead and we started for camp.

We were soon in the heavy timber, where the storm lost some of its roughness, and were riding along jauntily, when a fair-sized white-tail buck jumped from a clump of short pines, and, after a few bounds, stopped at about 80 yards, no doubt puzzled at the appearance of our unusual cavalcade.

By the time he had stopped, Win was on the ground, one knee in the snow, his elbow resting on the other. At the shot, the deer jumped high in the air, and, running swiftly for fifty yards, went down. It was up again almost instantly, and, after another short run, was down again.

I had noticed something odd-looking about the antlers of the deer, and called to my brother not to shoot it through the head. He also had seen something peculiar about the horns, and, walking up within 30 yards of the deer as it lay with legs doubled under it and head stretched out on the snow, with ears laid back, he shot it through the neck.

When we came to examine it, we found the head to be indeed unusual. Upon one side was a perfect horn of four points, while upon the other were one of four, and another of three. My brother had the head mounted, and still has it in his possession. We left both deer together, for it was no use to try putting one on the other mule, and went to camp.

Ben had returned some time before. He had seen the big buck again, and he seemed bigger than before. Win threatened to get out and get that big buck himself, if Ben didn't quit bragging about it, but Ben said he would show him tomorrow.

By bedtime the sky had cleared and the wind had gone down. The snow was soft and noiseless the next morning, with just the tips of the brown tobacco-like rattleweeds showing, but nobody killed the big deer that day, nor the next. Although conditions were perfect, we hunted early and late for a week, without getting another deer.

ON the eighth day, I was skirting the wall of a rocky canyon, when I came upon the perfectly fresh track of a fawn. It was well on in the afternoon of a warm day, and the track in the snow, which was rapidly settling, looked as if it had been made within the last five minutes. I knew from experience that fawns are as hard to outfit as the wildest old buck, but he turned my way, and I thought I might as well see where he went.

I had proceeded perhaps a hundred yards on the track, which paralleled the canyon wall fifty feet from the edge, when it was crossed by another larger one, which looked equally fresh. I recognized it for the track of a wandering buck, and, leaving my fawn track for a minute, I slipped over for a look into the canyon to see if perchance he might be still in sight.

Standing looking down, a restless

movement in a thick clump of pin-pines caught my eye. Partly concealed by a large yellow pine, the buck had evidently just lain down, and it was the tossing of his antlers that I had seen. It was a choice of a shot at the head and neck through the closely standing saplings, or the chance of breaking a hind leg below the larger tree. The latter mark looked better, and, cutting as closely to the bark as I dared, I finally pressed the trigger.

Through the smoke of the discharge, I had a fleeting glimpse of the deer, as he sprang from his bed and disappeared among the trees. It looked like a clean miss, but when I got down to the place, I found blood on the track, and saw by the scoring of the snow beside it, that I had broken a leg.

There was no time to wait for the deer to lie down, for it was already sun-down, and I was four miles from camp, with the track leading straight away.

A hunter hates to leave a crippled deer in the woods, but when I had followed the trail two miles further, darkness compelled me to give it up for the night. I was still a mile from camp, when the boys fired a shot, which I answered, and twenty minutes later I walked in and sat down to the best looking supper I ever saw.

Win had come into camp in the middle of the afternoon, and, knowing Ben was off to the south, had gone out again to try conclusions with the now famous big buck.

Within a mile he found where a big deer had jumped from a clump of pines on a rocky point, and gone along the bench of a densely wooded gulch. The wind was up the canyon, so Win had kept to the right-hand fork, coming to the top of the low dividing ridge a mile above. His intention was to hunt out the bench with the wind in his favor, thinking the buck might be loitering somewhere along the line.

Slipping very slowly to the top, with gun cocked and ready, he saw the buck standing under the spreading limbs of a stunted pine, 70 yards away, looking back on his trail.

The deer fell in his tracks at the shot, and, going down to him, Win found he had Ben's big buck. It was not really a large deer, weighing in the neighborhood of 140 pounds, but the antlers, thrusting forward, close together, were unusually long and heavy.

We were knocking out our pipes, and considering going to bed, when two horsemen rode up to our camp-fire.

They were ranchers from the Wyoming foot-hills, going home from somewhere, and were the first men we had seen on our trip. They rested for an hour, before setting out on the unbroken trail, telling us something of the grizzly bears to be found among the rough spruce-filled canyons of the western brakes.

A number of men had been terribly disfigured in encounters with these savage animals, in different parts of the Hills.

At the time we started there had been a report that a man named Hark Mason had been killed by a grizzly, not far from the locality in which we intended to hunt

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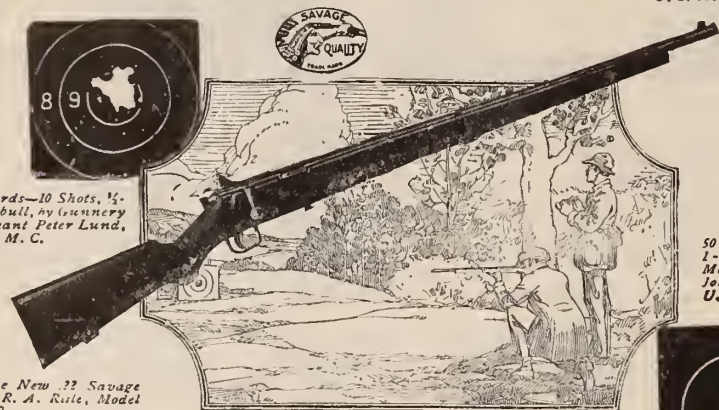
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“HANK MASON was a neighbor of mine,” said one of the men, in answer to our questions, “that is, he lived about six miles from my place. He and his young wife settled there this summer. They had a yoke of steers and some other cattle, and got up a log house and barn before it got cold this fall. They had built a log bridge across a narrow ravine that ran down between the house and barn, and one night a big Silver-tip grizzly came down and chased one of the steers under this bridge, and pawing away some of the logs, ate a mess out of the steer’s back.

“Mason heard the commotion, but it was pitch dark and snowing a little, so he did not venture out. When he found the dead steer under the bridge the next morning, he determined to kill the bear, whose enormous tracks he could see in the light snow-fall, leading up to the mouth of a brushy canyon.

“With a 38-55 repeating Winchester, he took the trail

“While no one saw what happened afterward, it was as plainly shown in the fall of snow, as a man could have seen it.

“When Mason had penetrated a half mile into the jungle of juniper, fir, and quaking-asp that covered the sides and bottom of the canyon, the bear suddenly rose up in the brush before him, 40 feet away.

“His one shot from the light rifle wounded the bear along the upper part of the fore-leg. As the big grizzly charged, Mason worked the lever to eject the empty shell, but failed to pull it far enough, crimping the shell in the breech-block.

“With a stroke of the bear’s paw, the jammed rifle was knocked 50 feet away, while Mason was struck down and bitten several times through the arm and shoulder.

“The man evidently losing consciousness, the bear covered him with leaves and needles, and went away.

“After a time, Mason regained his senses, and, going back a hundred yards on his trail, sat down on a log and took off his coat and shirt. Tearing up the shirt, he bandaged the injured arm, and replaced his coat.

“Meantime the bear returned to the spot where he had left the man buried, and, finding him gone, took the trail.

“Seeing or hearing the bear coming, Mason climbed into a fir tree, getting up as fast as he could, as the bear reared up.

“He was not high enough, however, for the grizzly caught the heel of one of his boots between his teeth, and, biting through boot and ankle, dragged him to the ground and killed him. A large limb broken off half-way up the tree, showed that Mason’s despairing hold had not been broken.

“When her husband did not return, Mrs. Mason took the track and found his body, where the bear had left it for the second time

“Some Newcastle business men, hearing of the killing of Mason, offered \$100 reward for the bear.

“A party of hunters secured two new-

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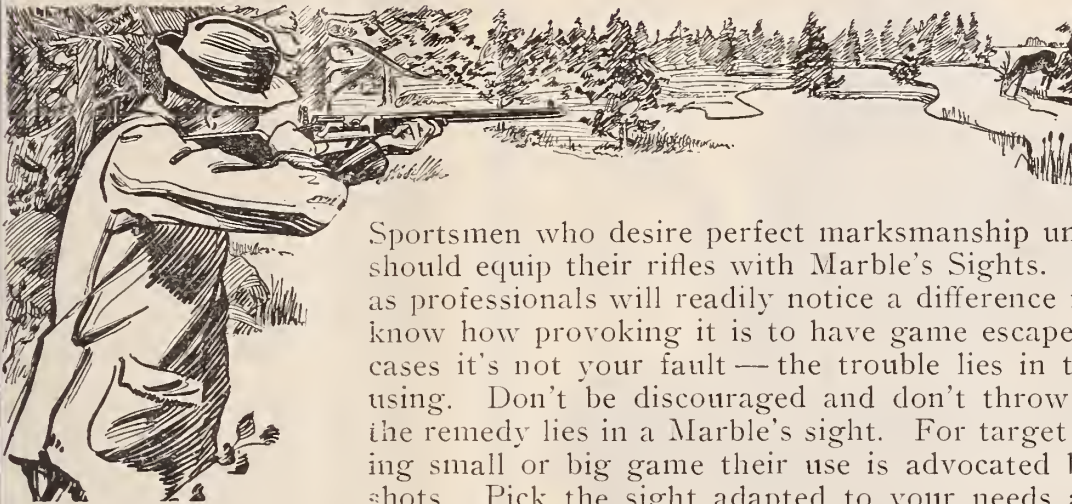
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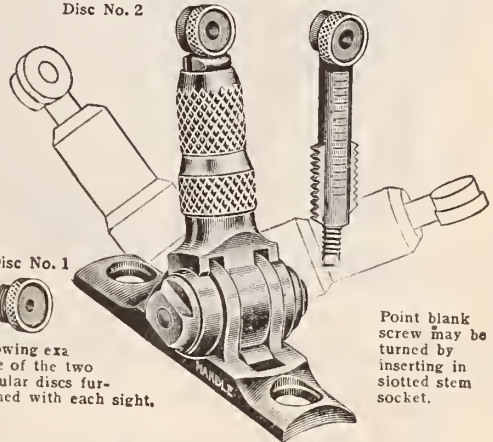
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ly-imported Russian wolf hounds, and, going to the scene, started the dogs up the canyon, while they kept to the open ridges. Soon a terrible commotion began in the jungle, and shortly the big bear came out with one of the dogs between his jaws. The other was dead in the brush below.

"A volley of shots killed the grizzly, whose skin and head were mounted in an upright position by a taxidermist, and placed on exhibition in a Newcastle butcher-shop. With haunches upon a foot-high platform, the upraised paw is 10 feet from the floor."

When our visitors had departed, we thought the matter over carefully, before going to bed, and arrived at the decision that we had not lost any bears.

A FEW flakes of snow began to fall softly down, as we prepared to turn in, getting gradually thicker and heavier until the air was full of it. It looked as though there would be a slim chance of getting my wounded buck.

In the morning there was a foot of fresh snow. There had been no wind, and it lay soft and white, as it had fallen.

I had left the track away to the southwest, near Indian Spring—a small seep half-way up the north slope of a little canyon, which few hunters have ever seen—and, making a wide swing, my brother and I came to where I had turned back, about ten o'clock.

The tracks were mere dots on the surface of the deep snow, extremely difficult to follow when they went among other tracks, as they frequently did. When the trails divided again, it was necessary to follow each for a short distance, kicking up the snow, until we found blood.

In this way we had kept on the track for perhaps a mile, Win on the trail, and I off to the left a hundred yards, when I saw him stop, as though he saw something.

I could see nothing but the level surface of the snow, where it stretched away between the trees, but complying with the hunter's law in such cases, stood perfectly still.

He advanced slowly and carefully to a big pine, from which I supposed he would shoot. He passed the pine, however, and went on in a half-crouching position, now apparently making for the up-turned roots of a fallen tree, a hundred yards ahead. When he reached this shelter, I saw him reach up, and, with infinite caution, take down the snow, until he could rest his gun across the root.



Fresh meat in camp tonight

After what seemed a long time, he fired. I saw a deer jump from a small thicket, and start away to the right, to drop when he fired the second shot. Seeing him walking rapidly straight ahead, I cut across, and soon saw another deer lying in the snow, clear across on the opposite slope. This was a small white-tail, and had been hit back of the shoulder, at about 200 yards. The other deer was my crippled buck.

We decided to devote the following day to the business of getting the deer—five of which were still hanging in the woods, frozen hard as rocks—into camp, intending to start home the day after.

We arose rather late that morning, and were preparing our regular camp breakfast, of which we had begun to be a little wearied, having had it without variation for nearly a month, when my brother straightened up from the fire where he was cooking, and looked fixedly in the direction of the wagon. After a moment, he strode over to it, and, climbing upon a front wheel, drew a round white object from a corner of the box.

It was a half-gallon jug of Vermont maple syrup he had put on board the morning we started, and forgotten until that minute.

Never before or since have flapjacks seemed so delicious as the ones we had that morning. We still had a couple of pounds of butter, and two of us turned them hot from the frying-pans, while the third ate. When the man at the table—top of our big grub-box—failed to keep the deck clear, it was his turn at one of the pans.

THE OLD DRUM-MAJOR OF MT. RAT

(CONTINUED FROM PAGE 523)

surveyed the shot-off tree stub, wondering how this is so often done in snap-shooting in the brush, while Bess went back up against the old stone wall and lay down in the sun and for the rest of the day would not even come within reach of my hand.

Another open season gone—winter went by and summer came. Bess raised a family of wonderful babies and had no time to spend with me afield—only an occasional trip to and from Old Forge Hole in the river where we went for a swim.

But as the days grew shorter, the nipping night air browned the green leaves, shriveled the wild grape and painted the sumac and the birch, out came the gun again. For days Bess and I enjoyed the sport of kings; never have I seen grouse so plentiful—red letter days—a wonderful dog—what more could one wish for?

And so, with only a few more days left before the gun went back to the rack and Bess to the old sofa for the winter, we tramped the hill, only one thought in mind—that old white winged drummer. I almost began to believe him a shape, protected by some magic not known by mortal man or that he was possessed of some power that allowed him to keep just beyond the range of harm and baffle us with daring flights.

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STANDS there one picture of days afield, framed in the dazzling gold of memory's eye, that time cannot tarnish nor the flight of years turn dim? Then listen to the gem of my collection, hung on the eye line of my gallery. Picture a day in early November, the sky as blue and the air as clear as any in the Indian's summer, a day of painted shadows; the hills and dales beckoning an invitation to the glories of their leaf carpeted aisles where man might hold communion with nature's visible forms—and to a day with dog and gun. Naturally Bess led the way, and that way to her was to the cover that held the wily old partridge. I never saw her hunt the ground so closely back and forth, investigating every suspicious trail. She seemed conscious that it was to be now or never, as the open season was so nearly gone.

We crossed the first birch cover into the chestnut grove, down through the orchard, back onto the old road bordering Mt. Rat, and it seemed as if we were doomed to failure Bess came out into the road, put her nose into my hand as if to gain some little encouragement from my touch, then started away toward the old apple tree in the wall corner, the last bit of cover between us and the river. And then the end came—a flashing point, a whirr of husky wings, a sharp report, and a grouse lay bouncing, drumming his last long roll on the old wood road. Bess was there almost as soon as the bird fell, and as she came to me I saw the white wing. We sat side by side, and while she nosed I stroked the beautiful feathers. Could I have given him back life again it would have been done. But Bess willed it otherwise; taking the bird from my hand, what was my amazement to see her start back with him toward the old apple tree and the stone wall corner, and begin scratching and digging in the leaves.

Then placing the old drummer carefully in the grave she had made, she



Bess whirled and stiffened in a point

covered him, pushing leaves and dirt back over him with her nose. It was a tribute well deserved, and was I to desecrate by insisting that this noble bird should end in the kitchen oven? No—Bess was right—I made the grave deeper while she sat by, her dirt covered nose and the big brown eyes eloquent of the tribute she paid the fallen drummer.

And so we left him. A mound of stones from the old wall covers him today—the grave of the Drum-Major of the New England hills. And now, each season, the falling leaves cover two graves in the corner of the wall, for when Bess traveled away to take up the old drummer's trail in the hunting grounds beyond the setting sun, I made her a grave under the apple tree, where the blossoms of spring, the song of the wood robin, the falling leaves, the woodcock's whistle, the blanket of snow, and the moonlit gambol of Br'er Rabbit mark the passing of time for her, as she sleeps side by side with her friend, the Old Drum Major of Mount Rat.

AND now as the years pass along, A comes with each closing season the sad story of the disappearing grouse. The partridge of the high brush and the hills will soon be found side by side on the dusty museum shelves with the wild pigeon. You who have thrilled at the bomb shell flush; you who have followed the running bird only to be outwitted by his cunning in breaking cover at the end; you who have gloried in the days under the red and yellow leaves, hunting the greatest of all America's game birds, stand by him now. Help by your voice and by your trigger finger in protecting and perpetuating this glorious brown feathered ruff-neck of the hills and swales.

A MANUAL OF WILD-FOWL SHOOTING

(CONTINUED FROM PAGE 529)

the Middle Atlantic States. And if the winter is mild, they often spend this season of the year on Barnegat Bay, New Jersey, and thereabouts, without flying further south.

In the early spring they start on their long journey to the northern breeding grounds. Because they make their nests so very far north, but little is known of their domestic affairs. It is reported that they not only go to the shores of the Arctic Ocean, but far beyond, and that they must rear their young out on the great wastes of the Polar Ice Pack.

Brant are often seen in very large flocks. I have heard the baymen speak of "gangs" of brant, and this aptly describes their appearance. They do not fly in long lines or in the "V" formations as do the wild geese, but in masses, without order and without a leader. They are noisy fowl and the continuous "Ruck, a-ruck, a-rue, a-ruck, a-rue" from many feathered throats can be heard for a long distance.

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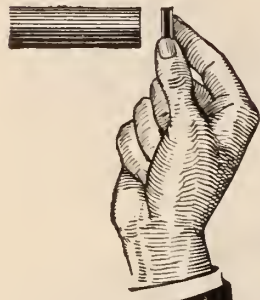
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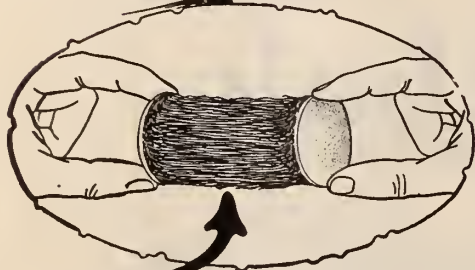
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On calm days they fly slowly and sedately, with a certain solemnity about their movements. But in rough, windy weather they become a very part of the storm. The abandoned disorder of the flock, the care-free dipping and rising of the birds to the sudden stronger gusts of wind, their clear calls, now low, now high in tone, the intermittent flashing of their white under parts as the dark wings sweep upward, all seem to hold the very spirit of the wild, to tell of long air trails among the clouds and winds and adventure without end.

High flyers and sea lovers, the majority of brant do not follow the coast line closely, but keep a straight course north and south, often touching on only the eastern-most points of land. At low tide they are seen walking about on the flats in the bays tearing up the eel-grass, and consuming quantities of sand on the bars. They are wild, shy birds and next to impossible to approach. They are taken more easily over decoys than in any other manner.

They are shot like other water-fowl from shore blinds and from batteries anchored out on the open bay. They are also shot from a sink-box placed on a sand bar, although this method, and the use of a battery, is now unlawful in many places.

Brant are often shot along with the other water-fowl from the same blind during the same day. Often a mixed flock of geese, brant and duck decoys, both live birds and wooden, are used and all three kinds of fowl bagged over them. Of course, the sportsman going after brant alone will do best with only brant decoys. The hunter familiar with the note of the brant often turn the birds to the decoys by "calling." A foot raised and lowered quickly from the battery will also attract the flock's attention.

Brant do not fly very rapidly and are not difficult marks when they come to the decoys. Their flesh is usually excellent. I, personally, would not place a well-roasted brant second to any other game bird.

Brant often have well-defined lines of flight up and down the bay or over the marshes. As the tide begins to ebb there comes a steady procession of big flocks (where the birds are plentiful) all headed for the sand bars and grass flats, where the receding water will soon lay bare an abundance of food. When the tide

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changes, they seem loath to leave, and often remain feeding until the incoming water lifts them off their feet. Even then they will often stay on, provided the water at flood tide is not so deep as to prevent them from reaching the grass by thrusting their heads and necks under the surface. Unlike the sea ducks, the brant do not dive for food; they never dive except sometimes as a means of escape when wounded.

THE same guns used for geese and ducks are used for brant shooting. The sportsman who owns a 10-gauge may use it to advantage, but a full-choked 12-gauge, when properly loaded, will, in the hands of a fair shot, account for all the birds allowed in a day's bag as now limited by law in many states. Number 4 shot will prove satisfactory under ordinary conditions. If the fowl are unusually wild, the shooting at long range and the wind strong, number 2 shot will be more effective. I have used number 5's on brant and at other times as large shot as BB's, and also the intermediate sizes.

The smaller sizes of shot are effected by a strong wind to a much greater extent than are the larger sizes. Therefore, in very windy weather the large shot is best, since the heavy pellets carry straighter and maintain their velocity and penetration at killing ranges better than the lighter pellets. I have dropped brant dead upon the water with B and BB shot in a full-choked 12-gauge at very long ranges, where, had 4's or 5's been used, I believe the result at best would have been only a wounded bird. On the other hand, too large size shot for the gun in question should not be used, since a killing pattern or spread of shot is then sacrificed. A dense pattern of number 4's, where the pellets are evenly distributed over the area of the spread of shot, will more surely account for a bird than will a poor pattern of B shot, where the pellets are so few as to leave many places in the area of the spread of shot through which a bird could fly unhit.

Generally speaking, BB's or even B shot are too large to produce an effective pattern when used in the average 12-gauge gun. I happen to own a full-choked 12-gauge which shoots unusually hard and close, and this gun handles shot as large as BB's with good results.

Different guns of the same gauge, and even of the same amount of choke, often handle different sizes of shot the best. By shooting loads of different sizes of shot at a large paper target, set up at an average range at which the shooting of the birds will be done, the sportsman can determine just what sizes his gun handles to the best advantage. The matter of guns, blinds and decoys, as regards wild-fowl shooting in general, will be more fully considered in the forthcoming article on duck shooting.

IN looking over some old hunting notes, by way of checking up a memory that can hardly forget days spent with the gun, I find the account of an experience I had with brant on the bay some years ago which I will mention here.



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It was nearing the close of a week's hunting on Barnegat Bay, New Jersey. The bayman and I had been unsuccessful with the ducks. The weather had been very poor for shooting, being mild and calm, and, although there were thousands of ducks on the bay, the fowl refused to decoy, with the exception of a bird which now and then came to us.

Each day as we lay hidden in our sneak-boxes on the point, many brant in one large flock after another would pass our position, flying high and far out over the open bay. For a half hour or so in the morning there would be a continuous procession of flocks, all headed south. In the distance we could see the fowl slowly nearing the water as if about to alight. In the afternoon the brant would come back, passing us again. The birds paid not the least attention to our decoys.

The bayman knew just what the brant were doing: they were spending the hours of low tide on a long, high sand bar, exposed by the receding water, out in the middle of the bay, about four miles to the south of us. My host knew of a box, which had been sunk on the bar to be used as a blind, and suggested that, as the shooting had been so poor, I try my luck at the brant next day.

Before daybreak next morning we left the comfortable house-boat and started on our long row in the little sneak-boxes. I keenly enjoyed being out on the black waters of the bay, where the gloom closed in thick about us, with tiny stars twinkling over head, a faint salty breeze coming from the sea, and now and then the whistle of a black duck's wings to break the stillness of the night.

The darkness did not bother my host, he laid our course as if by daylight. At last, when dawn was spreading in the east, I felt my oars scraping on bottom and as the bayman slowed up in front of me, he explained that we were along side of the bar.

The tide fell rapidly and we did not have long to wait before the bar showed above water. My blind was to be a shallow, coffin-shaped wooden box, sunk with the rim just level with the surrounding sand. The box had been pitched at the seams but now leaked badly, and as the tide fell the water within drained out through the cracks. We scooped out most of the wet sand from the box, then spread a rubber blanket in the bottom. With my gun and a box of shells I stretched out on my back in the box, while the bayman, with both boats, rowed away to a sufficient distance so as not to alarm the birds.

It was not long afterwards when a single brant came down the bay from the north and circled the bar several times, each time around bringing him nearer to me. I lay motionless until he passed well within range, then dropped him with a shot. A few minutes later a small flock of brant appeared in the air to the north, headed for my position. They flew straight for the bar and, after making a circle, set their wings in graceful curves and sailed down to the sand. I bagged a pair of them. The survivors swung quickly away and started back up the bay.



Greater Snow Goose
(*Chen hyperboreus nivalis*)

I was much pleased with the way the morning's shooting had started and looked forward to making a good bag of birds. But I did not get another shot. I waited long and patiently, but not another brant came to the sand bar.

Although a little water was in the box, the rubber sheet had kept me dry. But later on, with the rising of the tide, the water began to trickle rapidly in through the cracks. Things became decidedly uncomfortable, to say the least. I signalled to the bayman and he came to my rescue.

STILL determined to get more brant shooting if possible, I suggested that we go again to the bar next morning. My guide, always anxious to make my gunning trips with him pleasant and successful ones, was glad enough to go, but he remarked that he had an idea that the brant knew when I was on the bar and that I would not get much shooting. However, we started, and after the long row we reached the bar as ebb tide was uncovering the sand. I concealed myself in the box and the bayman rowed away with the boats.

I had not been long alone when, exactly as on the day before, a single brant showed himself to the north. He came on and made several circles about the bar, as if watchful for hidden dangers. Finally he flew directly across the bar. It was an easy shot and, fully confident, I led him a little and fired. I missed him clean, then missed him again with the second shot. I was thoroughly disgusted with myself, but at least glad that no one was near to witness the bad shooting.

The brant curved swiftly off and headed up the bay in the direction from whence he had come. When that bird disappeared from view, I felt misgivings. And in this case they were well founded, for not another brant came to the sand bar during the low tide.

This day had been very much of a repetition of the day before, excepting that the single brant I had just missed played the part of the first flock from which I had killed the two birds on the first day. I described the experience to my guide. He was firmly convinced that the single brant, the first birds to appear on both days, were scouts coming

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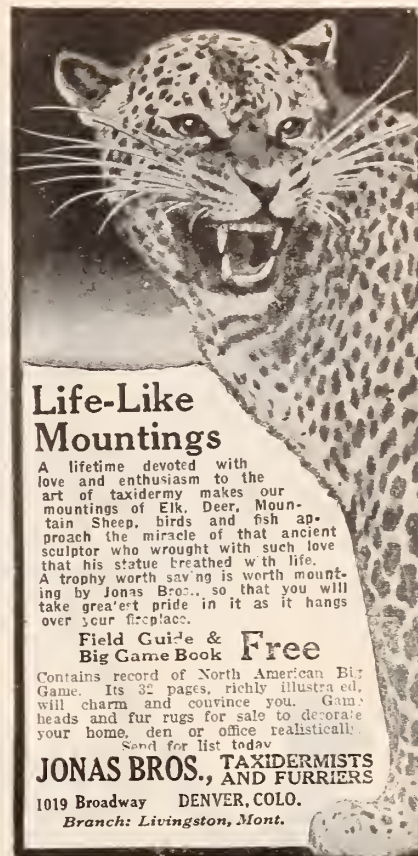


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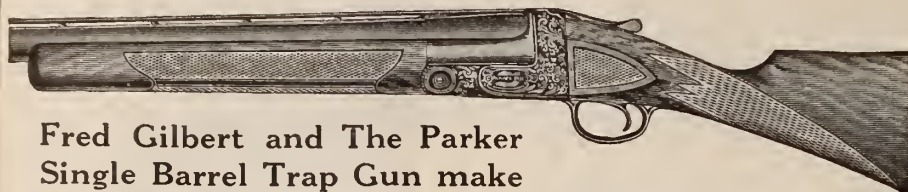
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to look the bar over for possible dangers before the approach of the flocks. And it certainly looked as if such was the case.

I had killed the scout, if such he was, on the first day so, receiving no warning, the first flock had paid me a visit. The surviving birds of the flock went north, and there ended my shooting. On the second day I had missed the first brant, he went back, and my shooting ended at once. Every one has seen a crow on watch in the top of a tree while the rest of the flock fed in the nearby field. No doubt the brant may be credited with as much intelligence.

A REMINISCENCE OF ROOSEVELT

(CONTINUED FROM PAGE 524)

Commissioner was interested in a trip I had recently made exploring Big Horn Canyon, about the last of our canyons to remain unexplored.

The Commissioner said he had shot a few elk on their hunting trip, but had not gotten a good head in the bunch and had not seen a bear.

I told him that at our camps on the head of the South Fork of Shoshone River and Buffalo Fork of Snake River, we had been bothered by bear. At times we would meet them on the trails and had to make a wide detour to get around them.

The ground around our surveying instruments (which we left on the line overnight) would be found well tramped by bear who evidently had been satisfying their curiosity during the night. In crawling through some thick brush one day I surprised two bear and frightened them almost as much as myself. One of our horses died about a half mile from camp and bear visited it for several nights, much to the discomfort of the horses in camp. Roosevelt remarked that it was always the way on going hunting, if you had only gone some other place you would have gotten what you wanted.

We had a hunter named Jim McLaughlin in our survey party who kept the camp supplied with elk and mountain sheep. Jim said he would go on a bear hunt a little later in the fall when the bear fur would be better and he did so, killing eight silver tip grizzlies.

In talking about bear, I referred to the remarkable exploits of Colonel William Pickett, who had a ranch at the head of Grey Bull River, not far from one of our camps. The Colonel killed twenty-six bear one season, killing all but two with one cartridge each. One afternoon he killed four bear at a certain place, where later the Government established a post office named Fourbear.

The Colonel was a charter member of the American Society of Civil Engineers (of which I was a member) and took a prominent part in the Civil War.

The season having closed in the Park, the only transportation to the railroad at Gardner was by horseback, the Commissioner regretted having to take the guide with him and leave his partner Ferguson in camp for so long a time. I

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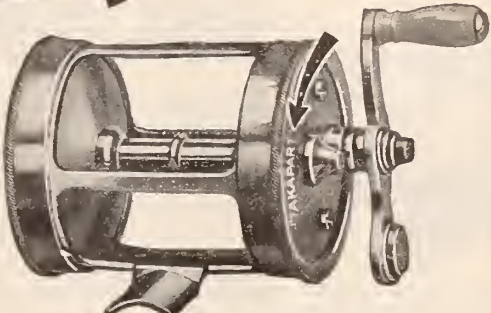
told him he could have what horses he needed from our outfit and I would help him pack through the Park and lead the horses back on the return trip. This would enable him to send the guide and horses back to his camp the next day. This just suited the Commissioner and he gladly accepted the offer. The next morning Roosevelt and I packed one of the horses, he being an expert with the diamond hitch and I doing the work of assistant. Just as we started from the Inn, Larry shouted, "Hurray for Roosevelt for President in ninety-six." The Commissioner laughed and shouted back, "Too soon, Larry, too soon."

On our trip through the Park we were invited to dine with Lieutenant Pitcher and never forgot the delicious dinner served us. Some 15 years later, on meeting President Roosevelt at Washington, almost the first remark he made was to ask if I didn't remember the dinner Pitcher gave us.

SOME years later the President had been making a tour of the country in a special train, which was side-tracked at Gardner, while he inspected the game in the Park and absorbed the sunshine. I was superintendent at the time of the Sheridan Division of the Chicago, Burlington & Quincy Railroad and went to Gardner to arrange the schedule of the President's Special over the road, also by his invitation. As we stopped at the various stations along the line, the President made short speeches from the rear platform. We finally approached the town of Gillette, Wyo., which had been named for me on account of my having located the railroad through that section of the country. The President turning to me said: "What shall I talk about to the people in Gillette?" I told him they were the pioneers of the country and doing a great work in its development. "By the way," I said, "this reminds me that one of the cowboys who used to work for the 101 Ranch nearby told me you had come to their round up at a certain time and that he had shared his bed with you." The President exclaimed: "That's good, that's good, I'm glad you told me."


On arriving at the town the President gave the crowd assembled a good talk on the work they were doing as the first settlers in the country and then asked if there was anyone there who had worked for the 101 Ranch. A great many held up their hands and said, "Aye, aye." The President with a broad smile shouted, "I know you boys! I know you! I've slept with you on the round-up." A great roar went up from the crowd and I noted at the next election that the President got a big vote from that district. A little further down the road the trainmaster came to me with a bundle of train orders, saying that the trainmen, including the engineer and fireman, would like to have the President sign them so that they could have something to show for having run the President's Special. I presented this request to the President and he said, "Certainly, certainly, I belong to the Order myself." The men were greatly pleased to get the President's signature on the train orders. I kept one myself and have it at the present time.

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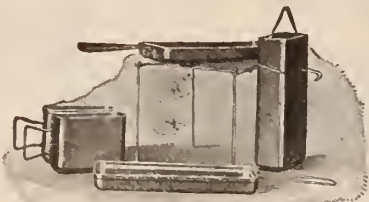
(CONTINUED FROM PAGE 533)

First split ring, in eye of hook; first swivel, in ring; second split ring, in other eye of swivel; spoon, hung on split ring; second swivel, rear eye on second split ring. Cut pork minnow an inch wide and three inches long; split tail up 1½ inches; make eyelet hole in head-end with hunting knife, and hang minnow in shank of Bing fly hook. The bait is now done. You have, in succession, a white pork minnow, a red fly, and a shiny flashing spoon, hung in front of it and free to revolve between the two swivels. It casts well and accurately, and, when retrieved through the water, the wavering currents from the spoon cause the minnow to wiggle in a very lifelike manner. The bass strikes at the red feather, folding up the minnow and hooking himself on the big hook. If you expect pike, hang a treble hook in the shank of the red fly hook, and put one of its prongs through the minnow, just above the split of the tail. This bait is one of my favorites. The only time it scored a distinct failure was in a rocky Maine lake where the bass were exceedingly partial to red underwater minnows—why, nobody knows or can even guess!

Another good bait, when the bass run so small as to be scared off by your well-meant attempts to bean them with a wooden minnow, is a small Number 1 spoon, with treble hook and red-and-gray feathers. This is skittered with a fly rod, using the switch cast. The canoe is maneuvered along, about thirty feet off shore, and you cast across it, skittering back from the shore to the canoe in lazy jerks of the rod tip, which serve to keep the spoon revolving. When the lure gets back quite near the canoe, it is snapped out of water, and it then sails overhead off-shore to the limit of the back cast, when you snap it forward again and land it in your chosen spot. About twenty feet of line is all that can be handled with this cast, but it is very effective, for your lure is in the water, and luring for all it is worth, most of the time, instead of half of the time, as is the case with plugs cast with the bait-casting rod. A short, gut leader two feet long is also very effective with this spoon. It provides an invisible connection between the spoon and the line, thus imitating successfully a minnow in distress, flashing his belly up, without any discernible human guile back of it, so the bass strikes, and is undone. Using this rig on Lower Saranac, in late August, my wife beat me six to one of an evening's fishing, and repeated the drubbing for six successive evenings. I was using the bait casting outfit and a diving minnow. Her fish were all small, bass from 1 to 1½ pounds, and pickerel up to 2½ pounds; but, when I *did* get a strike, it was either a big bass or a four-pound pike—so both of us were satisfied!

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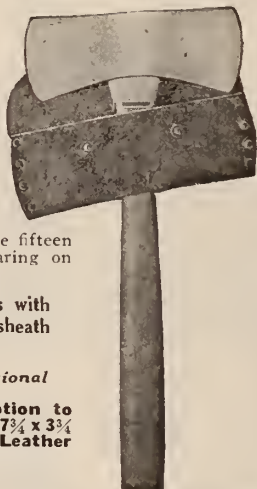
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ning reel and a Number 5 braided silk line. Your helgrammite is your true cootie; he positively yearns to plant his feelers in where you will yell with appreciation, reacting to him by flipping him into the middle of next week—and his freedom! However, your thumb on his head, and your hook through his tail, is the story, after which he is paid out into the current until he whirls about in an eddy seventy-five feet away. And, about then—some chesty specimen of the bass tribe, in the featherweight class, will lam him for the count!

The right places at which to cast, when your boat or your canoe is gliding along some forty feet outside of the lily pads or the rocky banks of the lake, is one of the fine points of the game worth studying out. Hon. Bass, Esq., is as predatory a plutocrat as ever shook fins with a hay-rube blue-gill, and he has a flair for opening his bucket shop under a sunken log, a dock, a boat, a cove in the lily pads, a crack in the rocks, a hollow in the stumps—any place where he can order his shell of beer at a comfortable table and watch the passing crowd for suckers. And here is where the tyro and the half-practiced amateur fall down in bait casting, for, to hurl the plug into his lair, accurately, and with finesse enough not to give the game away, requires practice in casting—about four centuries of it, more or less. The natural phenomenon you are to simulate, is that of a froglet leaping off a lily pad and starting to strike out for somewhere else, or a minnow making a voyage of discovery to parts unknown. Your lure crosses Mr. Bass' lair, casually—and he gets het up, right off, and biffs the intruder. I know expert casters who always start their return before the bait strikes the water, so that, from the moment it attracts the bass' attention it is hurrying to get away from him. I have no such finesse myself, but generally find that a good cast, accurately placed in some likely cove or lair, is rewarded with an instantaneous strike if there is a bass lurking there.

And, once hooked, what then? With the short, five and a half foot bait-casting rod, you most truly have your hands full! The bend of the rod is but two and a half feet, so virtually all the play must be done on the reel. If this is not braked judgmatically, either it runs wild and backlashes in the middle of the fight, or you get too stubborn and he breaks the line. Coolness—just when your heart is pumping so hard you can hear it if you open your mouth—is the grand essential. When he rushes, give him line, braking the reel with your thumb against the spool cheek, or else with your forefingers across the rod under the reel and resting against its drum. Both ways have their advocates. If he rushes for the boat, reel up slack, and don't be in too much of a hurry to slip the landing net under him, for he is nowhere near played out yet, and will likely get away just as he comes over the side. Let him go, and if he runs under the boat, turn it with a stroke of the oar. Two of his favorite tactics are, dashing for a wad of roots and tangling your line in them, or else hiding behind a mess of lily pads, where you cannot drag



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him through and must get the boat up to him. Hold him off such places with the full strength of the rod, for unless you have set the hook very deep with a stroke counter-strike in reply to his, he will get slack and shake out the hook. I have lost many a good bass who saw the snag, or the raft of pads, before I did! A regular stunt of his is to make a smashing leap out of water, shaking his head like a terrier, with the object of snapping the bait out of his mouth. Drop your tip and pull him down. Sometimes he is successful in this maneuver, particularly with a heavy wooden plug, and will snatch it ten feet off and give you the good-a-bye, John.

I WOULD like to digress here, for a word on the landing net. Without this useful little tool your fate lies in the lap of the Red Gods, up to the very moment you have your hands on the bass and are strangling him to death in the bottom of the boat. Many and many a bass have I lost, in the very last minute of play, simply because the landing net was hanging up on a tree in camp, instead of being right there with a smile on its face. Two ways to beat out the lack of one I have tried, sometimes with success. One is to take advantage of one of his rushes toward the boat and lift him right on over the side, with a quick rise of the rod-tip. He usually spins out of water and comes in over the plate like a fade-away, and, if you are lucky, he will land somewhere within the confines of the gunwale, where you can fall on him and club him to death. But, woe to you if he hits the gunwale first! The second way is to utterly tire him out, and then maneuver him alongside, when you can dip your fingers stealthily into his gills and yank him aboard. A third way, that I have heard of but never successfully tried, is to half-upset the boat, and take him in on the flood tide that pours over the gunwales. It's all right, if you half upset the boat, and then leave well enough alone! Also, if he does not feel the gunwale under his belly and dart out again, snagging the line around the oarlock, as a beautiful, green, three-pounder once did to me.

As to still fishing tactics, bait fishing in deep water from an anchored boat, the main answer is fish-psychology. There is a subtle message, telegraphed up the line, that tells the true angler when the time to strike has come. It cannot be told in words; you must just get it, that's all! Anchor the boat at both ends, in some cove where there are rocky ledges dimly visible down in the depths, or huge boulders with dark lairs in between them. Then put on your frog, hooked through the corner of the upper lip, and cast him where he will sink down near the ledge or lair. Leave the line perfectly free, with click off the reel. Sooner or later the line will begin to move off stealthily. A bass has your frog, and is taking it somewhere before making up his mind to swallow it. Wait! The urge to strike is unbelievably strong, but you'll simply get back your frog if you do. Finally he turns him around in his mouth, which operation takes time, until satisfactorily completed, and then he swallows him—and



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(Continued on page 575)



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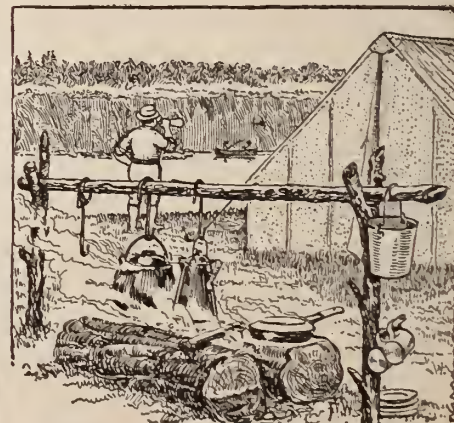
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then you strike! All of which is telegraphed up the line, in sundry wiggles and twitches obvious to the experienced angler, but is a period of high-tension nervousness to the tyro. The rest is bass fighting tactics; except that I have found that twenty minutes is long enough to keep froggie down without drowning him.

Of fly fishing for bass I have had my share. It seems less strenuous than wading the streams for trout, for one sits at ease in boat or canoe, and casts some clear-water mountain lake, with plenty of room for one's back-cast, and plenty of water to play the victim in. The fly rod is so inevitable, with its never-ending give and take, that the fish is sure to come to net in time, with never a chance for his life. All that is required of you is to keep cool and guide him off snags and brush piles. The story would be different with a large bass on, say a five pounder, but I always stoutly maintain that the bait-casting method is quite as sportsmanlike as, or even more so than the fly-casting method. It certainly gives the bass more chance to get away, except in the hands of an expert caster.

THE great charm of bass fishing lies in the moods of Nature under which it is done. There are two times to fish: the first in the early morning, when the mists are still over the lake, and its hazy shores ring with the call of birds, and the sun is rising behind the mountain, edging its serried flanks with gold. One or two tours of the lake shore, with the steady plop! of the lure at every likely spot, ought to yield you your breakfast and then some. By ten o'clock you are through and can go back to camp for a feed and a rest-up until four o'clock. Then is the second time to fish, when the wind has died down and the lake is getting its mirror ready for the pageant of the setting sun. You sally forth, and for two or three hours, are casting for bass, floating in a lily leaf, across a pearl and opal sea, while all around you the mighty symphony of the dying day is progressing, measure by measure, from burnished gold to copper red, to pale yellow with purple shadows of the trees and mountains reflected in the water, and, finally to a cadenza of maroon, deep purple and dark blue, when the lily pads are but black shadows, and the pickerel-grass fine pencil-lines on the deep red of the afterglow, written upon the silent waters. And so to bed—it has been a great day!



Calling the fishermen to supper

FISHING AT MONTAUK

(CONTINUED FROM PAGE 546)

Reaching the shack I consulted my friend, Captain M., keeper of the light, one of the best men I ever knew and a good fisherman. While no fish had been caught recently we knew conditions were right. What those conditions are I will state later. Next day Captain M. and I fished about six miles of coast from Morgan's to Stony Brook and did not raise a fish. Three other rods fished the rest of the coast from Ditch Plains station to Morgan's with the same result. The prospect of fish looked poor to me so that night the "Cat" and I went into executive session before the open fire place. We doped things out as follows:

The fish must be somewhere as it was the best time of year. Casting conditions were right—a heavy surf and no wind. The tides were right—flood early in the morning and again late in the afternoon for, be it known and remembered, bass at Montauk don't strike much in the middle of the day. All the conditions were good, but where were the fish?

Down here we believe that striped bass, just before they hole up for the winter, frequent gravel bars. Some of the old hands say they fill up on gravel. Suddenly we remembered that the one place not yet fished was the Point itself and within 400 yards of which lies a gravel bar, south of Jones' reef.

SUNRISE next morning found us on the shore just south of the Point.

A heavy sea and strong young flood tide were running but no wind. Gradually working along shore and casting we did not raise a fish until we reached a large rock at the tip of the Point. Off shore from this rock about 100 feet is another rock, the top of which projects out of water at high tide. About 50 feet north of this rock and outside of it are two rocks covered at half tide. Between these rocks is a hole where the flood tide makes an eddy. The moment my jig struck that eddy I was fast to a bass of about ten pounds and landed him. In the next two hours we landed 8 fish whose combined weight was 79½ pounds after being out of water some hours, so I think it fair to say they weighed 80 pounds. The tide then turned ebb and the fish stopped biting, so loading my car up we ran to Fort Pond Bay and sent the fish to different friends. Returning to camp we put away a good lunch, dried our lines and rested the rest of the day. About 4 p. m. we went back to the same place, the tide being again at flood with a good sea running. Between then and dark we landed 6 more fish and lost three, two simply because I was too tired to play them properly and one fish lost because my line parted. This was a new special 21 thread surf casting line and had been dried and turned but it wore out in one day by constant casting. It is always best to bend on a heavy piece of line to take the friction through the guides of the first few feet. The 14 fish weighed 140

pounds. This I believe to have been the record at Montauk for one rod during one day. This record, however, was beaten about one week later by Mr. H., who took 20 fish. Next morning I had to return to Southampton, but I thought I would try a few casts first and landed one fish on the second cast weighing 16½ pounds. Then I quit.

To get bass at Montauk my advice would be, granted that you can cast at least 150 feet, to lay aside the idea of using any kind of bait. Use the Diamond 3½-inch block tin jig, a spring butt surf casting rod and a casting reel arranged to disconnect the handle from the spool, making it free running. This reel should hold at least 400 ft. of 21 special surf casting line, also a rod butt holder to fasten with strap around the waist.

As to clothing I would advise you to wear woolen underwear, a flannel shirt and, in October, hip boots with straps at the tops to fasten the upper parts tightly around the thigh. Oil skin pants cut off below the knees and worn outside the boots and plenty of heavy socks.

FISH the entire shore from Ditch Plains coast guard station, about a mile from the Inn at Fort Pond Bay terminus of the L. I. R. R., where you will probably stay, clear around to Montauk Point—about twelve miles. Neglect the coves but fish the rocky points and sides of the points. By doing so you will probably lose many jigs, getting them caught in the rocks, but you will catch more bass. Practice starting to reel in the moment the jig hits the water for two reasons. First, because if you don't your jig will sink and catch in a rock, second, because most fish strike then, although sometimes a fish will follow a jig close to the shore. You should also bring a supply of eel skins with you.

Slip a piece of one, slightly longer than the jig, over the latter; tying the wider part of the skin to the swivel on the upper end of the jig. Leave about two inches, at the hook end of the jig, free. This wiggles when reeling in and simulates a fish. While fish will strike a jig just as it comes from the store most men at Montauk cover the jig with an eel skin. Fish on the flood tide. A tide table will tell you what few days in the month tides are flood morning and night. If you can't go then fish the flood tide anyway, but not during the middle of the day.

Good bassin' weather is after a storm or when it is blowing hard, provided there is a good surf running, for bass seem to come close to the beach then.

The best time of year is from July first to November first. October being the best month. No guide is needed. The fish are there. It is up to you.



Little fish, get out of the way!



MISCELLANEOUS

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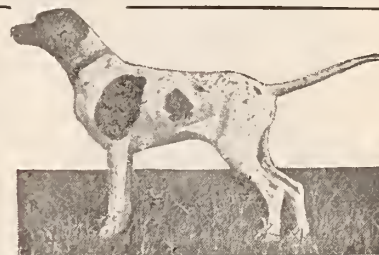
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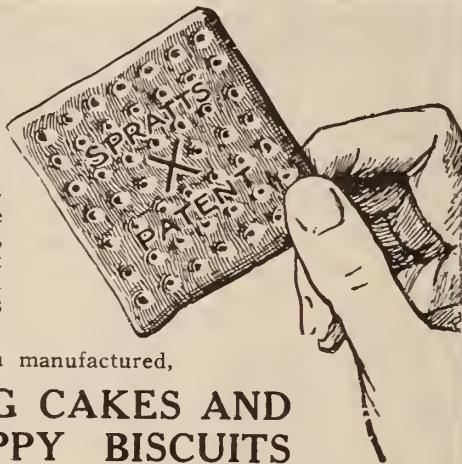
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**HOW TO FIND THE
NORTH**

(CONTINUED FROM PAGE 552)

his back in the snow, his rifle under his head and the little pack containing the untasted food thrown wearily aside in the knee deep snow. Why had not *he* retraced his steps?

ALL this is unnecessary and avoidable. As soon as you find that you are lost, *calmly* stop to think which side of the river, lake, or trail you are on. Consider about how far you could have traveled since leaving one of the above-named landmarks. Suppose, for instance, you are east of a river or logging road or trail you are familiar with. You have lost or mislaid your compass. It is raining or snowing and you cannot tell where the sun is. If your closest friend should ask you pleadingly, "Which is north?" you could not tell him with any degree of certainty. What would you do; look for the mossy side of trees? There is no wind blowing; if there was you could, by remembering the direction from which it was blowing when you left camp, easily determine the direction of the north pole and therefore of your camp. But not a breath of air is stirring. You're up against a hard one, unless you are in a hemlock country or know this little trick:

Take your knife blade and rest its point downward on the flat, smooth breech of your rifle, or even on your thumb nail. Select a place in the forest, preferably an open spot, where, if the sun were shining the rays of sunlight could reach the ground, uninterrupted by heavy growth of branches or foliage overhead.

Turn the knife blade slowly around and you will see the shiny reflection of the steel on the polished surface of the rifle, or if you use your thumb, on your thumb nail. Look at this reflection from every side, and you will soon find that, while the blade shows a reflection on three sides, there is one position in which it will throw nothing but a *shadow!* There's your clue—obviously the sun is on the opposite side. You know about what time of day it is, and therefore you can locate north. Try this out, practice it and check it with your compass on a rainy or cloudy day. I can vouch that it is well worth while. It served me well in Alaska.

The hemlock trick, which is pretty generally known in the north woods, is briefly this: The uppermost twig or bough on a hemlock leans or curls toward the east. Sometimes you will find an exception to this rule, but look at the tops of two or three hemlocks at once, and depend upon it, an overwhelming majority point east. Those that do not point east are rare, you will find upon investigation. If you don't understand why or how this can be so, consider the sunflower!



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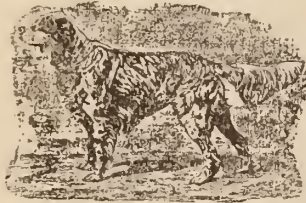
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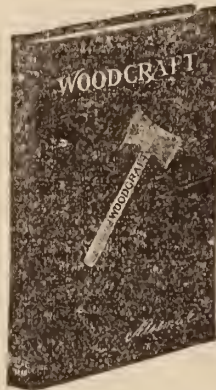
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State of New York, } ss.:
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Before me, a Notary Public, in and for the State and county aforesaid, personally appeared J. T. Wood, who, having been duly sworn according to law, deposes and says that he is the Business Manager of the FOREST AND STREAM and that the following is, to the best of his knowledge and belief, a true statement of the ownership, management (and if a daily paper, the circulation), etc., of the aforesaid publication for the date shown in the above caption, required by the Act of August 24, 1912, embodied in section 443, Postal Laws and Regulations, printed on the reverse of this form, to wit:

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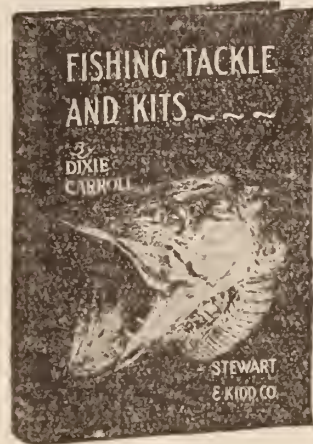
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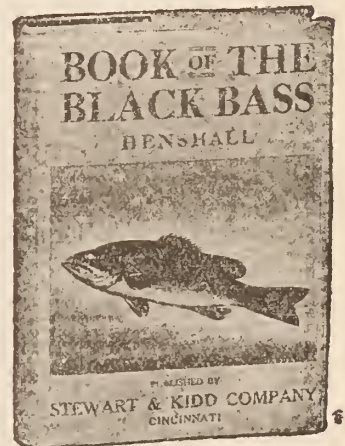
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MOOSE AND THE WAY TO CALL THEM

THE EVANESCENT SPIRIT OF FROSTY MORNINGS AND THE DIM LIGHT OF PINE SCENTED WOODS SUMMON THE MOOSE CALLER TO THE DELECTABLE NORTH COUNTRY

By H. A. P. SMITH, Vice-President, Nova Scotia Guide's Association

MY first remembrance of moose calling was some thirty-four years ago and at that time the art of successfully calling or enticing a bull moose to come out of the thick woods and expose himself within rifle-range in the open, by the coaxing imitation of a cow moose through a birch bark horn was supposed to be beyond the power of the white man and only practised by the Redman. We called the Indian guides hunters in those days. The more modern term guide has only been used in the Province of Nova Scotia in recent years.

How well I remember my first moose-calling trip. The procedure in those days and which still exists to a large extent, was to sit upon the top of the highest granite boulder in the vicinity while your Indian hunter stood up and after first clearing his throat, began to grunt in imitation of a bull moose, following with the cow call. As likely as not he pulled away at a refractory pipe between calls, while you listened for the answer. If the answering grunt of a bull rewarded his efforts there was at once a general scramble to take cover and noise enough to frighten the boldest moose that ever roamed the forest. Then, when the bull stopped to listen, the Indian held his call down to the ground and turned away from the quarry while he called softly in a low, agonizing wail, unlike anything on earth or sea.

We were all taught this manner of moose calling by the Redman and many so-called "callers" practise this method at the present time. Do I hear some moose hunter remark: "What is the matter with it?" Common sense will answer your question if only you reason a little. Did you ever know of a cow moose climbing up on a granite rock to call, and then when she heard the answer she

longed for, turn her back and stick her nose in the moss and whine? Personally I have known it to happen many times that a bull would sneak up and peek out at the caller, turn about and sneak away, or run and tear through the woods in fright. To illustrate: Some years ago my Indian was standing upon the top of a granite rock, about twenty feet high, calling, while I stood on the



The bull strides into the open and his reckoning is up

ground with my back against the boulder, listening, and enjoying the beautiful sunrise and longing for its rays to reach my position and warm the blood in my veins, for it was very frosty.

A slight sound caused me to turn my head and there about a hundred yards

away were the head and antlers of a big bull. He was intently watching my Indian and snuffing the air, trying to get the scent. I made a quick motion to get my rifle and in an instant and without the slightest noise, my moose had disappeared. A farewell glimpse of his round quarters as he trotted into a distant swamp was all I ever got of him! The first thing the modern moose-caller

looks for now, when selecting a place to call, is a spot where he can look in all directions without being seen by a sneaking bull. My friend, W. N. Boylston, of Princeton, Mass., a noted big game hunter and one of the very best callers I have ever hunted with, is exceptionally particular about his blind. There is a saying among our guides when chiding anyone for being too particular that "you are as fussy as Nick Boylston building a moose blind."

LET us suppose it is late September or early October and you and your guide are in the forest of Nova Scotia after moose. The westerly breeze which sprang up at noon is now dying out in puffs. The maple leaves no longer rustle, only those of the poplar are now making any fuss. Always the last to go to sleep are they and when you can detect no sign of life in them it is assuredly dead calm.

Let us walk out to our carefully prepared blind as we have finished our cold supper. No fire have we made to boil the kettle, not wishing to scent the country with smoke. Here we are. Do you notice these bushes and small trees

where the bark is rubbed off, and the small limbs twisted and broken? These are "hookings." Now just note how fresh they look. The air has not yet turned the bare spots brown. They are fresh, and a bull has been here not more than a few hours ago. We are right among

fresh "moose works!" You are rather pleased that you did not insist that I make a fire, are you not? Even if you had to swallow your grub with the assistance of a dash of brook water. Look at this place, where the moss and earth are scraped away and roots peeled. That is where the bull has smelled where a cow has stood and then pawed up the place with hugh hoofs. See, here is his track in the black earth as plain as if stamped with a die. A big track, too, although it does not always follow that a moose with big feet carries a big head. The largest moose with the finest head I ever killed left a rather small track.

Here is our blind. Just note how very carefully it has been prepared. The heart of a big bunch of white-wood has been cut out. All dead trash removed and the bottom carpeted with reindeer moss. Over this we spread our sleeping bags and sit upon them in comfort. In front of us is a small meadow with a narrow dead-water in it. On our right front a growth of alders juts out to a rather sharp point, with a spruce swamp behind them. To the left of the meadow and some fifty yards from the still-water another sharp point of alders, backed by a mixture of spruce, fir and maple, affording thick cover and also feed.

Behind us lies a small lake. It is the surest moose bet you ever made that if we see a bull he will come out of one of the two points on our front and step across the still-water to the opposite one, pausing to turn his head and look in our direction where he has located the call. Can some old moose caller tell me why a bull moose loves to walk through alders? He likes to stop and hook them, too, twisting the stalks with his antlers; the penetrating sap of which dyes them to a rich chestnut. The idea I give in explanation is that he drags and brushes the moose-flies from his belly and between his long legs. Every moose killed in September or early October will be found to be infested with these flies. We will not call tonight. "Why not?" I fancy I hear some one remark, and my answer is: Because we want to kill a bull, and our chances of doing so will be infinitely better in the morning. Judging by all appearances it looks as if a frosty morning would greet us on the morrow. The sun, just setting, looks clear and, although it is hard to keep the horn down, yet we desist, "What did you bring me out here for?" you whisper. An easy answer again: To listen! Just suppose we call and start a bull tonight, he will, in all probability, wait until darkness screens him and then sneak out where we can't see him, keeping us up all night playing hide and seek with him for fear he will steal up to our blind and, catching our scent, depart in a hurry. There is a way to fool these cute ones, but as it was largely responsible for the close season in Maine and is never practised here, I will not give the trick away; although it

really is a great temptation for me to do so.

Bulls which have been lying up all day in the thickest, wettest swamps will begin to move about sundown searching for the cows. If there are ridges in the vicinity, they will be sure to travel up to the tops from where they can better hear the luring call of the cows. Here they will stand, with their great mule ears slowly moving, listening for the mating call. All is still save the occasional hoot of a great-horned owl or the soft quacking of a flock of black ducks from a distant still-water. The woods appear absolutely dead. It has been a hot day and moose are not moving yet. When the night air cools the summer heat left by the sun we will hear them, if there are any in the vicinity. Swamps, barrens, bogs and ridges with granite boulders comprise our hunting grounds, with lakes

entirely if only a hundred yards or so distant!

Presently from the very heart of a swamp to our right and not more than four hundred yards away, a cow bawls; "Ah—Ah—Ou-wahah, squealing it out in a long drawn sigh. Even if you have never heard one before you know at once it is a cow moose. There is no sound heard in the forest like it, and—she has a bull with her, for we now distinctly hear the thrash of antlers on the bushes and then his "buck"—"buck," as he grunts to her. Now she begins to move away and is not at all impressed by her mate's coaxing. That whining, resonant call of hers is not the note you want to copy and repeat through your moose call. It is the *mating* call that you should study. I speak of the amorous cow that is tired of being alone and wishes to take a partner for the fall. It is almost impossible to describe this sound in writing. Some morning or night you may hear it and in response the anxious grunts of a bull as he pushes his way straight through the forest towards it. When this opportunity comes to you, study the call and if you can imitate it through your horn, you will be a moose caller who will get results. Have you ever tried to sit perfectly still any length of time and listen? If not and this is your first attempt, you will find it extremely nervous and hard work, especially if you are excited by the noise of big game.



Moose called and shot in Digby Co., Nova Scotia

and streams intermingled and separating them. The sun has disappeared below the horizon for some time and nothing has so far attracted the trained ear of your guide. Such noises as the hoot of an owl, the slap of a beaver's tail upon the glassy surface of the lake, quacking of ducks, or the boom of a bullfrog all go unnoticed by him. He hears them but does not *notice* them. You begin to wonder if your hearing is the more acute! Suddenly a smile lights up the guide's countenance. Cocking his head to one side he concentrates in the direction of a long spruce swamp off to the left of us. You have not heard a thing over there, but his trained ear has caught the "lock"—"lock" of a bull moose a long ways off. Even if you had heard him at that distance there would be nothing in the sound that would have led you to suspect it was a moose. That far away "lock"—"lock" would sound very differently if only a half mile away, and again quite differ-

JUST here let me advise the tyro to wear soft clothing, and never anything like the canvas clothes that you may be offered by the clerk at the sporting goods store. Forestry green is a good color. Get wool clothes which will be fine for still-hunting and for any purpose where noise is a disadvantage. Nothing will aggravate your guide more than a hunter with a noisy suit of shooting clothes on. Every movement will make a noise and when scraped against the bushes or rubbed on the granite boulders they will make enough racket to frighten a moose fifty yards or more away. While on the subject of clothing I may say that there can be nothing better for your feet than cowhide, oil tanned moccasins—the low kind that lace up to the ankle. Have them without soles so that you can walk in silence and *feel* the sticks through them with your toes. Shod in this manner you will avoid breaking sticks which you otherwise would do. Perhaps all these details may weary the old moose hunter but it will be well for the novice to know these things. It may mean success or disappointment.

Well, we will go to our camp or tent now and turn in. You see our little trip out here has been the means of locating two bulls. You drop off to sleep as happy as a baby with a basket of clothes pins. Mornning comes and by the first streaks of light in the east we are ready. It is very frosty and unpleasantly cold. There is always a sort of shiver that



Beginning the call

goes through nature at this hour in our North Woods. It is a grand moose-calling morning. Not a breath of air stirs. A short walk through the frozen hard-hacks and over the mossy ground and we are again in our blind. The guide has brought your sleeping bag and you sit upon it and take an easy position. Let us listen a little while and try to hear our bulls we located last night before we try the call. Presently the east begins to pale and soon we distinguish objects. How weird things loom up! You can almost swear that old upturned root at which you have been gazing so intently is the head of a bull moose. It certainly seems to move! The longer one watches an object in poor light the more it looks alive. Presently the rising sun makes everything clear. The day is born. Your guide picks up his horn and, facing in the direction of the long swamp where we heard the nearest bull last night, and with studied care he breathes through the birch bark to warm it as he fits his mouth to the slender end. No musician ever takes greater care preparatory to the performance of a difficult solo through his wind instrument than the guide does as he makes ready for the first call. Each hand has to be placed just right. Lips about the muzzle exactly to suit the performer. You note each move as you hold your breath for the challenge, thinking at the time what a pity to disturb the deathly silence. Lowering his call towards the ground and again raising it, out goes the long quavering mating call, splitting the frozen air as it caroms from rock to swamp and up against the ridges. A masterly performance it is! All again is silence. You wonder if ever you could learn to imitate it. Listening more intently than ever now, you can distinguish the rumble of a brook in the distance, swelling, dying, swelling. If your guide should tell you that the tiny brook you stepped over yesterday was making all that noise and fuss you would not credit it. Far within the virgin forest here, you miss the song birds. But there *are* birds and here come the robins in flocks, lighting upon the

dead pine trees, leisurely migrating south, loth to leave behind the luscious blue-berries which grow nowhere so luxuriously as in this barren wilderness. Yes, here are some flickers migrating along with the robins. These birds seem to be great friends and travel south together in perfect harmony. A moose bird (Canadian Jay), the bird of many names, flits from pine-top to pine-top with slow, lazy, noiseless flight. Quacking of black ducks we hear over in the rushy lake, some half mile away, sounding, in the clear thin air, as if close by.

Suddenly a sparrow hawk shoots into sight, causing much commotion among the robins and flickers which dart hither and thither with frightened screech. All disappearing over the nearby knoll and again there is perfect silence. You are admiring the myriads of spider webs stretched from twig to twig and from stunted spruce tops. The sun's rays bringing every minute thread into relief as they glisten on the frosted nets. Bog, bushes and tree tops are festooned with the wonderful network. The very surest indication that the day will be fine.

Twenty minutes have passed since the guide shattered the silence with his birch call and again he sends forth the pleading imitation of an amorous cow. Just as he takes his seat beside you and almost before the sound of horn and echo in conjunction have died away, the answer comes. Bur-wah', ka-buck! Louder and louder sounds the answer. Straight for us comes the bull, grunting at every step. Suddenly the answers, that have sounded so welcome, stop. Not a sound can we hear. You begin to wonder what has become of the bull. And so we sit for some time (hours you think) with straining ears. Like a pistol shot a limb breaks. "That's him," the guide whispers, and then with low, contented grunts, keeping time with every stride, on he comes. Hear his antlers drag the bushes? Striking one upon a dead pine it echoes loud and hollow—indicating palms of generous width.

Something now seems to interfere with your sense of hearing! It is the blood pounding in your ears. The nearer *your* moose comes the colder you get. Shivers



The end of the call

run and play all over you. Your throat is dry but you try in vain to swallow. Presently your eyes catch the twitch of a maple-top and at the same time the glimpse of a yellowish antler. You can now hear the "swish," "swish" of the hard hacks, as long legs are thrust through them. A big black form comes slowly into sight, out from the point on our right. The moose takes a few strides into the open and away from the friendly shade of the bushes, smells an old moose trail that winds across the meadow and, raising his heavy antlered head, looks towards you. His reckoning is up. Just to keep him steady your guide gives the bull challenge, "O' Wach," and whispers: "Shoot!"

You no doubt have read all about how ungainly a moose is, but somehow this one, as he stands out there in the frost covered meadow, with head erect and the sunlight glinting from his polished antlers gives you the impression of magnificent strength and majesty. Your rifle sights wobble all over the bull as you try desperately to align them upon his

(CONTINUED ON PAGE 614)



On the long portage into the moose country

MY FATHER'S LAST SHOT AT DUCKS

ANYWHERE FROM ORTLEY'S TO TOMS RIVER FATHER SAID HE COULD GET THEM WITH HIS GUN AND HE CLOSED HIS SHOOTING CAREER WITH AN ACE

By WIDGEON

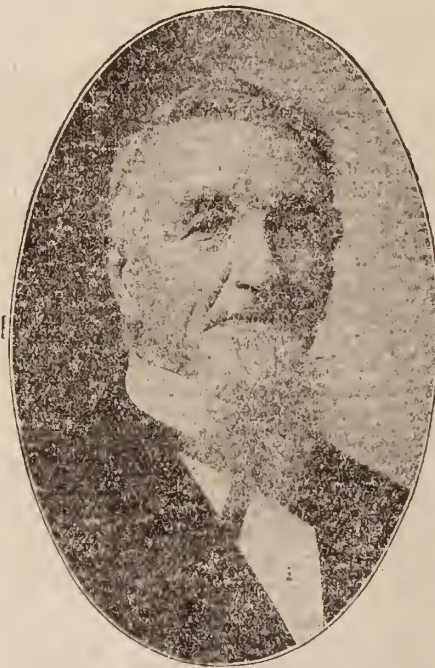
AS father and I descend from the train at Ortley's, we found Peter Johnson waiting for us on the platform, with his honest, rugged countenance wreathed with smiles. After a hearty hand shake, he tossed my duffle bag to his shoulder, as if it were a feather, and taking one of the gun cases in his other hand, led the way down the track toward his cozy cottage. As I brought up the rear, I could but note the two men walking before me. My father then in his eighty-third year, walked as erect as most men of fifty, with his broad, square shoulders, his narrow waist and hips, six feet one inch of bone and sinew. In his prime, his was the figure of a Roman gladiator. Peter was a Civil War veteran, about sixty years of age, and but little short of a giant in stature, rather coarse in build, but very broad and heavy. A genuine "Two-Fisted Man." What a pair they made. They do not breed that type of men these days.

Arriving at the house, and after greeting Mrs. Johnson, we went to our room, and soon came forth clad in battle array. Walking over to the landing, we unlocked the boathouse and soon, with Peter's help, had the sneak-boxes in the water. The decoys were then overhauled, and placed in the racks on the stern of the boxes; the oars and other appurtenances placed in them, and we were ready for the morrow. As we walked back to the house, we talked over the shooting prospects with Peter. He said there were very few ducks in the bay, and he thought our chances were very poor, but the shooting had fallen off so much of late years, that we were not surprised at the report.

As we sat around the stove that evening, we talked over the good old times, when the game was plenty, and the Johnsons had first come to the old house at the beach, with their six children. How time does fly. Those children were men and women now, and all had left home. Then Peter grew reminiscent, and told tales of his three years service in the Civil War, and I said to him: "Peter, why have you never applied for a pension?" Stretching forth his great hands he said: "Never, while I have my health and strength, and these to work with. Taking a pension would make me feel like a pauper."

EATING our breakfast by lamp light, the next morning, we soon walked to the landing, and entering our boats, rowed to Stooling Point, arriving there before sun-rise. Our decoys were soon placed, our sneak-box pulled on the meadow bank, and well covered with reeds and duck grass, then taking our places in our boats, father who was an inveterate smoker, lighted his cigar, and declared himself ready. A moderate

breeze was blowing from the west, and it was not cold for October. Slowly the sun rose from its briny bed, and cast its golden rays over the dancing waters before us. Very few ducks were flying. Presently a single duck came in from the southwest; a drake mallard. He paid no attention to the decoys, and flying very low, disappeared behind the reeds along the shore south of us. Father said: "I believe he has gone on shore, on the south side of the island. You walk around and scare him up. You may get a shot, and if not, he may come to me when he comes out." So walking



Widgeon, Senior, at eighty-three years

back from the shore, I made a wide detour. Reaching the meadow bank, I came back as quietly as possible. Just at the water's edge, when from a little notch in the shore, up he sprang, at about thirty yards distance. His green head glistened in the morning sun-light, as I drew a quick bead on him, and he dropped dead at the report of the gun.

When I arrived at the blind, father held the drake in his hand, and smoothing its beautiful plumage, said: "I always like to kill the first bird in the morning. I believe this will bring us good luck."

Before entering the blind again, I stepped out among the decoys, to re-arrange them a little, where we had placed them too thickly in the early morning. As I walked back toward the meadow bank, I stopped in front of the blind to look it over; then adjusted a reed or a whip of duck grass here and there. This is one of the great essentials in the fine art of duck shooting: To make your decoys

and blind look perfectly natural. Your blind must harmonize in color and structure with the shore line, without a discordant note, in these days of educated wild-fowl.

Father, still enjoying his cigar, sat watching me, while I arranged everything to my satisfaction. "Well," he said, "I see you have not forgotten the lessons I gave you as a beginner on this very point, when you were a boy, over forty-five years ago. Who would have thought then, that we would still be shooting together. Just think of the changes on the beach since that time; the railroad, automobiles, breech loading pump and automatic guns, fixed ammunition, etc. No wonder the game has almost disappeared. Certainly there were one hundred ducks fifty years ago, where there is one now. God has been good to me, and permitted me to enjoy the sport at its best, and you will have your share, and perhaps your sons may see a little, but your grandsons will hardly know what a goose or duck is, unless they see them in a museum."

ABOUT four hundred yards from the point, along the westerly side of the channel, a large flock of crow ducks were feeding, making the water fly in their diving and splashing, uttering the while their peculiar feeding cry "cruck, cruck." As father sat watching them, he said: "Here comes another duck hunter, and I guess he is after those crow ducks. Looking up the bay, I saw a large bald-headed eagle approaching. As he came nearer, all the real ducks in sight made a quick departure, and presently the crow ducks saw him, too. The main body of them took wing, making a great splattering roar as they rose, for they really run swiftly, for several yards on top of the water before rising in the air. A few, however, sought safety in diving. The eagle gave his attention to these, hovering over them high in the air, while they were frantically diving to escape him. Having selected his bird, he made a feint to strike, and the duck instantly dove. The eagle then dropped a few feet nearer the surface of the water and as the duck arose, the eagle made another feint, the duck again diving, and the eagle again coming lower. This manœuvre was repeated a number of times while the duck's dives became shorter and shorter, for the eagle gave it no time to breathe. Finally the eagle hung on extended wings, about fifteen feet above the doomed bird, then one more feeble dive, and the exhausted crow duck popped up like a cork. Gracefully the great bird swooped down, and grasping its helpless victim in its powerful talons, rose in the air, and swiftly winged its way to its eyrie in the distant pines. Twice each day during our

stay, this eagle or its mate, took toll from this hapless flock of crow ducks, and always secured its meal in the same manner.

About an hour after the eagle episode, a single mallard came to us from the south, and lit some distance beyond the decoys, where he swam around for some time, but would not come in. Finally father said: "Neil, you try him sitting, and if you don't kill him, I will try him when he gets up." I was shooting a great favorite of mine, a twelve-bore Baker, that I had built to order for my eldest son in 1895. He, a boy in knickerbockers, was just learning trap shooting, and the gun was a combination trap and game arm. Father was shooting an eight-bore, weighing thirteen pounds, a veritable cannon. Taking a very careful sight at the distant mallard, and giving the little gun several inches elevation, I fired, and to my great satisfaction killed the drake stone dead. Father remarked that I had a wonderful little gun and said he could have done no better.

We now had two fine ducks, and from time to time added another, until our score was eight, then about an hour before sun-down, seven came to us, four black ducks and three mallards. They acted well and father said: "Let's see if we can each make a double." They came in low, right over the decoys, and as we rose to shoot, they flared up, making a dandy shot. I raised the sight of the little Baker, well above the head of a climbing mallard, and at its crack the bird wilted in the air. Quickly turning I killed a black duck with the second barrel. Now father was a man who never indulged in profanity, except under great provocation. As he covered his first bird, the shell snapped. With an explosive remark he pulled the other trigger, and as the cannon roared, the bird fell clean killed. This unfortunate mishap put father a little out of humor, and he lighted another cigar, and sat silent for some time. Finally he said: "How many birds have we?" I told him the last round made eleven. "My!" he said, "I wish we could make it an even dozen." The sun sank in the west and the red glow was slowly fading out, when with a swish of wings a duck was silhouetted for a brief instant against the failing light. I swung my gun up quickly with a snap shot, and missed clean. Then father's cannon boomed and the duck (another mallard) fell with a splash among the decoys, thus wiping my eye in great shape, and putting father in great good humor. This made a dozen splendid birds and we took up our decoys and started for the house. On our arrival, Peter expressed great astonishment at our success and we had a happy time that night around the old fire-place.

THE weather continued pleasant, and could not be considered good for duck shooting. Still we continued to add a few to our string from day to day. We had noticed a flock of about fifty of the smaller broadbills, feeding in the channel. They seemed to have formed a habit of taking wing, just

after sun-down each day, and flying away in the cove towards the landing, making a circle, and coming out again along the shore of Stooling Point, just out of shot for us, from our present blind. After this had occurred several times, we determined to give them a surprise, so one afternoon we moved our boats around, to what we thought would be the proper position, put out a few decoys, and waited for sun-set.

The channel came quite close to the shore at our new blind, and several grebe or hell divers, as the baymen call them, were feeding in front of us. Presently one of them saw our decoys, and becoming very curious, swam in to see what it was all about. He edged in cautiously towards the outside decoys, nervously jerking his head from side to side, then stopped and gave a little chirping cry. Receiving no reply, he swam in a little closer, ruffling up the feathers of his neck in a very angry manner as he did so. At last, apparently in a perfect frenzy of rage, he swam up to the nearest decoy and gave it a vicious peck in

the result would have been if they had come earlier, and father could have given them the contents of his cannon. So ended our last full day. We decided to try them until eight o'clock the next morning, which would give us ample time to put all things away, and be ready for the train at eleven.

WE were on the point early next morning but not a duck came our way. The time passed quickly. Presently father, looking at his watch, said: "We have just five more minutes." "Yes," I said, "and here come our ducks." Head on from across the bay, as they drew nearer, we saw they were a pair of black ducks, flying not over five feet above the water. "Father," I said, "'guess we better raise on them and make them flare up, to make us a nice shot." So when they reached the outside decoys, we rose, but they did not flare. This surprised me so, that I took a quick shot at one, head on, missed it clean, then threw myself backward and shot at it again, as it passed over me,



Widgeon and some ducks he hung in Nature's cold storage — the shady side of the shack

the side. It must have jarred him for he staggered back, and swinging his head to and fro, had such a look of complete astonishment, that father and I laughed heartily, when he instantly dove and disappeared. Patiently we waited for the broadbills, but they did not come. The sun had long since set and it had become too dark to shoot, when father said: "Neil, I guess they have fooled us." I answered: "I think so," and started to lay down my gun, when with a roar of wings, a big flock of broadbills came out of the darkness, passed over the decoys and were gone in the gloom. Throwing the gun to my shoulder, I fired one shell into the dark mass before they disappeared. I heard the splash of falling birds, saw the flip of a cripple's wing on the dark water, shot the other barrel at that, and then over board to see what I could find, for broadbills, unless shot dead, "stand not on the order of their going, but go at once." Groping around over the ink black water, I gathered three ducks, delicious little fresh water broadbills. How many I shot down, I will never know, nor what

not ten feet from my head and missed it again. Father did not shoot as they passed over, but held his fire. After they had passed behind us, they separated and swung back in a circle over the water again, one to the right the other to the left.

As the one to father's left came back over the bay, it was a very long shot away, but he put up the big gun behind it, and slowly swung it ahead. He dwelt so long, that I thought he never would shoot. Then the cannon thundered, and the duck's sleek head dropped back, the strong wings folded, and it dropped like a plummet; shot dead in the air, and at a *tremendously* long distance. With a broad smile on his face, father turned to me and said: "Neil, anywhere from here to Toms River I can get 'em with this gun."

Dear father, it gives me a curiously warm glow around the heart to remember that he should have ended his shooting career with this magnificent shot, perhaps the best one of his life time. For, while he lived to the ripe old age of eighty-eight, he never fired a gun again.

IN THE NEW ALLENWATER COUNTRY

YOU WILL APPRECIATE BETTER WHAT THIS FINE ONTARIO HUNTING COUNTRY HOLDS WHEN YOU FIND ONE OF THE AUTHOR'S OLD TIN CANS

By M. L. GOCHENOUR

WITHOUT doubt the most accessible of the virgin big game country in Ontario lies between Hearst and Superior Junction on the Transcontinental line of the Canadian Government Railroad. It takes more daylight than there is in an October day to ride on the train between these two points, so you see there is plenty of country to choose from, once you have decided to spend a vacation in this vast North Land. When I decided during the early summer of 1918 to spend the following October, or most of it, somewhere in this region, I wrote Mr. F. C. Armstrong, Chief Sportsmen's Guide for the Canadian Government Railways, with offices at Cochrane, Ontario. Our correspondence extended throughout the summer and early autumn of 1918. The result was that I chose the Allenwater region of which little was known by sportsmen, as it had been hunted but the previous season, and that only near Allenwater trading post. Armstrong recommended Ed Troke, trader, at Allenwater, as the source of more information. Troke proved worthy of Armstrong's confidence. Whatever he tells you can be depended upon. Both Armstrong and Troke advised me to come October 1, while the moose were yet in the water and bear were feeding upon blue-berries prior to dening up. I determined to follow their advice, but owing to unavoidable delays October had nearly passed from the calendar when I stepped from the train at Allenwater, just at daybreak one crisp morning when the cutting chill told of winter's near approach. I had written Troke that I was coming alone and preferred a white guide, for few of the Allenwater Indians can speak English and are uncommunicative companions before the campfire at best, though many are good woodsmen. The night before "Boomer" alias Thomas F. Lee, a Canuck prospector and trapper, had come to the trading post for supplies and Troke at once engaged him for me. They had worked late that night filling my order for a "grub-stake" and supplementing it where they thought wise. Between the three of us nothing was forgotten. They had everything packed in two egg cases—the most convenient sized and shaped box for a tump line yet made—and had them with the canoe, tent and folding campstove at the station, intending to load all into the baggage coach and take me on to Harvey, only one-half day from Boomer's main shack. The conductor would not permit their plan to materialize—because Harvey was not a regular stop. This meant two days' precious time and hard work paddling and portaging to reach the country

PRACTICALLY all the best hunting country around Allenwater can be reached by canoe with short portages. Our longest portage was less than a mile. It is a height of land region and none of it is impossible to negotiate like the mire and lob-lollies, so often associated with moose hunting. Where there is not sufficient water to afford good draught for a canoe, the footing is solid and the going exceptionally good for a new country. It is a picturesque region, consisting either of good, clear open water or solid land, mostly rock, of sufficient elevation to make good stalking possible. Finally—and what is most important—the game is there. The old natives informed me that this is the best caribou country between Winnipeg and Quebec, altho moose have frequented there only during the last eight or ten years, and the advent of deer has been even more recent.—[AUTHOR'S NOTE]

into which Troke and Lee had planned for me to hunt. The water route requires one day north of the track and one south, doubling back and recrossing the railroad about twelve miles west of Allenwater. In consequence, both men were in an ugly mood toward the Canadian Government Railway when they came up to me, seated on my duffle bag, as the limited rumbled on toward Winnipeg. They quickly told of their spoiled plans and we carried the canoe and outfit to the shore of Lake Kawawegama, about sixty rods distant. It was a mile and a half to Troke's trading post where we had breakfast of moose steak, pan cakes and other good things galore—none of which got more than a passing glance, however.



The author and his fine trophy

By nine o'clock my traveling clothes were carefully reposing, with everything I felt could be dispensed with, in my suit case under a bed in Troke's comfortable cabin. Cheered by the jolly trader's good wishes, we shoved off down the Allenwater River, reaching Barrington Lake portage by noon. The first night we pitched the tent at Heathcote Lake portage, very tired from bucking strong head winds all day. It was not yet dark when all was ready for the night and Boomer paddled the canoe noiselessly around the shore of several little bayous on upper Barrington Lake, but we were not rewarded by the sight of any game.

Next morning on Heathcote Lake, we were favored by still water all the way to the Canadian Government Railway track, and made up much of the time we lost the day before. As the sun rose over the rocky bluffs, carpeted with caribou moss that form so much of the shore line of that wonderfully beautiful lake, I felt repaid for my two thousand mile journey, and every stroke of the paddle revealed virgin scenes, seeming to surpass each other in natural beauty.

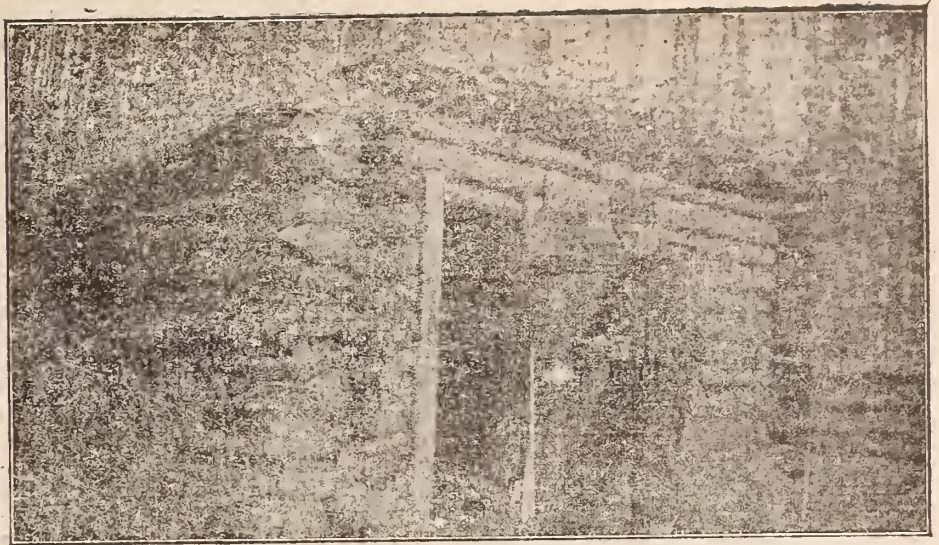
We reached the railroad before noon. No game was seen north of the track. The Canadian Government Railway crosses Heathcote Lake at the narrow point on a fill. It was beginning to rain when we completed the short portage over the track, but we kept on up Heathcote Lake to the inlet, a small creek only a few feet wide in places but full of rapids and swift water. "Frogging" up this creek a mile or so and unloading to make a two rod portage around a new beaver dam, while it continued to rain vigorously, took all the joy out of the morning. A few hundred yards above this dam the flooded outlet of Elbow Lake spreads out into a flat, grassy marsh. Here Boomer had prophesied moose to spare. Sure enough, we saw where three large moose and two smaller ones had crossed the shallow channel and climbed the east bank only a few moments ahead of us. There was no time to follow them if we were to reach Boomer's shack that night, although the wind favored pursuit. Continued rain made us glad we had kept on our way, for we arrived at the old shack at dark. It rained all night and did not slacken until noon the next day. About one o'clock the guide decided to make a short portage to Richan Lake and paddle around the low shore line of this lake where he said we were sure to see moose. The bush was too wet for land hunting. I never saw more promising country, and earlier in the season I am sure his prophecy would have held good, but although we saw no game on this little trip we noted some signs of

moose. Landing at an old tote road leading to a little nameless lake, we followed the fresh track of a moose along the full length of the tote road—about two miles. Just before nightfall we spent an hour or more in a big blueberry marsh that would certainly have produced bear two weeks before. We saw fresh caribou signs in this marsh and came upon the trail of one large bull caribou but did not have time to follow it.

A WELCOME fall in the temperature greeted us next morning. I was tired of fruitless water hunting and argued that the moose had left the water, so the guide conceded we would try a burning. Eight o'clock found us at the rapids where Eight-mile Lake empties into Corrie. Two short portages are necessary to get a canoe to Eight-mile outlet and Boomer suggested that he would bring the canoe over these while I went ahead over an old tramway which formed a part of the old freight route from Surgeon Lake to Lake Nipigon in the days before the railroad was completed. I had gone but a few rods when I saw three partridges. They were very tame. As I stood watching them, a brush snapped ahead and I set the trigger on my gun, thinking to make the first shot count most if the breaker of the twig proved a buck or a bull. Neither showed up and I tiptoed over fresh deer and moose signs, to the old dam where I was to meet the guide, forgetting in the thrill from so much fresh sign, to release the set trigger. Boomer was waiting, somewhat nervously to begin the day's hunt he had planned, through a big burn on the southwest shore of Eight-mile Lake.

Conditions were perfect for stalking except that the ground was bare. Snow flurries backed by a strong wind from the direction we proposed to hunt, alternated every few minutes with struggling sunshine. If there was any game in the promising country ahead, it would have to see us to take fright; scent and hearing were useless this morning. Within a stone's throw of the old dam we came upon droppings that were yet steaming, in a burned spruce swamp. This sign made us as cautious as it was possible to be, stepping through mud and water nearly to the top of our shoe packs and at the same time trying to avoid snapping all the little limbs of the small dead spruce which seemed to protrude everywhere.

A large cedar had rotted off just above the ground and fallen in a way to afford good and quiet going over the deepest part of the "coolie" through which we were making our way. I had walked the length of it and stepped up on the mound made by its roots, which had not upturned when it fell. From this point of vantage I was "taking my goin's ahead"—to borrow the guide's phrase—while he came splashing through a few rods behind and a couple of rods to my left. Perhaps a hundred yards ahead, the "coolie" ended at the base of a large, gently sloping hillside whose top was five or six hundred yards from where I stood, with a semi-ridge about half way up.



Boomer had a little shack on Mad Lake

The wind was blowing directly toward me from the top of this hill. The entire slope had been burned a few years before and fallen twisted trees, that had been giants in their day, lay charred and bleak in that familiar desolation which every big game hunter has seen.

As I stood there meditating upon the awful destruction caused by the great fire that had one day raged there, by someone's carelessness or criminality, my eye caught a slight movement, perhaps one hundred and twenty-five yards ahead and to the left of my course. There was the outline of the hams and rear part of a large dark grey animal, standing in a thicket of burned jackpine. The fresh droppings we had just seen and the grey color of the animal, suggested caribou to my mind, although I had never seen a caribou in the wild. The identity of my new acquaintance was quickly disclosed for the next moment some noise made by the guide, laboriously working his way through on my left, did the trick. The animal started to trot, quartering away from me, toward the right and the top of the big hill. When I saw the huge basket-shaped antlers they were suggestive of grandfather's hickory arm chair and I wanted them with a hunter's desire.

The gun came to my shoulder as if by instinct but went off at the same instant owing to my wool glove touching the hair trigger, which I had forgotten to release. This premature discharge did not strongly tend to quiet my disconcerted nerves. When I was ready with shot number two, the moose was traveling at a lively trot through the thickest clump of cedars on the slope, but I took a chance. At this shot the bull stopped. He had not seen me but was running away from the guide. As he stood there looking back I could see only his nose and the movement of his stubby tail. The remainder of his body was hidden by a maze of dead trees. I think he stood there till he located me as well as the guide. Probably, the movement of working the bolt to get the third shell in the chamber gave him his cue. At any rate, when he started again he swerved from the quartering course and left in earnest, going directly away from me—straight up the hill. This time he had concluded that whoever we were we could not rightfully claim kinship or friendship with him, and he lost no time increasing the distance between His Mooseship and us.

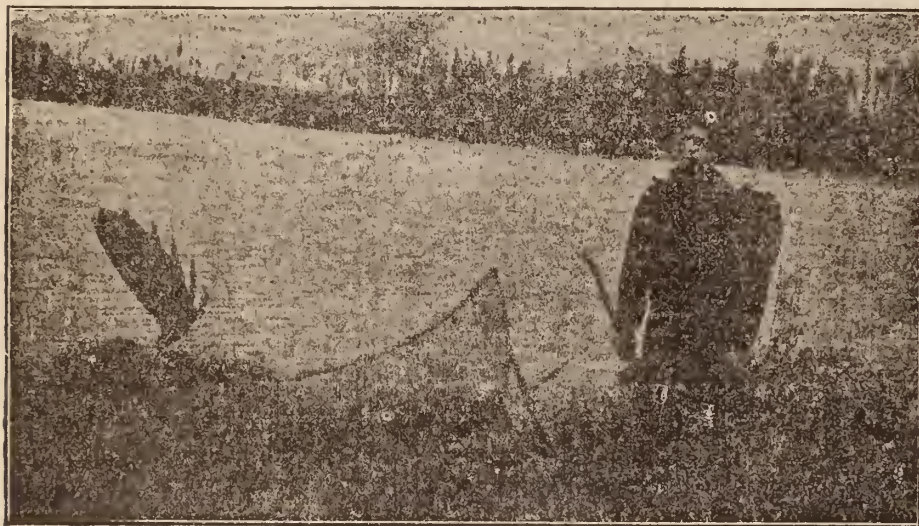
It seems incredible that so large an animal can cover ground as fast as this



Deer, fish and moose supplied the larder with plenty of good food

bull made his way in no uncertain strides through the tangled mass of burned trees on that hillside. Somehow, I grew more confident, now that it seemed I would have shooting till the moose reached the top of that big hill, so I waited till his course had taken him above the line of tops of the clump of small trees behind which he stood until he located me. Then I had as pretty a straight-away, up hill shot as any hunter could wish at a distance of about 175 yards. I missed!

BY this time Boomer had come up with me and climbed up behind me on the cedar root mound. For the first time he saw the bull and taking in the situation with the rapid brilliancy of an Irish mind, offered these comforting words: "Don't miss him, "Gosh, he's a damn fine bull!" Just as if I did not already know that much! Those fine golden brown antlers on the head of that magnificent, sleek looking bull, going up that slope through the snow flurry with stately stride at unbelievable speed, looked too good a prize for me to lose.



On the way out Lee paused and faced the camera

I had just forced another cartridge home, determined to be even more deliberate this shot, when the bull, now a full 200 yards away, suddenly turned to the right, swinging almost directly broadside on, as I afterward learned, to obtain the cover of a little ravine which extended diagonally across the ridge. The bull had no sooner changed his course, when my gun spoke for the fourth time. Pumping in the fifth shell, I stood ready with my last hope, but my quarry was gone. "I saw him go down with the last shot!" Boomer ventured cheerfully. Insisting that I could hear the bull running and that he had merely crossed over the brow of the first ridge, I waited for him to cross what I supposed was a dip in the hillside and show himself again, going over the top of the big hill—all the while cursing my luck, the set trigger and appraising my marksmanship in no uncertain language. The breaking of dead limbs, like the noise of a bull running, continued, but the guide insisted that the moose was down and trying to get up. With more haste than caution we crossed,

from where I had done the firing, toward where the moose had disappeared. It was necessary to travel through the coolie a hundred yards or more and perhaps an additional fifty on the dry slope before we were on ground sufficiently elevated to see any considerable distance. When about fifty yards from where the bull disappeared, we saw a big palm waving above the tangled windfalls of the burn. Not until then was I convinced that the guide was right.

In the meantime, I had re-filled the magazine and now approached carefully. About twenty-five paces away from the big fellow I climbed upon a trunk of a down pine four or five feet from the ground to get a better view. The Bull's hind feet and left front foot, were under his body and his right front foot extended straight in front of him seeming to support his weight, apparently the position in which he had gone down in a crash at his headlong gait; just the distance from where the bullet struck that the impetus of his speed had carried him. Another rod and he could have gone com-

while the two massive front spikes, strongly suggesting huge crawfish nippers, came out in front almost as far from the base as the great palms, each 12 x 32 inches, extended behind and had large brown beads, covering spikes and palms nearly to the tips of the points. Each antler measured thirteen inches in circumference at the base and for massive, consistent symmetry, left nothing to be desired. Evidently the bull was not old, for his perfect bell measured ten inches and there was not a scratch on the face or ears—which are so often split and scarred from fighting.

We were back at the shack with the head, the heart and a lobe of liver by eleven o'clock. The afternoon was spent quartering the meat and getting it into camp. At the time I purchased my gun the summer previous, I had my misgivings about the 129 gr. bullet being heavy enough for moose. All my doubts were set at rest when we opened the carcass of this bull. Only my fourth shot had taken effect. The bullet struck on the right side six or eight inches above the heart and perhaps half that distance back of the shoulder, just beneath the backbone where the copper jacket went to pieces, tearing the underside of the backbone frightfully and making hamburger of lungs and liver. Of the bullet, only three pieces of the copper jacket could be found, and they were two or three inches apart, deeply embedded in the crushed part of the backbone.

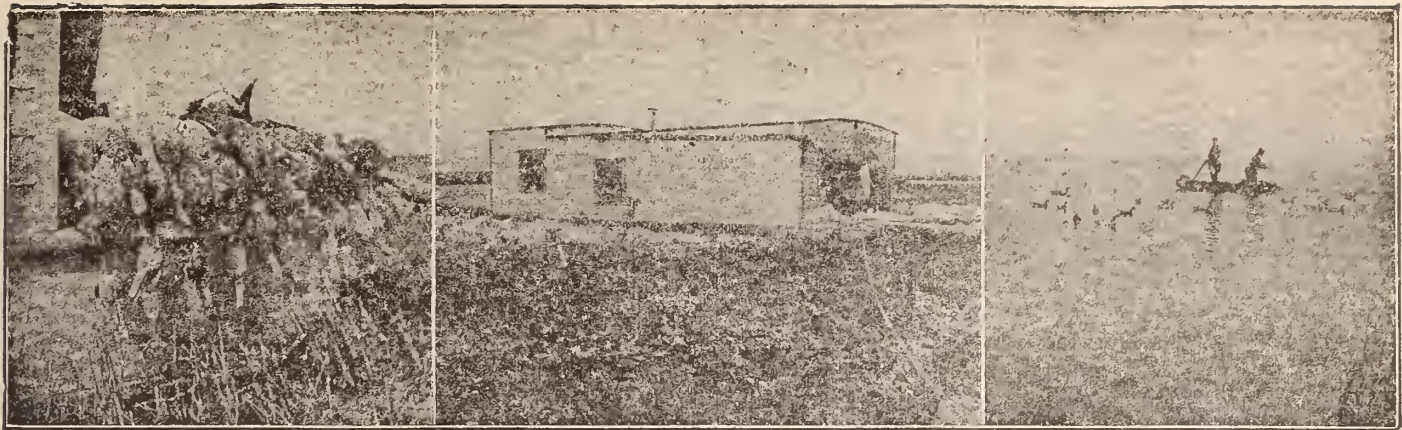
On the paddle back across Corrie Lake that evening we took three pickerel of about two pounds each and a ten pound Great Northern pike. It had been a full day and after a supper of moose tenderloin, et cetera, sleep came easily. The dishes did not get washed till next morning.

THERE must be an end to all hunting stories and this one has already grown tedious enough, but to those of us who are so fortunate as to have these experiences they never end but live on and on in memories, ever growing sweeter. I could detail to you how the next day was spent cleaning the head and preparing the moose hams for the long journey home; that fairyland trip the following day to Mad Lake—a height of land lake, clear as the air itself; how at Lake Seseganaga portage that day, while Boomer "biled the kettle," made toast and warmed up the slices of moose heart and tongue over the coals of the open fire, I jumped a big buck that whistled a dozen times or more though I could not get a shot at him; about the next day's trip up Eight-mile Lake when the guide kept in the middle of this narrow wonder-lake with the canoe while I pussy-footed along the top of the high green, timbered ridges forming its shore line but saw no game and no fresh sign excepting that of caribou; about the trip out to the trading post with the meat and head, when we spent two hours on Rainbow Lake looking for Gordon Lake portage; of Boomer setting a bear trap at the moose carcass, and catching a fine cross fox that was devoured by timber

(CONTINUED ON PAGE 612.)

pletely around the big hill under the cover of the little ravine, to obtain which, he had fatally changed his course. He seemed paralyzed but aside from the expression in his eyes, which I read as pathos, his position suggested that he was just getting up from an interrupted nap. Just then the moose made a desperate effort to regain his feet and did manage to rise nearly a yard from the ground on his right front foot. This alarmed the guide who warned me that if the moose got to his feet he would charge, so I carefully placed another 129 gr. .256 just behind the point of the bull's shoulder. Gradually then, the fine head settled down on the naked poles among which he had fallen.

After taking pictures we measured the head and looked for the results of my first four shots. The spread was an even four feet between the fifth points on each side and 50 inches at the widest place. The antlers were the most symmetrical I had ever seen, nine even points on each side; the corresponding points on each antler being almost exactly alike,



A good day's bag of ducks

The home of the wild-fowler

Putting out the decoys

A MANUAL OF WILD-FOWL SHOOTING

PART THREE OF A SERIES OF ARTICLES DESCRIBING THE TRAITS, CHARACTERISTICS AND METHODS OF HUNTING OUR WATER-FOWL—SEA DUCK SHOOTING

By FREDERICK A. WILLITS

THE wild ducks are divided into two general groups or families: the sea-ducks and the river-ducks. The mergansers are given in the check list of the American Ornithological Union as a separate family of swimmers.

The sea-ducks are the salt water, deep water ducks or divers, the river-ducks are the fresh water, shoal water ducks or dabblers. The terms sea-ducks and river-ducks are, however, rather misleading, since the sea-ducks are not so exclusively maritime as the name would imply and the river-ducks are often found on the salt water about the coasts. The canvas-back, classified as a sea-duck, is found throughout America from the Atlantic to the Pacific, and they are no doubt as abundant on the inland ponds, lakes and rivers as they are on the bays along the coasts. The red-head, another sea-duck, is found on salt water, yet some of the finest red-head shooting is to be had about the Great Lakes.

On the other hand, the black duck, classified as a river-duck, is plentiful on the brackish bays along the coast. The mallard, pin-tail and the widgeon, all river-ducks, are shot on the salt bays as well as inland.

A dependable characteristic looked for to identify the sea-ducks from the river-ducks is the difference in the hind toe of the birds of the two groups. The hind toe of the river-duck is without a lobe or flap, the hind toe of the sea-ducks has the lobe. The toes and webs of the sea-ducks are much larger than those of the river-ducks, and the legs are placed further back on the body, thereby increasing their facility in diving and swimming.

The sea-ducks frequent deep water and dive for their food. The river-ducks do not dive but frequent shallow water where they take food near or on the surface. They also reach food on the bottom in shallow water by "tipping up," tail in air, neck and head immersed.

The wings of the sea-ducks are smaller

than those of the river-ducks and set further back and their feathers are thicker and heavier.

The ducks classified as sea-ducks are: canvas-back, red-head, greater scaup, lesser scaup, ring-neck duck, buffle-head, golden-eye, long-tail duck, ruddy duck, harlequin duck, Labrador duck, masked duck, the different species of eiders and the scoters or coots.

There are five principal methods of shooting the sea-ducks; shooting over decoys from shore; shooting over decoys from a battery; point or flight shooting; sculling for ducks; shooting from a line of boats on the open water and the tolling of the fowl with small dogs.

Much that has been said in the previous articles on goose and brant shooting applies equally well to the hunting of sea-ducks.

In shooting over decoys, both from shore blinds and from batteries, the start is made very early in the morning, often long before dawn. The best shooting is generally to be had during the first hours of daylight and again near sundown, as the ducks are then flying about in search of feeding grounds. The decoys should be placed on the water and the sportsman concealed in his blind with the coming of the first pale streaks of dawn.

The shore blinds are located on points of marsh or meadow running out into the bay or lake, or on the small marshy islands.

There are various ways of making these blinds. Where permanent blinds are used they are built of straw or rushes to form an inclosure in which the hunters will hide. It is well to build these blinds several days before shooting from them so the ducks may become accustomed to them and any change in the appearance of the point. Where there are no tall reeds or grass on a point, a box large enough to hold one or more hunters is sunk in the mud, the shooters thus finding ample concealment within.

The Barnegat Bay sneak-box is familiar to those who have shot on that water and elsewhere. This gunning boat is one of the most practical ever designed for the duck hunter's use. It serves the double purpose of carrying the sportsman and decoys to the shooting grounds and being the blind from which he shoots. The load of decoys is carried on the covered deck at the rear. When the shooting place is reached, the decoys are put out in the water and the boat pulled up among the rushes. Save for a cockpit, the boat is entirely covered over with a deck on which cut rushes and grass are spread so that the craft will resemble the surrounding marsh. The hunter takes his position in the boat beneath the deck. Lying on his back with his head just above the rim of the cockpit, he scans the water and sky for the ducks.

IT is all important to know where to locate the blind and how to arrange the decoys. This knowledge, gained from many seasons spent on the water with the wild-fowl, can hardly be acquired in any other manner. Advice in only a very general way can be given, since it is dependent on a given locality, the habits of the fowl there and the existing weather conditions.

It is very important to know what the ducks are doing, or rather, since the decision as to the location of the blind is made in the evening, what the birds will be doing the next day. Under observation ducks will be seen "using" certain points or "trading," as the baymen say, over certain islands. The birds will be seen frequenting certain parts of the bay, lake or marsh, and passing by other places which look equally good.

The wind must be considered and a decision reached as to where it will be during the coming day. Good shooting may be had from a point during a west wind while the same point may be worthless in a south wind. The observing hunter will soon come to know just what

places are the best during certain winds.

It can generally be stated that ducks do not frequent a windward shore. To place the blind and decoys so that the ducks must pass over the blind before reaching the decoys is a poor way, as the hunter risks a very likely chance of being discovered. Ducks coming down wind (flying with the wind) will always pass the decoys, make a circle and come into the decoys against the wind. They do this because they need the resistance of the wind to check the tremendous speed of their flight and enable them to alight on the water. A duck about to alight during a strong wind will lower and spread his tail, drop his feet and "lean back" in the air, in order to offer the greatest surface of resistance. Again, in leaving the water, a duck jumps against the wind; thus the wind tends to lift him up as he starts to fly instead of holding him down. On the water in a heavy wind a duck will always float head to the wind.

All this is taken into consideration. The blind and decoys are placed so that the ducks can come into the decoys against the wind without first passing over the blind.

Tide, too, must be considered. Ducks will frequent certain points at low tide, others at high tide, depending on feeding conditions.

The wooden decoys are painted to represent the more common varieties of ducks which frequent the locality. Each is attached by a long cord to a weight which serves as an anchor. The string is fastened to the fore-part of the bottom of the decoy so that it will float head to the wind.

The decoys are placed on the water just off the point within easy gun range of the blind. They should be well scattered, and considerable skill may be used in setting them out so that they resemble a flock of live birds feeding or resting. The decoys should always be placed in a conspicuous position, where they can be seen for a long distance by the ducks flying about. The whole scheme is to conceal the blind and to display the decoys as much as possible.

The duck decoys are often supplemented by a few geese and brant decoys to allure the passing geese or brant. A large flock of decoys are the most effective since they make a better appearance and can be seen for a long distance. I have shot over a flock of one hundred and fifty or more decoys when in company with other hunters. Of course when gunning from sneak-boats and when the decoys must be carried to the shooting ground each morning, so great a number of decoys can only be handled by a party of sportsmen, or a visiting sportsman with two baymen or guides. A man going out alone with one boat can take about fifty duck decoys with him provided they are well packed on the stern deck, with a few perhaps stowed away under the deck. This number makes a good showing if properly put out. The lone sportsman can tow another boat loaded with decoys, but this entails hard, slow rowing, especially in rough, windy weather. Many of the good gunning is-

lands in the bay are owned by private shooting clubs, in which cases the boats and decoys are kept on or very near the shooting points.

Live decoys are, of course, the best. These are birds either hatched and raised from wild duck eggs or wild birds which have been wounded and which have recovered. They are wing clipped and when being used as decoys are anchored out on the water by a weight and a cord fastened to the leg. Some of the baymen whose homes are close to the water keep large flocks of live decoys, and the birds are generally kept by the shooting clubs.

The birds soon become very tame and seem to know just what is expected of them. They will notice a flock of wild ducks at a great distance, often long before the hunter sees them, and will lure the flock within range of the waiting guns by calling to them.

Often the wooden decoys are supplemented by only two or three live decoys, callers they are termed, but even this number generally proves well worth the care of the birds. Their occasional flap-



Duck shooting requires warm clothing

ping or tipping up while feeding lends life to the wooden flock.

There are duck calls on the market with which, after practice, the sportsman can often call the wild birds to the decoys. Some of the old baymen are wonderfully proficient in imitating the different calls of the wild ducks, even without the use of any artificial device.

WHEN a flock of ducks notice the decoys they will sometimes turn and fly straight toward them but usually circle about once or twice before coming in. As the fowl are nearing it is of the utmost importance for the sportsman to remain absolutely motionless. Should his concealment be only partial when he first sees the approaching ducks, he should under no condition attempt to better it. Instead, he should remain absolutely still. The fact that the ducks have headed toward the decoys indicates that they have not seen the hunter, but if he lowers his head or in any way

moves to better his concealment, he will certainly be discovered.

When the ducks are well in over the decoys, and not before, it is time to use the gun and use it quickly. Ducks flying towards you over the water often appear much nearer than they really are. So the hunter should wait until the fowl have checked their flight and are hovering over the decoys, preparatory to alighting. Then is the time for the sportsman to drop his birds. Ducks have heavy coats of feathers which repel shot to a surprising degree, and they must be within easy range to insure a "clean kill," as the gunners say, and to prevent merely wounding the birds.

The first shot is often an easy one since the ducks are flying slowly and have spread their tails and lowered their legs in the act of alighting. The second shot, however, is far different. At the report of the guns the ducks spring high into the air and in a few brief seconds are under full headway and out of range. The gun must be aimed far in advance of the birds going off to the right or left, or well over those flying straight up.

Ducks will often alight on the water among the decoys if permitted to do so, where, of course, many birds may be killed with a shot when they are floating close together. There may have been some excuse for the market hunter for shooting his ducks on the water, since his aim was to kill the greatest number with the least expenditure of ammunition, but there is no such excuse for the sportsman, who presumably shoots for sport alone. No true sportsman would shoot a duck on the water, unless it was a wounded bird, nor shoot in company with anyone else doing so.

The sea-ducks are wonderful divers and can remain under the surface for a considerable length of time. A wounded bird upon striking the water will usually dive at once and come to the surface far out of range. Wounded ducks have been known to dive and take hold with their bill on plants growing near the bottom, where they remained until drowned, preferring to meet their fate in this manner rather than fall into the hands of the hunter.

When a duck falls from a good height with his head held or turned up it is an indication he is only wounded, and it is both wise and humane to shoot him again before he strikes the water.

On wild, rough, windy days the shooting is often good all day, for then the water is too rough to permit the ducks to remain for long on the surface, and they are mostly on the wing where, while flying about, they notice the decoys and readily come to them. On such days the shooting is often very rapid.

The sportsman must be a real lover of duck shooting to remain throughout the flight in his blind on the bleak stretches of the bay or marsh, facing the icy wind or perhaps the driving rain or snow. But when the fowl are plentiful and decoying fast it is a splendid sport, one which thrills and keeps the red blood rushing and coursing through your veins.

On still, mild days there is often a poor flight at dawn, which ceases altogether at an early hour, and throughout the remainder of the day until just before sunset hardly a duck will be seen in the air. During such weather the birds in huge flocks will float quietly on the water far out in the middle of the bay, where they are safe from the waiting hunters.

In the Southern States the duck shooter often has fine, clear, mild weather in which to enjoy the sport. Some excellent shooting is to be had in the South, especially in Southern California and about the Gulf Coast.

THE battery may be briefly described as a water-tight, coffin-shaped box, large enough to accommodate the shooter lying down. It has a wide rim which floats on the water, and the box is made to sink to the rim by placing weights, often iron decoys, about the edge. A large screen of canvas on a wooden frame is attached to one end of the box. This floats on the windward side of the box and serves to keep down the waves in rough weather, which otherwise might swamp the battery. The box is anchored out on the water with a long cable and anchor tied to the end on which is the canvas screen.

The battery and decoys are carried on board a motor boat or sail boat to the shooting ground, usually far out on the open water. There it is anchored over a feeding ground and the decoys, often a hundred or more, are arranged on all sides nearby. The sportsman takes his place in the battery and the baymen sails



A Barnegat sneak-box

away down wind to a sufficient distance so as not to alarm the ducks coming to the decoys. There he sails about and picks up the sportsman's birds as they are killed and drift toward him.

With head slightly raised above the plane of the water, the shooter watches for sight of the wary ducks. When a flock is seen headed for the decoys he remains absolutely motionless until the low flying birds are almost over the battery, then he arises to a sitting position for the shots. The shooting is often at close range since the ducks are over the decoys and the hunter in the center of the wooden flock. But the position while shooting is entirely new to one unaccustomed to shooting from a battery, and therefore the shots are not so easy to other than the veterans.

A flock of ducks which otherwise might

pass the battery without stopping is often attracted to the decoys by the shooter quickly raising and lowering a leg. The ducks, no doubt, mistake the movement for that of a bird rising on end in the water. After the ducks have once turned toward the decoys do not attempt to show them the boot again, for then they will surely detect the ruse.

The use of the battery is now prohibited in some states. The objection to this form of sport is that it drives the ducks from their feeding grounds as well as being very destructive.

Point or flight shooting at passing birds is often practised throughout the West. Decoys are seldom used. The ducks usually have a well established line of flight which they follow day by day when flying from one feeding ground to another. The sportsman conceals himself in the natural cover at some point under the line of flight, and there often enjoys some excellent shooting.

This is probably the most difficult form of duck shooting, since the shooting is generally at long range and the ducks under full headway when they pass. Ducks fly with tremendous speed, variously estimated in different species at eighty to one hundred and twenty miles per hour. The canvas-back is said to fly at the rate of one hundred and twenty miles an hour.

To estimate correctly the rate of speed and the distance of a passing duck requires much practice. It is all important that the shooter aim at a point far enough ahead of the duck so that when the charge of shot reaches the line of

(CONTINUED ON PAGE 631)



Photographed by John P. Holman.

Sneak-boxes on Barnegat Bay shoved into a point and covered with sea grass and rushes, making an almost perfect blind

DUCKS AND A DAY OF RECKONING

SHOOTERS OF TODAY MUST KEEP THE SPRINGS OF OPTIMISM WELLING CLEAR IN SPITE OF FAILURES FOR ONLY THEN DOES FULFILLMENT BALANCE WITH ANTICIPATION

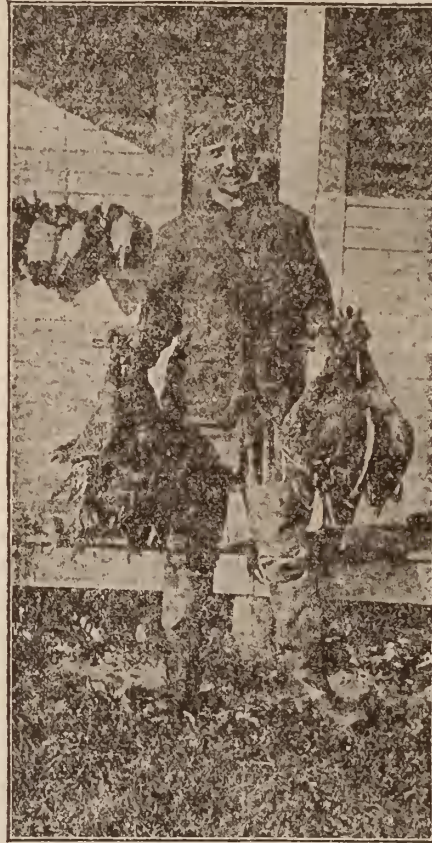
By ARMOUR W. BARBOUR

WHERE certain back-waters of the Great South Bay thrust sinuous fingers into the mainland, is a creek, navigable when one knows its twisting channel's vagaries. There, crouched in its concealment, stands our hunting shack. Grey and weather stained, strewn about with occasional shell monuments to departed feasts and hedged with stiff grass clumps, it treasures within that precious jumble, a raff which bespeaks an abiding-place of the unrestrained male. An ordered disarray of hibernating tackle, nets and oars stacked in far corners, rope ends coiling from beneath bunks; this is Elysium! Barter me a Mansion of the Avenue or Castles in Spain perhaps, and I will scornfully refuse you. For this is the house of priceless content.

Hereabouts I can exchange heat swirling from city pavements for tide-waves swishing cool under a boat's bow and a tingling taut line cutting water when weakfish strike; or I retreat under machine fire from apartment steam systems to the still of fall mornings when frost crystals sparkle under stars. Standing sturdy under lashing wind-squalls, our haven hunches its back a trifle as we are sheltered under its eaves. This is our shrine reared to the Red Gods where we breathe incense from the great outdoors.

Seasons roll past, one upon the other's heels, unfolding their vivid panorama of sport and the bittersweet of failure is always inundated by the flooding joys of success. Shooters and fishermen of today must keep the springs of optimism welling clear in spite of many rolling disappointments, for only then does fulfillment balance with anticipation. Their gems of happiness are composed of many small fragments set in that golden matrix of imagination which holds so much that memory loves to dwell upon.

WHEN autumn margins bay and marsh with frost-browned sedge, our shack bustles with new preparation. Sweeping southward from their northland lakes, duck hosts are coming fast. Decoys are plumaged with new paint and boats are thatched. Snipe whistle shrilly from meadow ponds and early ducks thrill us as they sweep across the sky. Anticipation flames a new amid the burnish-



Two handfuls of happiness

ing of old memories and the furbishing of renewed hopes.

Imagination is our steel bulwark against the buffets of adverse fortune. Without that armor, days lived in these marshes, even though leavened with some few shots, are too often almost as bitter as their waters. Soon we will lie close hidden while the black duck sweep over like smoke streaming from the meadows. Winter's storms spin the wheel of fortune while we watch the fall

of days in our sport's greatest gamble.

Despite dragging weeks passing on laggard feet, an end comes even to close seasons. At last, our morning came when dawn brightened the east while we lay at a favorite point. As if that first melting of shadows were a summons, serried squadrons of black ducks winnowed seaward without a single wavering individual among their thousands.

With the sun came blustering winds which gave fair promise of churning their ocean playgrounds with uncomfortable choppy seas. We burrowed as near as might be into the bottom planking of our boat, and lived that day through in vivid expectation of those ducks being driven back.

Stinging puffs bent the sedge over us like whiplashes and sought out weak crevices in our shell of garments. Once, two manifestly steel-feathered broadbill whipped out of nowhere across our decoys to depart unscathed. Near midday, one teal proved less invulnerable when he rocketed in and his wary way was willed to the brothers of his kin. A few birds traced their flight far out, avoiding all shoreward flats.

AT sunset, the wind departed on other business and golden tints were mirrored in the smooth water. Sadly we pushed out to gather our decoys, wondering how late those winging thousands would return. After the last cork duck was taken in, by mutual consent, we pushed back to watch for a few moments longer under the rising moon. When light vanished out of western sky and night mists were risen to screen luminous moon-shafts, fearless of that false brilliance, flocks came back and the air was vibrant with velvet rustling wings. The marsh was safe for its furtive children.

Sedgy coves and shallow reaches were suddenly peopled with feathered dwellers. Occasionally, from near or far, came softly modulated, throaty quackings which bespeak true duck content. Often, in the stillness, we heard water struck out of its placid quiet by flocks coming in, or slashed by the wing strokes of singles springing into flight.

Moonlight's soft, broad brush silvered the bay but, outside of its bright path, the sky was a pin-



A few live decoys were tethered to attract their wilder kindred

pricked curtain of blue-black concealment. Therefore, we really saw very little. One mallard winged his way to an engagement in our immediate vicinity, which his lady—even hunters must be chivalrous—failed to keep for reasons which are perhaps obvious. Had decoys been set, he would have honored them with his presence for he skittered into the water within a score of yards, and, more promptly, skittered out again. His keen eyes caught some suggestion of danger though we did not move. After that, we poled thoughtfully homeward, leaving the night chill for their undivided jollification.

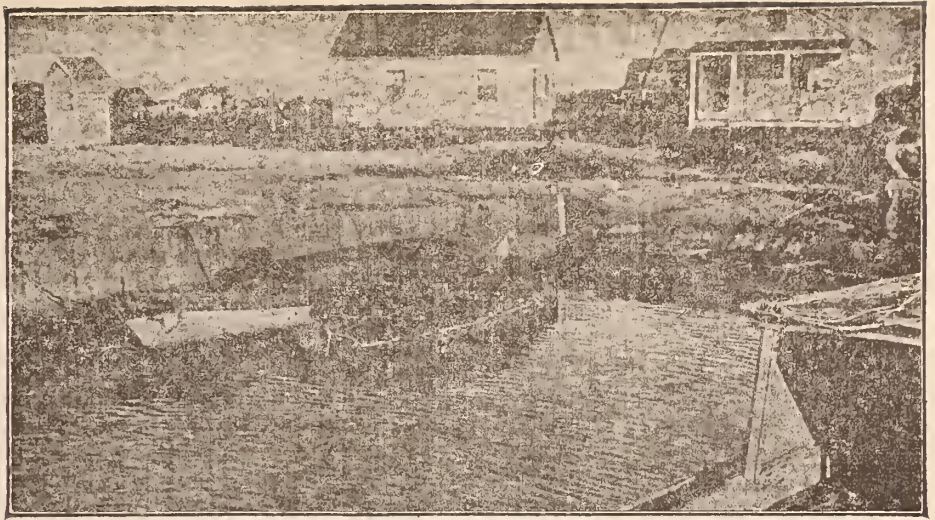
Unless additional evidence of wildfowl wisdom is valuable, that day was profitless. However, when we are informed that ducks have not inherited the grey-matter needful to encompass thought or transmit intelligence, that evening pops into the midst of our credulity. Combatting the onrush of civilization, wild ducks appear to display cumulative erudition which is not gained in single seasons. There must be seminaries of higher education somewhere in the unknown north. South Bay ducks usually eschew shoreward flats and shallows, tipping there upon luscious morsels during night's universal seclusion. Only when adverse winds or cold addle their instincts does the hunter reap his harvest.

That was our season's bitterest day, when enthusiasm ebbed low;—yet that dawn was near when the flocks were torn asunder and hours were struck with crashing gunshots. No gunner may feed the flame of his passion wholly with vibrant memories, or live only in misty dreams drawn on imagination's mirror. Our interest wanes even from old baymen's reminiscences of past annihilation unless we, too, live this our day of days.

LATE in November, we journeyed out for another day with those ducks which had been so unpenitent and persistent in lack of conviviality. The whole season long, our luck had deserted us, and the score, kept in secret honesty, was woefully short. Big flights were in the bay. We could overhear their vibrant conversational gossipings from meadow ponds while we packed decoys upon the skiff. But we had ceased to build hopes on that infirm foundation. The rafting flocks would break up only before buffeting ocean gales, and the day had been almost cloudless, stirred by light southerly breezes.

Pardner waxed optimistic, encouraged by the falling barometer and a blood-red sunset, but, in many cases, weather has small conscience in setting warnings. On this occasion, our doubts were unjust. Before rattling supper dishes were cleared away, darkness thickened outside and stars faded under a deepening murk. Rustlings of wind in the shingles and the bump of a boat against dock shoring brought welcome tidings of weather out of the east. Our alarm was set to steal another hour from that restless sleep which always comes vivid with dreams of miraculous shooting when real duck weather blows.

Breakfast consumed apparent aeons of



The home port which holds many a memory of former ducking trips

time before we tumbled guns, shells and hot-bottles into the skiff to start that mad race for favored points which duck days in these parts presage. During the night, the wind had freshened and stinging gusts told of sturdier strength behind the rising sun. Our motor boat slapped its progress through little waves roughening even the usually placid creek.

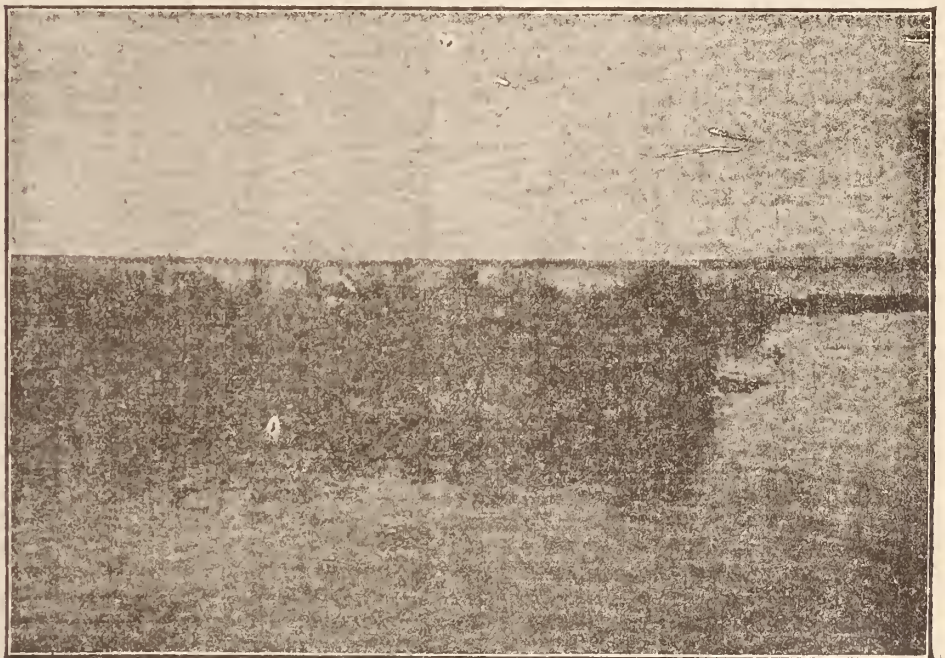
Navigation under an un-moon-lanterned sky, streaked with cloud wrack, was a precarious bit of tiller handling, even though east winds drive in high tides and mud flats lie deeper than is their custom. Fortunately, flood tide was making before the wind, therefore the channelway surges were smooth. Otherwise we might have spent that day at the shack in an atmosphere of steaming garments and maledictions instead of at Broadbill Point.

When the creek opened out, the gale's powerful sweep across those broader open estuaries among the islands warned us to steer close to that scanty lee which was afforded by windward mud-bars. Bounded by limited vision, we seemed to be axial amidst maelstroms of water

rushing past in twisting hillocks, and our boat bounced from crest to crest, thrusting its broad bow into each, sending torrents of wind-flung spray on either side.

By piecing faintly familiar landmarks together, we held our course until we were shut off in the haven of our point which juts, roughly crescent shaped, into the bay. Tall sedge clumps gave shelter from the blow and, after the tumult of crashing water, banging decoys and engine throbs, the overhead rush of wind alone seemed comparative silence. I remember the taste of caked brine on my lips and the rattle of whipping sedge on oilskins while we smoked cigarettes in grateful momentary rest. Then we poled out to set decoys.

DAY broke very slowly as dark waters and shores greyed out of the night. Suddenly rushing wings sounded and some ducks flashed by like phantoms, with only the turn of one head to mark their reality as they flitted over the stool. Instinctively we crouched behind the thatch while I held my watch to
(CONTINUED ON PAGE 618)



Broadbill Point, which commands a wide view of the duck's line of flight

ON A FURLOUGH AFTER BOB WHITE

THE ARMISTICE WAS ALL RIGHT IN ITS WAY BUT THE MUCH MORE IMPORTANT OPENING DAY FOR QUAIL IN SOUTH JERSEY OCCURRED ABOUT THE SAME TIME

By LIEUT. WARREN H. MILLER, U. S. N. R.

THE first thing I did after the Armistice whistle was to sand-bag the Admiral and grab a furlough off his unconscious body. Why this unseemly haste, instead of waiting to wrap up and put neatly away the pieces of the War? Because, while the Armistice was all right in its way, the much more important Opening Day occurred on November 10th, and it was all aboard for those who were going quail shooting in South Jersey, or stay at home forever.

The car was waiting; so were the quail; so were my fellow ruffians, who, it being a fine day, were spoiling to go out and kill something. The car left Interlaken on the morning of the 12th. and sped southward, while tents, duffle bags, dogs and guns rattled and shook in the tonneau. The *dramatis personae* of this expedition may here be sketched briefly:—Herman Beringer owned the Ford, so we will put him first, (so as to wing in on it next time). He is known as the Rabbit Scourge of South Jersey, or "The Scourge," for short, and, without his advertisements for lost dogs in the fall, a certain newspaper would have to suspend circulation. The next ruffian on the list is Frank Stick, the painter fellow, who rejoices in the alias, F. Stick. And finally there is Cap, the "Loot," otherwise known as The Bearded Lady. This latter name comes out on him about the second day at sea, and sticks and grows longer and more camouflagy with each rising of the sun, for he refrains from touching a razor while on the war path.

We started with two dogs, a beagle named Field, and a pointer, Mike, for we had a roving commission on rabbits, ducks and quail, and proposed to get in a smash at all three if possible. The duck idea went glimmering at Manahawken, where we found the bayman very morose and blue over the poor season, the aviators having scared all the ducks out of the bay. The Ford rambled on to West Creek, where we got out the tent and camped for the night. Field was turned adrift next morning, but with the exception of an old settled swamp rabbit, who kept ahead of him and at the same time out of our reach, he did not do much in the rabbit line. We saw no end of fox sign in that swamp, and concluded that they need thinning out if the rabbit crop is to thrive. So we packed up the outfit and started the car on its way again. Here Mike showed what he was in the world for, as he picked up a bevy of quail right on the edge of the road. The car disgorged itself in double time, leaving Field yelping on the back seat. A bevy of about fifteen rose as we crept up on them, and two birds dropped. As they went into a cloud of catbriers, and our anchor was aweigh and steam up, we did not follow them.

Breezing down the road, we soon came

to the real quail country, farm lands around Tuckerton and points west, and in due time we turned up a country lane that led to Nowhere. Nowhere had one inhabitant and twenty empty houses—a fine, brisk proposition for a real estate man,—but it was great quail country! I have hunted for the last six seasons in the South, traveling 700 miles to get no better shooting than we had right there. Nowhere produced one bevy of thirty quail at a crack—but more of that anon—suffice to say that South Carolina only once did better, and that was at Gadsden where a rumble-bumble of fifty of them once got up out of bed, heaving their blankets to the moon, and leaving six guns standing open-mouthed, too astonished to shoot.

WE came to a deserted chicken farm, cleaned out its old pump house, set up the camp stove and made ourselves comfortable. There were quail roosts all through the old wire fence chicken runs, now grown up with weeds and briars, and a rabbit dashed out from under an outhouse with Field one jump behind him and Mike scratching gravel just a tail-length behind him. The Scourge took off the head of the procession with a ready snap, and bowled him over and over in our front yard, and, when the dogs had had their say

about it, there was Supper, all dressed and ready to hurl into the fry pan.

But we wanted Q-u-a-i-l, and so grabbed up our musketry and fanned out across the fields. A circuit around three of them developed nothing but a pheasant, which whirred up out of a lumber slashing, spanked along with a charge of 6's from the Scourge's weapon.

Then, as dusk came on and we plodded home, Mike found them! Right on the rise of the hill, behind the chicken run, he froze, and we drew up, stepping light. Then, like the explosion of a feathered bombshell, the covey burst for the woods, and six barrels flashed out through the twilight. It was a small bevy of ten, and Mike, now circling on his hind legs, now standing on his head snuffing in the grass, found and brought us three. We pursued into the woods, but it was long after dark when we heard them whistling together again.

Frank soon had a saute of rabbit, a mess of spuds, a pot of tea and a can of peas bubbling on the stove, while in the oven a couple of dozen biscuits were rising. Man's chow, it was, and we fell all over it by the light of a couple of candle lanterns hanging in the little pump house.

After pipes were going, came a knock at the door, and we had a visitor—The Inhabitant. A right merry fellow was he, with stocky frame and laughing brown eyes; and with him was a setter, bred in the purple.

"Birdin' boys?" he asked, after the usual preliminaries.

"No," grinned F. Stick. "We're lookin' for a dear old lady with poor health and a good life insurance policy."

"Well, I got her!" came back the Inhabitant, whose name was Jeff. "She ain't been out'n her house in six years, and there's a fine bevy of birds right in her front yard—"

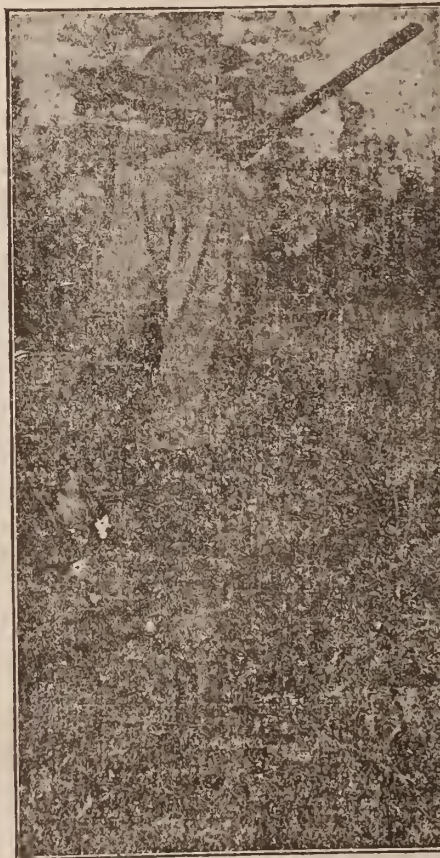
"Wow!" chorused the crowd, "Lead us right there, stranger! Never mind the insurance policy,—show us the birds!"

"Maybe she'll need it, before you get through shootin' up the place," observed the visitor, "but I'll take you there tomorrow,—and anywhere else you want to go. Birdin's my long suit; I generally rake in about forty birds a week in this season."

That wasn't bad for one gun, in South Jersey, so we hired him and his setter, then and there.

"What's the matter with this place, Jeff?" enquired Cap, "seems to have struck a blight, or potato rot, or something."

"Wa'al, this used to be a fine neighborhood," reminisced Jeff, "Best clammin'; best duckin', and best birdin' in the state; but the politicians hogged all the clam an' oyster beds, an' the boys moved out. Me and that ol' lady's all that's left. The last man had this-er chicken farm. His



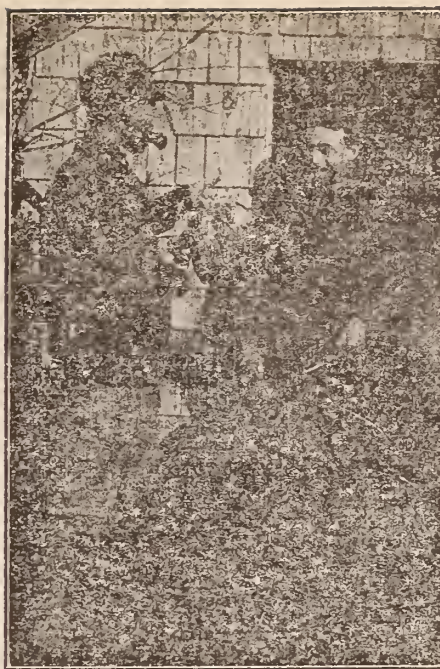
A nice bunch of birds

hens wouldn't lay; so he goes up to Tuckerton and snoops around another fellow's hen house, to see what he give them to make 'em lay. Soon he spies a bottle marked, 'Carbolic Acid.' So he don't say nawthin', but buys him a bottle and puts it in the water for all his fowl. Next day they all lay dead; so he hove 'em all into yonder pit up on the hill—nigh on two hundred hens, he had.

"'I'm through!' he yelps,— and pikes out'n here for Georgy. Ye can have th' hull place, now. Make y'rselfes to hum (we had) an' I'll be round, come dawn, with Jim-dog here."

NEXT morning we were off up the road. Jim and Mike lit out ahead in wide casts. Except for the absence of cotton fields, it reminded you very much of the South. The same pine uplands surrounded the brown fields; the same patches of pea and corn stubble formed feeding grounds for the birds. Twice the dogs made game, but it was early and cold, and they lost the scent. A little later the bark of guns in those same fields told that someone following us had been more successful. I should say that, in a lucky morning, one ought to pick up ten bevvies of quail in a circuit of five miles in that country.

When we came to the old lady's, the birds jumped without warning out of an old flower bed, and there was a fusillade of scattered fire. Jeff and Stick each knocked down one, and I divided my shot between the shingles of an outhouse and a big fat one who was zipping past its corner. We never found him. Marking down the birds, we followed up along a border of catbrier and scrub trees that divided the field from a salt meadow. Then Jim came to a point, and Mike backed him! A single got up and shot across my front. I dropped him; and then, in exactly the same path, a second one flew out,—and I grassed him also! The two birds lay within a hands-breadth of each other, the oddest double I ever made! Meanwhile Stick had stopped a straightaway ahead of him, and Jeff had hung one up in the briars. In all, there



Food for the frying pan

must have been ten singles in that covey, and they gave us an exciting quarter hour. Part of them flew on along the border and the rest managed to cross the field in front of our battery.

We decided to separate, and Herman took Mike and scouted up along the border, while the rest of us crossed the field and plunged into a dense thicket of white cedars. Here was snap shooting of the tightest variety, with birds whirring through the bushy cedars. Stick managed to stop another, and the double report of Herman's Smith told that he had taken toll of his bevy.

We decided that this covey had been punished enough, and so went on, crossing an apple orchard with fresh buck tracks in it, made that morning, and circling down to the water front. This should more properly be called the marsh front, for endless miles of brown marsh grass led the eye out to where sloop sails could be descried in the bay. Here, in a big corn

field, both Jim and Mike made game. It was warm, now, nearly twelve o'clock, and the birds had been out feeding and then had retired to the brush to rest and dust themselves.

All this, the dogs told us, as they worked over the intricate tracks out on the field and then went into the scrub. Again and again they froze, and we would close up, only to have the dogs begin roading again. Finally, after fifteen minutes of it, Mike and Jim both stopped, at opposite angles; canine statues that would make a sportsman's heart leap! The intersection of the lines from each dog's tail to nose told us just where they were—right in the center of a knee-deep huckleberry pocket. We walked up, gingerly—and then!—Whee! A double bevy!

At least thirty brown feathered bullets rose in a roar of wings and separated, one hatch passing Jeff and Stick to the left, while the other drove past Herman and me to the right. I have only seen that covey beaten once, and that was at Gadsden, South Carolina! As with most huge bevys, the results were meager. Two of us doubled on one big cock bird as big as a house; one was but wing tipped and got off into the thick brush, and the dogs only brought two birds to bag. Isn't it always so when the big covey of the day smashes up? Boys,—am I right?

WE pushed on after the singles. This is not the sport that one gets in the South, where the dogs pick them up in long-leaf pine groves and a man can see to shoot and has his mind on one bird at a time. This covey lit down in knee-deep huckleberries, with scrag overhead so dense that an anglerworm would find himself braided into a mess of Carrick bends before he got through. It was the toughest going I ever "seen," as the cowman said; and I got just one good poke, a single that let us walk right over him and then came on hurtling over my head through the pines when Stick stepped on him. The rest just lay close. We waited half an hour for them to begin whistling together, and, when that process

(CONTINUED ON PAGE 622)



Finally Mike and Jim both stopped, at opposite angles; canine statues that would make a sportsman's heart leap with joy!

FISH AND FISHING

CATCHING AND SPEARING SUCKERS

THE FIFTH INSTALMENT OF A SERIES OF STORIES DEPICTING THE SIMPLE JOY OF FISHING AS EXEMPLIFIED THROUGH THE EYES OF YOUTH

By LEONARD HULIT, Associate Editor of FOREST AND STREAM

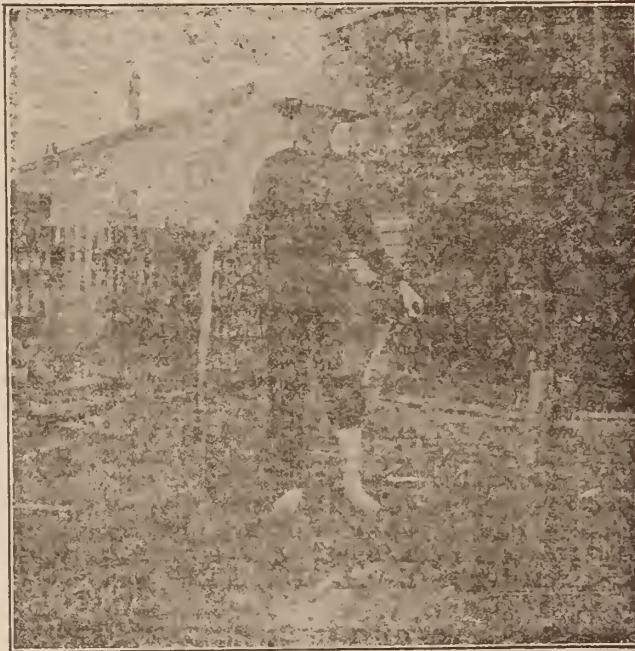
NEAR the town of S., in central New Jersey, there runs a tiny stream of water. At that point it is not more than four feet wide but is very active, being a spring-fed stream. Its course is due east and runs on through what has for generations been known as the Great Meadow and Turkey Swamp. Perhaps not a half mile of its course but is augmented by other streams flowing into it, until it assumes the dignity of a creek about five miles from its source. It comprises the drainage system of a large section of wild as well as good farming land along its course. At the time written of there were seven flourishing flour and saw-mills receiving power from the stream, supplying the needs of a thrifty and populous community. Below these the stream broadens out and is known as Manasquan River, which has always been productive of much fish life and a favorite resort for anglers.

The little hamlet where Matt lived with his aunt had suffered under several rather lugubrious names such as Spattown, Fiddlers Green, and Buckshutem. There were but few houses and one small country store and for many years it knew no change either in numbers or appearance. The store, as in all such places, was the meeting place in the evenings of men as well as of larger boys and gossip complimentary and otherwise was rife concerning neighborhood affairs.

THE evening following the perch fishing expedition Matt had been sent to the store for some commodity, carrying a small basket of eggs with which to pay for his purchases. Seated on a box in the store was a boy named Southard, older and much larger than Matt, who was at times inclined to be quarrelsome and something of a bully. "Gettin' a little high and mighty with your fishin', ain't yer, Matt?" he asked as the boy came through the door. "Seems if men wouldn't want a freckle face taggin' along with 'em anyhow; ketched any suckers, yet?" "No; I ain't," came the answer with some spirit. "I ain't tried yet, didn't know you'd bite." This witty sally was greeted with

a roar of laughter by all present except Southard who quick as flash kicked the basket from the hand of Matt, sending the eggs in all directions. For a moment the boy stood aghast, then, grabbing with both hands the curly hair of his tormentor, he sent his head back with a wicked thump against the counter. Both went to the floor snarling like a pair of cats, Matt holding like grim

to put the balance of this matter in your father's account," he said, turning to the larger boy, "an' when he asks me about it I'll tell him the whole story." "He called me a sucker an'——" "I didn't call you no sucker," broke in Matt sharply, "I said I didn't know if you'd bite like one, but you did." Here was open rebellion again, the boys stood glaring at each other. Suddenly Southard turned on his heel and without another word strode from the store. Matt lingered for a few minutes, then went out. Instead of going the usual way he cut across an apple orchard back of the store, then down a hedge which grew along a back lot and so home; meanwhile he had kept ear and eyes open for sight or sound of his enemy, for well he knew, as he expressed it, a "wallopin' was waitin' for him an' he didn't know as he wanted to be trimmed." Before going into the house he sat down on the wood pile and reviewed the whole affair. At first he thought he would say nothing to his aunt about it, but then he reflected that it was sure to reach her ears somehow and he determined to tell her all, just as it happened. Aunt Mary was sitting on the porch, for the evening was warm. She had seen him when he went to the woodpile, but had not called to him. "Seems like it took you a mortal



Matt holding one of his monster eels up for view

death to the locks of his antagonist. Strong hands, however, soon separated the combatants and Matt, crestfallen at his misfortune, stood looking ruefully at the wreckage.

His mental vision instantly conjuring up Aunt Mary and her wrath, for well he knew how hard it would be to convince her of his exact part in the affair. The storekeeper was naturally angry over the melée, soundly berating the larger boy for his attack and not altogether excusing Matt for his pertness of speech. The two boys were compelled to clean up the débris.

"How many eggs did you have and what were you sent for?" he asked a little shortly, his mind being still in a trifle ruffled condition. Matt told him and counting the unbroken eggs he proceeded to tie up the articles wanted and put them in Matt's basket. "I'm going

while just to go to the store," she remarked, as he sat down on the edge of the porch floor and shoved the basket back of him. "Well," he said, "it's warm an' I didn't hurry none." Then after a pause: "'Sides that I had a fight.'" Aunt Mary's feet came down with a thump and she sat bolt upright in her chair. "Matt Buckley," she said with energy, "has it got so you can't go to the store without gitten twisted into a snarl with somebody over the land knows what?" "I guess if somebody kicked a basket of eggs plum' outen' your hand 'thout cause you'd a twisted into a snarl, too," he answered, "'sides that, 'twas your eggs I fit over." Then he told her his story and how the storekeeper had charged the value of the broken eggs to Southard's father. "I wont have nothin' o' mine charged to nobody," she answered wrathfully, "just

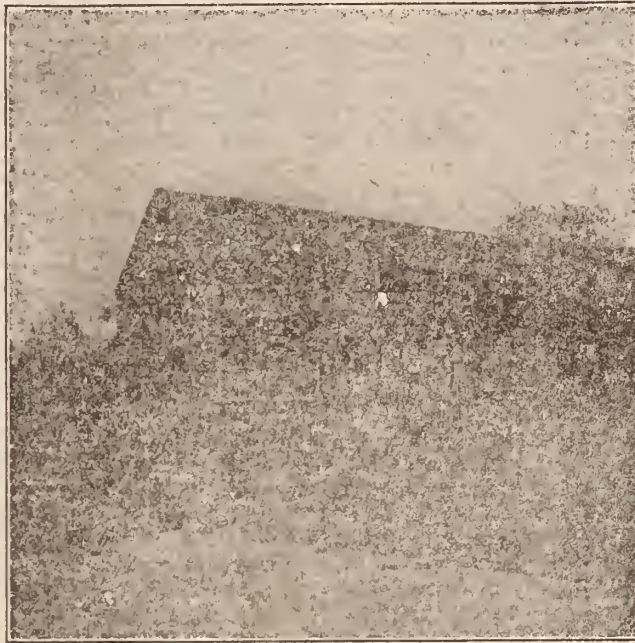
account of plain onriness." "Well," 'tain't no fault of mine cause its charged," said Matt, "if you'd a seen them eggs go whizzin' all over the store you'd a thought somebody must pay for 'em 'sides me," and the boy walked into the house and on to bed.

"I WAS up to the store this mornin'," said the Aunt, "and found out about them eggs," as Matt returned from an errand to a distant neighbor just before noon the next day. "You ain't blamed much 'cept your tongue was pert." "I never had a sucker bite yet that I didn't yank," said Matt quietly, "an' allus spect to." "I seen Mr. Woodhull in the store," continued his aunt, "and he said he was comin' over after dinner, but what he keeps taggin after a boy all the time for beats me." "That kind o' talk started a fight once," said Matt with a twinkle in his eye. Aunt Mary laughed and the boy giggled. "Anyways when he first come here he looked so white and pinched up I kind a wanted to help him and I ain't objected none to you goin' with him. I felt some out of doors would do him good." "Now, lissen to that, will you?" said the boy to himself as he went out to the shed, "Aunt Mary's curin' of him by not stoppin' me from goin' fishin'. Gosh; but she's got notions."

"You'll find him out by the shed," she said to Mr. Woodhull, after a few minutes conversation in the afternoon, "he's tinkerin' at something." He found the boy busily engaged in fastening a fish spear into the end of a maple pole about 10 feet long. He was drivin' a ring or ferrule down so as to hold it firmly in place and did not see his friend until he was close to him. He was perspiring freely and his hat was on the grass by his knees.

"The ol' gig handle was 'bout played out," he began, "an' so I cut this un. I left it a little longer'n tother, a foot or so don't hurt none when you're shinin' suckers. You can reach further." The gig, as Matt persisted in calling the spear, was a four-prong affair of rustic build, evidently by the hand of some country blacksmith. The prongs were a trifle more than four inches long with a bar cut near the points. It had been given to him by a man moving from the place and was a cherished object. "I've got loads of suckers with her," he said, after a pause and then proceeded to give Mr. Woodhull a general idea of the process of gigin' suckers. "You get 'em sometimes in the day if you're careful an' quick, but you have to roust 'em out from sods'n roots with the gig, nen hit 'em quick but the best time is nights. They're on the go all night an' if you shine 'em right they lay right still. Seems ough you could pick 'em up with your hand if the water wasn't too deep. An' frogs," he went on, "is

perfec' fools. Shine 'em right and you can pick 'em up like a stone." To Mr. Woodhull, shinin', as Matt called it, was a new procedure and he was curious about it. "It's this way," he explained, "this time o' the year the suckers run up in all these brooks from the river where they winter bed. They lay in the big holes in the creek in the daytime 'nen go up the small brooks at night where the water's cold, to lay their eggs, seems ough they do, 'sides I never giggered one in the daytime with eggs. Seems if it's the he ones lays 'round under the bushes an' sods, the mother suckers comin' up from the deep water on'y nights. I've seen 'em more'n once, a lot together where grass was or meb'e a bush an' the water'd look like milk. I never gig 'em that way, looks like murder to me, 'sides eels eats lots of their eggs. I allus gig an eel; me an' Aunt Mary like 'em better'n suckers, but she won't cook frogs. 'Frenchie,' she call 'em, but I don't know why." Mr. Woodhull explained that the French people considered frogs a great delicacy and that great numbers of them were sold in our



The old sawmill, scene of many of Matt's adventures

own cities. "Could I sell 'em?" asked Matt eagerly. "You can sell all you can catch," he was told, "The large ones sell best and always bring good prices." "Why, the's bushels of 'em around here, seems ough it might pay better'n berryin'."

Mr. Woodhull told him if he wanted to try it he would show him how they had them dressed in the markets and that he knew of an eating house where they made a specialty of such delicacies and that they would probably take all he could gather.

The fish spear having been securely fastened in the handle, Matt proceeded to file the point to his liking then turning it over and back, said: "She'll do," and placed it to one side. "Ever try 'asafitdy' on worms?" he asked, looking carefully around to see if the coast was clear. Aunt Mary allus has a little

mixed for the chickens, an I put a little on the worms when I go suckern', they take them prime. But why they do the Lord knows, it smells fit to kill 'em'stid o' catchin' 'em. We'd better take poles a little stiffer'n what we used for perch," and he began sorting out what he wished. "Suckers is heavier to lift outen the water. We might's well be goin'," he said, "we'll fish along the creek for 'em till near dark 'nen go spearin'." He packed up a can of worms after dosin' 'em a little with Aunt Mary's asafetida. "Better take all the hooks we used for cat-ties along, the 2-0 ones, as there's roots an' snags and like's not we'll lose some.

I'll get my shinin' jack now," he said, "no use comin' clean back for it." From the shed he produced an innovation of his boyish ingenuity. It consisted of a section of a stove grate firmly lashed to a forked maple with wire. On this was to be carried the fire to do the shinin'. Next, his hatchet, which was one of his most cherished possessions. He had earned it by turning a lathe for the wheelwright at different times. With it he cut and drove stakes for his muskrat traps and it was very useful in many ways. To carry it he had improvised a strap which he fastened to his suspenders at the back, so it would not be in his way. He next brought out a coarse bag that was not very sightly and smelled audibly of former trips. "They carry easier in this than in a basket when you get 'em," he said. About 3 P. M. they started for the creek which was not the one mentioned in former chapters. At least a mile separated them and they flowed in different directions.

AS they passed through the meadows the boy paused to cut with his hatchet a long root, blackened by fire, which had run through the dead grass at a previous date. As usual Mr. Woodhull was interested and asked what purpose he intended it for. "Goin' to have some fun if I can find what I want," he replied and said nothing further at the time. On coming to a pool of dead water in the meadow the boy began looking earnestly along the water. "Hol' on," he said, "now stan' still an' watch." Stretching himself flat on the ground, he wormed forward, pushing the root in front of him, weaving the end in and out around the bunches of grass at the water's edge. Suddenly a creaking "scape" came from the ground and a large frog bounded into the air, its long legs trailing behind and at each leap emitted the same plaintive cry until, finding a place evidently suited to its purpose and far enough from its dreaded imaginary pursuer, it plunged headforemost into the water where nothing was to be seen save a roiled place where it had quickly buried itself in the mud. The lad rolled over on his back and giggled and the man laughed outright,

(CONTINUED ON PAGE 616)

JAMES ALEXANDER HENSHALL

THE AUTOBIOGRAPHY OF THE APOSTLE OF THE BLACK BASS,
FATHER OF THE GRAYLING AND DEAN OF AMERICAN ANGLERS

SEVENTH PAPER

I HAD followed and practised the art of Guttenberg and Franklin for two years, when I feared that the confinement and leaning over the type cases was somewhat detrimental to my health; accordingly, after due consideration, I reluctantly gave it up and returned to Baltimore, where I had been offered a position in the counting-house of a large mercantile firm. My new work was quite congenial, but not nearly so interesting as typography.

Johnnie was delighted to see me back on the old stamping ground. He was an assistant bookkeeper in a house engaged in the West Indies trade. He had enlarged the circle of his friends, and among others, were the "Stuart boys." They were four somewhat remarkable young men. Originally from Annapolis, they resided several years in Washington City, where their father was engaged in one of the departments, and finally they drifted to Baltimore, where I first knew them.

The Stuarts occupied a house on Garden street, presided over by a colored factotum who was cook and major domo. The house was the headquarters of a coterie of congenial young fellows who foregathered with the Stuart boys several nights a week. The oldest brother, John Nelson Stuart, was a provincial lecturer on electro-biology and mesmerism, now known as hypnotism. William Brewer Stuart, the balance-wheel of the family, was bookkeeper for Poole & Hunt, a large iron concern. Henry Waters Stuart was a printer, and the youngest brother was a card writer.

There were eight of us all told, from eighteen to twenty-two years of age, who were frequenters of the Stuart domicile, and among us we organized a dramatic club, a glee club and a minstrel club, which kept us pretty busy practising our various roles. We were said, by our friends, to have achieved considerable merit in the several clubs. The dramatic club eventually turned out two or three professional actors, one of whom, Henry Waters Stuart, became one of America's best eccentric comedians under the stage name of "Stuart Robson." Two more from the minstrel club became burnt cork professionals, one of whom, Nelson Sanderson, a son of the sheriff of Baltimore county, was afterward known for many years as "Nelse Seymour" of Bryant's Minstrels.

Henry Waters Stuart, or Stuart Robson, as I may as well designate him, was born in the same year as myself. When a lad he was a page in the U. S. Senate. One of his fellow pages was Arthur Puc Gorman who afterward became a U. S. Senator from Maryland. While a page, Stuart Robson set up and printed a little four-page paper called *The Joker*, which circulated among the members

of Congress. Stuart Robson was the heavy man, or leading man, of our dramatic club, and aspired to melodrama and tragedy; his favorite character was Claude Melnotte in "The Lady of Lyons." He took things very seriously, for there seemed to be no humor in his composition; I was the comedian of the club.

Old John Weaver, proprietor of the Walnut Street Theater of Philadelphia, came to Baltimore about that time, and Stuart applied for a position in his company, then on a provincial tour.

"What can you play?" asked Weaver. "Juvenile business and melodrama," replied Stuart.

"Oh, no," rejoined Weaver, "not with that voice."

That "voice" as many may remember, was somewhat peculiar. Weaver engaged him as second comedian, as it was called at that time, and Henry Waters Stuart as "Stuart Robson" made good.

Shortly after this the three other brothers went to Shreveport, Louisiana, and engaged in the cotton business. When the civil war broke out all three enlisted in the Washington Artillery of New Orleans, a famous local organization, and all three were subsequently killed in action.

I WAS sometimes sent on business trips by my firm to various southern cities.

On one occasion I was sent to Norfolk, Va., during an epidemic of yellow fever in that city and Portsmouth across the bay. I took passage on the steamer *Pocahontas*. Among the passengers was an acquaintance, a young physician, Dr. Walters, who had recently received his diploma. He had volunteered his services during the epidemic and was on his way to the afflicted cities. As I was to be in Norfolk about a week, I said I would be glad to render what assistance I could, as I intended to become a physician some day, and had been reading anatomy and physiology for a year or two. During my stay in Norfolk I tried to make myself useful in various ways, mostly in the hospitals. The disease was very fatal, the mortality being more than four thousand in the two cities. Many of the dead were buried in long trenches for lack of time and scarcity of help.

I became acquainted with a young naval officer, an ensign, from Tennessee, who was on leave of absence in order to be with his fiancée, a young lady of the city, who had been stricken down with the dread disease and finally died a few days before I met him. He went to the cemetery every night to place flowers on her grave. The cemetery was several miles from town, and thereafter I accompanied him. It was a pleasure to breathe the fresh air of the country after being subjected to the pestilential

atmosphere of the city. I would sit on a tombstone and light a cigar while he visited the grave of his loved one. By the time he returned my cigar was finished, and we walked back to town, silently, each busy with his own thoughts. I never saw him again after leaving Norfolk, but in time he rose to the rank of commander before he died.

There were frequent fires at night during my sojourn in the city, caused by ignorant and superstitious people setting fire to houses where fever patients had died, with the view of burning out the disease. One night a hotel that was being utilized as a hospital was burned in this way. Fortunately the patients were removed to a place of safety, and many of the mattresses and cots were stored, temporarily, in a vacant fire-engine house.

The next night Dr. Walters and I were taking a stroll, and on passing this building we discovered smoke issuing through a wide crack where the double doors met. We threw open the doors, which were not locked, and as the Doctor ran for the nearest fire-engine I rushed into the room. The air blowing in through the open doors fanned the smoldering fire into a blaze. I began throwing the mattresses and cots about to extinguish the flames. The fire had apparently been smoldering for several hours in the beds saturated with the perspiration and emanations from fever-stricken patients, rendering the dense smoke exceedingly fetid and nauseous, which I was compelled to breathe.

I worked fast and furiously for awhile until I began to feel faint and dizzy and bewildered, with a feeling akin to that when I was smothered in the old oak chest of childhood days. I suppose I became unconscious for a few moments, for I found myself on the floor, where the air was better. I began to look about me trying to locate the entrance. Then I saw a lighted lantern and crawled toward it. It was in the hand of a fireman, who with another one was dragging in a hose. I was helped to my feet and out into the open air where I found Walters, and feeling better, though a bit shaky, we went to our hotel.

ON another occasion I was sent to Charleston, S. C., and when my business was finished the junior member of the firm took me out to see the sights of the town. Passing by the market-house I was interested in the colored vendors of fish, crabs, vegetables and fruits. But a matter of more interest was a flock of twenty or thirty buzzards perched on the ridge of the market-house roof. Buzzards were the scavengers in southern cities. When any of the market-house contingent spied something in the street, cast aside from

the stalls, they were quick to swoop down, pick it up, and return to their post of observation to devour it and wait for the next *bonne bouche*.

I was told that these buzzards flew regularly from Charleston to Savannah on market days, which were held on alternate days of the week, and in this dual capacity they did service to both cities and with much profit to themselves.

We then wandered down to the dock to see the vessels and incidentally to watch the negro and white boys fishing from the wharf. It being summer, a number of sloops and schooners were moored, stern on, along the wharf, loaded with watermelons, and in charge of negro skippers. The melons were being loaded into carts, being pitched from the boat to the cart drivers. At stated intervals, it seemed, a small one would be dropped by the catcher, and as it burst into fragments on the wharf the youthful anglers, who had been watching with one eye on their "corks," and the other for just such a contingency, dropped their lines, and emulating the market-house buzzards in their eagerness, rushed to the feast to the great amusement of the crowd. Watermelons were plentiful and not subject to war prices. Then sitting on a wharf timber my friend related this story:

A diver, in his suit of submarine armor, was working on the bottom of a schooner, and the ladder by which he had descended was leaning against the wharf. There was a vacant space along side which was soon occupied by a sloop loaded with watermelons, in charge of a country negro. He made fast to the wharf with stern lines near to the ladder. At this juncture the diver began to ascend the ladder, and as his helmet and shoulders appeared above the water, he turned the front of his helmet toward the negro, and as the huge goggle eyes of the monster stared directly at him, the negro in consternation and fear, his eyes bulging from their sockets, his jaw relaxed and mouth wide open, he emitted a howl of dismay and fell backward among his melons transfixed with terror and paralyzed with fear, and no wonder.

The diver taking in the situation, and also taking a melon from the deck, descended the ladder and disappeared below the surface of the water. Then the spell was broken. The demoralized negro, with fears for the safety of his cargo, regained his voice and the use of his legs, and leaping to the wharf ran yelling and shouting for help. "Whar kin I fin' a constabel? De debbil's stealin' mah wattermilyons and totin' 'em down to hell! Whar kin I fin' a prechah an' a constabel! Oh, Lawdy, Lawdy, wat'll Marse Dixon say when I goes home 'doubt any money and 'doubt any wattermilyons. He'll skin me alive. Oh, Lawdy, Lawdy!"

When the terrified darkey was pacified and taken back to his sloop, the diver's helper had unscrewed and removed his helmet, and with the melon still under his arm, he said:

"What's the matter with you, boy? Here's a quarter for your melon; I just

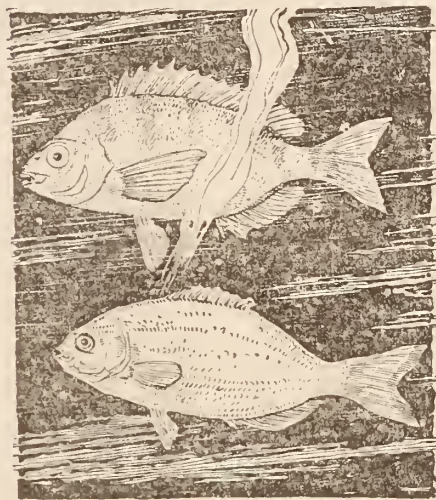
took it down below to cool it. Didn't you ever see a diver before?"

"No, sah; not a hell diver; nebber did see sich a project. I wuz jist shuah dat yo wuz de ole he debbil hiself, hons tail an' all. Tank yo fo' de quartah, sah, debbil or no debbil."

The good-natured crowd which had collected began to buy the old negro's melons, and soon half his cargo was disposed of.

"Tank yo, gemmans," he said, now thoroughly restored to his usual good humor, "tank yo-alls fo' yo'r gen'rosity. When I go home I gwine tell Marse Dixon how de debbil he holp' me to sell mah wattermilyons."

THE next day I went from Charleston to Savannah, and having finished my business, one of the firm went with me for a stroll. He seemed to be quite a sportsman and talked of fish-



SALT-WATER BREAM CHUB.

ing and shooting. As we went through the fish market I saw some fish that were new to me. One he called a weakfish resembled the weakfish of the Pat-apso except that the coloration was lighter and more silvery, and had small dark spots instead of blotches. A fish he called a whiting was the same as the kingfish or barb of the Chesapeake. There were several very large sturgeons on the floor of the market, of which he said the negroes were very fond. The entire roof of the market-house was occupied by buzzards, which my companion assured me were some, if not all, of the birds that I saw the day before in Charleston, and corroborated the fact of their flight between the two cities on market days.

We then walked along the wharf on the river to see the vessels, and among others we came to a large batteau, on the stern deck of which an old negro with a grey beard was smoking his pipe, while a mulatto boy was stoving a lug sail. My friend accosted the old negro with:

"How d'ye, Uncle Peter; how are you getting along?"

"Jist tolabel, Marse Charles, got a touch of roomatiz in mah laigs yit."

"I'm afraid, Uncle Peter, that you eat too much catfish and rice." This

seemed to touch a tender spot, for he was quick to say:

"Oh, don't Marse Charles, dat nebber happened in de worl'. Jist a pack o' lies ob dat lyin' yaller rascal, Henry."

"Well, good bye, Uncle Peter; go up to the store in the morning for some freight for the plantation."

We passed on, and while seated on a heavy spar "Marse Charles" told the story of Uncle Peter, which he declared was as true as gospel. The batteau Uncle Peter, and the mulatto Henry belonged to a planter up the river. Arriving at the wharf, one day, just before sundown, and after mooring the boat to the wharf, Uncle Peter went uptown to report and purchase something for supper. He returned with a catfish, some rice, and a pint flask of rum in his pocket. He gave the viands to Henry to cook for supper, and after a smoke sat with his back against the mast, and began imbibing the rum while Henry was busy at the galley. Meanwhile Uncle Peter applied himself assiduously to the flask which he finally emptied.

Not long afterward Henry called out: "suppah' raidy, Uncle Petah." But Uncle Peter was oblivious to all things terrestrial and there was no response but a grunt. In due course Henry called again and again: "Yo suppah's raidy, Uncle Petah and gittin' col'," but without avail. Then Henry cut the catfish in two, and divided the rice into two equal parts, and began eating his own supper, meanwhile calling Uncle Peter at intervals. But Uncle Peter was still enjoying the soporific effects of the generous liquor.

At last Henry had eaten his share of the supper but was not fully satisfied and began poaching on Uncle Peter's preserve. He cut off a small piece of fish, and then scooped up a spoonful of rice and gravy, and continuing in this wise, almost unconsciously, he finally licked the platter clean. He had eaten his own supper and Uncle Peter's as well. Then realizing the enormity of the offense, and not knowing what to do began wailing to himself: "Oh, man, man; Uncle Petah'll kill me; he'll tie me to de mas' and whup me mos' to deff." Just then a happy thought struck him. He carried the empty pan and dish with the bones, skin and some scattering grains of rice to where Uncle Peter was snoring like an alligator and lost to all sense of feeling. He laid some of the bones and skin and some rice in Uncle Peter's lap; then he smeared gravy and rice on his beard, and finished by greasing his hands with gravy and laying the pan and dish close beside him, and waited further developments while he smoked his pipe on the after deck, in fear and trembling. Then he rolled himself in an old counterpane and tried to sleep.

Two hours later Uncle Peter roused himself to partial consciousness, and feeling a goneness and gnawing at the pit of his stomach, and realizing the cause of it, he called out: "Henry! Henry! whar's mah suppah? Yo' bin long time a-cookin' it. Hurry up, Henry!" Then Henry drawing near him

(CONTINUED ON PAGE 625)

FOREST AND STREAM

FORTY-EIGHTH YEAR



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THE OBJECT OF THIS JOURNAL WILL BE TO studiously promote a healthful interest in outdoor recreation, and a refined taste for natural objects.
August 14, 1873.

GAME REFUGES IN OUR FORESTS

NOT many years after the first forest reserves were set aside, and while the question of their usefulness was still under debate, a group of big game hunters urged that the United States should assume not alone the ownership and protection of the forests, but also of the game found in the forests. With various modifications the subject has since been much discussed and several bills have been introduced in Congress to establish in the National forests game refuges where the wild animals shall be wholly free from molestation. The subject is again brought up by a bill introduced in the Senate by Mr. Nelson to establish game sanctuaries in national forests.

The bill provides that the President of the United States, on recommendation of the Secretary of Agriculture with the approval of the Governors of the states in which the several national forests are situated, may establish by proclamation certain specified areas, as game sanctuaries or refuges. The lands so set aside shall not cease to be parts of the National forests and the Secretary of Agriculture is not forbidden to allow grazing on these areas, so far as such grazing "may be consistent with the purposes for which such game sanctuaries or refuges are authorized to be established." Killing, capturing, pursuing, poisoning and trapping wild animals, birds or fish are forbidden. The Secretary of Agriculture shall carry this Act into effect and shall make regulations under which legal fishing and destruction of predatory animals may be carried on. He shall cause the boundaries of such refuges to be marked and see that the rules and regulations are carried out. The purpose of the Act is to provide breeding places, under natural conditions, for large wild animals such a deer, elk and mountain sheep, which may spread over adjacent territory to be hunted in accordance with state laws; to establish refuges of medium size rather than large preserves, and, whenever possible, to establish chains of sanc-

tuaries which may restore wild animals to intervening territory.

The purpose of this bill is excellent, and all who are interested in the preservation of our wild species will hope for its enactment. It is somewhat loosely drawn and requires some amendment; especially the insertion of a provision which shall authorize the appointment by the Secretary of Agriculture of employees of the Forest Service to enforce the provisions of the Act. Such wardens should have the power to arrest any persons violating the provisions of the bill, or the regulations established under it, and to bring such persons before any United States court for trial. The Secretary should be authorized to suggest to the Governors of the states in which the game refuges or sanctuaries may be established the appointment of the wardens of the Forest Service to act as game wardens of their respective states to serve without pay.

Big game hunters will do well to secure copies of this bill—S. 2182—and study its provisions with a view to suggesting amendments which may make it more effective.

Sportsmen have waited long for the enactment of a bill such as this, and are looking forward to the time when it shall become law. For twenty or twenty-five years men have been urging that our national forests should in part be utilized for such a purpose and some day Congress will act. May that time come soon.

SHOOTING ACCIDENTS

EVERY year, during the hunting season a number of fatalities occur in the woods. The lists that come in are full of pathos. A son shot his father, a nephew his uncle, a young man killed his best friend. In most cases the wounding or homicide was caused by carelessness. Under other conditions such an occurrence would be termed criminal carelessness, and might mean a term of imprisonment.

These cases, however, are usually defined by the coroners' juries as accidents and are passed over and soon forgotten by all except the unfortunate persons who did the shooting. Inexcusable and wicked as these occurrences are, their number is not likely to be lessened by wordy condemnation of the carelessness which causes them. They are the results of inexperience and lack of self-control—faults of youth and of defective training. The lessons of life are to be learned by each one of us only in life's hard school. The father cannot pass on to his son the experience that the years have taught him; he can only advise.

But the son is likely to remember and to profit by the hard knocks that he himself receives. No man who goes hunting contemplates the possibility of shooting a man or of himself being shot, but the apparent nearness of game seems to drive out of the hunters' mind every thought except that of securing the quarry. So he shoots at he knows not what and too often with the saddest results.

It is the duty of every experienced man who has to do with young persons going into the woods for deer, to talk to each of them about the use of his gun and to impress on each the possibilities of danger which lurk within the weapon, and the importance of keeping this danger in mind all the time. If the experienced hunter would strive harder to make the inexperienced hunter realize that in careless hands the gun is a constant source of danger, the number of such accidents might be greatly lessened.

EARLY SHOOTING DAYS!

BEAUTIFUL as are these Indian summer days, lovely as are the woods with changing colors, or hillsides dotted with the bright green of low cedars, the dark hue of bayberry or the red of huckleberry bushes, these are not the best days for shooting. The sun shines warm and bright, a haze is in the air, and he who goes abroad with gun feels more like sitting down on the hillside and dreaming over the beauty of the landscape than lustily tramping for birds.

Besides that, the prairie chickens have packed and are wild, the ruffed grouse are in the midst of the "crazy season," and the quail have not yet settled down to their winter feeding grounds. True it is that the squirrels are active and if one finds a piece of woods where nuts are plentiful he may get many shots; true it is that many ducks have come on and that along the seaboard they are even plentiful, yet the warm weather takes the energy out of man's muscles and he cannot put into his day afield the drive which in these times of game scarcity is needed to secure even a few birds.

A little later, when a storm has washed the haze out of the atmosphere and torn the leaves from the trees, and when keen frosts harden the ground each night, driving before them from the north wild-fowl in numbers and woodcock not a few, then it is that the gunner, filling his lungs with the cool, crisp air, can start out early and tramp long and late, ransacking cover after cover and returning at night with a weight in his pocket which shall lighten and comfort his homeward way.

In the Middle Atlantic States October and November, as open seasons for upland birds are much better for the birds than they are for the gunner. And yet we cannot complain of this, for in these days the favors should be shown to the game and not to the man who hunts it.

NO TRESPASSING ALLOWED

IT is a well-known fact that the words which are contained in the title of this editorial, or their equivalent in meaning, are becoming more and more common on the fence posts which border our farm lands. It is also a truth that the words carry a meaning of considerable importance to those interested; and those interested are all who love the freedom of the woods and rivers. They are interested in these words because the rapidity of their multiplication in the past few years points to the fact that soon there will be very few farms from which sportsmen are not barred.

The meaning of the words is evidently clear! Although there may be an occasional word misspelled, we infer, upon beholding the sign, that we are not wanted on the premises. And the questions at once arise: Is this farmer or owner unusually hard-hearted and brimful of cussedness, or has somebody given him a reason to so plaster his fence corner with this hideous reminder?

Probably only one owner in every hundred puts a sign on his land because there is hatred for the sportsman in his heart. Ninety-nine owners have posted their land because they have been forced to do so on account of the annoyance they have suffered at the hands of people who have trespassed.

The man who maliciously destroys property, the one who destroys it unwittingly and at the same time is not man enough to confess to the owner and make

it good, and the boy who wantonly destroys, are making it necessary for the farmer to post his land to-day. There is plenty of evidence, sadly enough, to show that the sign-post is justifiable. The evidence ranges all the way from "chicken killed" to "horse shot."

Those who maliciously do damage, those who do damage and do not make the loss good, those who fail to leave the floor of nature clean for the next beholder, are harming not only themselves in the eyes of the farmer; they are throwing suspicion upon, and doing harm to the true sportsmen who are out for the love of God's handiwork, who believe in fair play, and who leave the camp clean.

So the clean sportsman must bend all his energies against the irresponsible person who would cheat him of his heritage. He must teach his children and other children about the property rights of the other fellow. Otherwise it will soon happen that there will be but few places, and very few at that, where he may worship at the shrine.

The average farmer is very glad to give permission to responsible people to go over his fields. In fact, he seems to know that responsible people, if in doubt as to their bearings, usually ask permission. But unless the responsible sportsmen use their energies to help the farmers protect their lands against invaders, the time is not far off when all our farms will be adorned with *no trespassing allowed*.

TIN HATS AND THE DEER SEASON

THE New York *Sun* printed the following conversation which was overheard in a railway train in New York State recently:

First Man: I saw a lot of cots, blankets, surgical supplies, etc., consigned to a hospital in Utica. They must expect a rush in business.

Second Man: Yes; you see we have no buck law in New York now. You don't have to see horns. Bang away at anything. So I guess the up-State hospitals are getting ready for an influx of wounded hunters.

Don't throw away the old tin hats, boys. They may come in handy during the deer season.

BAG LIMITS

SPORTSMEN who are inclined to be proud of their skill seem to feel that if they bring home any number of birds below the number proscribed by law, it is in a way humiliating to them and two or more vie with each other in a friendly way. When, as with wild-fowl, the number is twenty-five per day, in some States, and a party shoots for several days and each member brings in the limit every day, the intended effect of the law is lost. In short, if every man who shoots is generally successful in bagging the limit, then that number must be reduced until the bag limit really means something.

Let us all think of game preservation first and of big bags afterward when we have opportunities to make high scores. The best way is to regard the limit as a reminder to count heads when the bag grows heavy and then stop if the number is ample for all our needs. The law is intended to restrain the greedy, not to remind good sportsmen that they must kill just so many in order to maintain their prestige among their neighbors.



THE BLACK RHINO OF THE LADO

SOME INTERESTING NOTES CONCERNING ITS LIFE HISTORY AND HOW IT DIFFERS FROM ITS COUNTERPART OF THE AFRICAN WILDS, THE WHITE SPECIES

By Major C. H. STIGAND

THE black rhino, unlike the white, is widely distributed over Africa. It used to be common in South Africa but is now scarce south of the Zambezi river. North of that river it is plentiful in such parts of northern Rhodesia, Nyasaland and Portuguese territory as are thinly populated, but it does not like the neighborhood of man. Owing to the thickness of the bush country it inhabits, and consequently the difficulty in locating it, the rhino appears to be less common than it actually is.

British East Africa and part of what was until recently German East Africa are par excellence the country for rhino. These countries have been lately so much settled over that the game has been thinned off in most of the healthy uplands but rhino still occur in numbers in the thicker and more unfertile and unhealthy parts. They are found in the Sudan and Ugaury on the east side of the Nile, from the Sudd region southwards, but do not appear on the west bank where the white rhino take their place.

In Somaliland it is only when one reaches as far south as the Webbe Shebeli that this pachyderm is met with. It does not occur in the highlands of Abyssinia but is found in the thorny bush country which lies below the upland plateaux.

Its chief food is the leaves of thorn trees of the acacia type, although it does graze on other plants. Therefore it is generally met with in the hot and rather sterile areas which favor the growth of such trees, although it usually keeps to the thick bush it is also seen in the open plain and desert. Especially is this so in East Africa where rhino can be recognized miles away, as dark patches moving across the vast, open prairies called the Athi and Kapiti plains and in the northern desert regions on the Abyssinian border.

A casual observer, seeing them in such spots and furthermore noticing them grazing and, if near enough, seeing their jaws actually moving, would be willing to stake his all that they were feeding on grass, like the other game of the plains around them, but he would lose his money. If one looks closely at the place in which a rhino has been grazing one finds a number of tiny thorn shoots and it is these it has really been eating.

On being disturbed the rhino will generally gallop off but does not always go in the opposite direction to the threatened danger. In rhino-infested country one is constantly being scared by animals

MAJOR STIGAND is one of the most noted of recent African big game hunters and explorers, and he is also a field naturalist of unusual powers. His studies of the tracks of animals have been almost unique. The only studies approaching them are those about the tracks of game of continental Europe, in the hunting books of the seventeenth century. He has the keenest appreciation of the vivid and extraordinary beauty of the teeming African wild life and has made close first-hand observations of the life histories of very many species of big game.—[Theodore Roosevelt in foreword to Major Stigand's book, "Hunting the Elephant in Africa."]

dashing past too close to be pleasant. I remember an occasion on which one came up from behind my caravan and careered up our path from rear to front. Every porter had to throw down his load and skip out of the way until finally I myself, marching in a dignified way at the head of the procession, looked round at the scene of commotion just in time to make a bolt for it. It appears to me that the rhino, before lying down, maps out its line of retreat and charges off in this predetermined direction quite regardless of whether it is towards or away from the threatened danger. It is this habit which makes him so often come to close quarters with the hunter, or blunder through a caravan of porters. Of course they will also charge with every intent to do injury, generally following up the wind or, occasionally, charging for the sound of a rifle. When the animal really means business it will, instead of thundering past, turn quickly when it finds that it has missed its objective, or when it gets a new indication of direction from sound, or scent. Being very short-sighted it has to come very close before it can charge on sight. It is astonishing how quickly this ponderous beast can wheel round on such occasions and also, when disturbed whilst lying down, how it can spring up and break straight into a gallop—apparently requiring no time to get up steam. The pace at which elephant and rhino move appears much greater than it really is; a good runner could probably outdistance them, or be able to dodge them, on a racing track but

one does not meet them on such favorable ground. One meets them in thick grass and bush, through which one can only force a way with difficulty, whilst under foot are roots, stones and ant-bear holes. When one tries to run races with them under such conditions one always loses, unless one has sufficient start to get out of the wind before one is sighted.

MANY years ago, in Nyasaland, whilst following an elephant path through thick country, I cut the fresh spoor of two rhino who had crossed the track and were lying down, unknown to me, thirty yards, or so, away. On getting my wind they both came for me. Owing to the thickness of the grass I could not see them until they were but a few yards distant. I then fired in the face of one of them and jumped aside to try to dodge the second. This one whipped round, as quick as lightning, kicked me over and then tossed me high in the air, ripping a large gash in my chest with its horn. I reached the ground just in time to get a glimpse of its hind quarters as it was rushing away. Probably the one I fired at had retired on receiving a bullet in its head and the other, finding its companion gone, had hastened to follow it, instead of waiting to finish me off.

Some people think it particularly low down for the rhino, and other dangerous game, to molest the innocent hunter in this way without provocation. They condemn them as 'savage' and 'ferocious' beasts not worth a moment's consideration and only fit to be exterminated. Such an attitude is unjust—worse still it is lacking in a sense of humor. Firstly one never knows if the animal was really unprovoked. It may have been shot at by some other sportsman and be unable to discriminate between the scent of the hunter who has already wounded it and the hunter who has not yet done so. Again it may consider the hunter's presence in its particular haunt is, of itself, a declaration of war. The hunter spends his life in stalking game, trying to come on them unawares and then attempts to murder them with a weapon calculated to kill them before they have a chance to retaliate. When the quarry steals a march on the hunter and catches him first it is ridiculous to consider that there is anything unfair, or unsporting, in its behavior. The Mohammedan does not consider it lawful to eat the flesh of an animal which has not been killed by a co-religionist in the authorized way—by

cutting its throat. So when, with moslem followers, one shoots anything, someone generally rushes forward with a knife to kill the animal before it is quite dead. When one shoots a rhino, however, no gallant man rushes forward to perform this rite whilst the animal is still kicking. Either the throat is cut after death, or it is not cut at all. In the latter event they eat the meat all the same saying that the rule does not apply, as the rhino has no neck to speak of.

ONCE, whilst marching some distance ahead of my caravan, I shot one of these animals. After ascertaining that it was quite dead I went up to it, caught hold of its horn and then called to my men to come and finish it. Some of them, seeing me close to the body, came up with knives prepared to go through the farce of cutting the animal's throat

and pretending that it was still alive. As they came near I jerked the head up and let it fall back on the ground calling out "Hurry up, I can't hold him much longer." Whereupon they retired hastily.

The anterior horn is curved backwards and is much longer than the posterior. I have, however, seen a rhino on which the back horn stood some inches higher than the front and must have been about twenty inches—a most unusual length. The horns of the female are much more slender than those of the male and sometimes attain great length, although more often this slender horn gets broken—it then wears down into a short and stumpy one giving little indication of having been once much longer. The broken part of the horn is gradually worn into a point, sometimes by being systematically ground on a stone.

The rhino has on each foot three toes,

each provided with a hoof, or broad nail, which cuts into the surface of the ground and makes the spoor very distinctive. The middle toe faces forward and the side toes outward. The whole spoor looks like the outline of the top of a man's head with large ears on each side. The track of the hind foot is, like that of nearly all animals, narrower than the fore. The spoor is much the same size as that of a hippo but cannot be confused with it as the latter has pointed toe nails.

Some African natives are wonderful at tracking and bushcraft in their own particular localities but, as their skill is the result of instinct rather than conscious thought and effort, they are quite hopeless if taken out of the country they know. In Uganda proper, that is the part of the Uganda protectorate in which the Baganda live, there are no rhino. I took

(CONTINUED ON PAGE 626)

ROOSEVELT AS A STUDENT OF BIRDS

FEW MEN HAVE POSSESSED HIS BREADTH OF KNOWLEDGE OF THE HABITS CHARACTERISTICS AND LIFE HISTORIES OF OUR MANY FEATHERED FRIENDS

By JOHN M. PARKER

THEODORE ROOSEVELT was, and had been from early boyhood, a close student of bird life. He was an indefatigable reader of books about birds, and what he thus learned he verified and supplemented by personal observation. He was amazingly well-posted as to their life habits, the manner of their nesting, the forms of the nests and the way the feathered creatures reared their young. Few men I have ever met have had his breadth of knowledge of the habits and characteristics of birds, and he never lost an opportunity of adding to that knowledge, carefully jotting down in a memorandum book for future reference any details which interested him.

On one of the numerous occasions when it was my privilege to have him for a guest we were making a camping trip along the Gulf Coast of Mississippi and Louisiana. Here there was a wealth of bird-life which offered to the Colonel free scope for his hobby and kept him as delighted as a boy with a new toy. I remember well his tremendous enthusiasm over what was, in truth, a remarkable sight—a colony of Royal Terns we encountered one day which must have embraced, I should say, as many as

100,000 nests. Some of the small islands or shell-keys were so thickly covered with bird nests that it was a difficult matter to walk without stepping on them. Yet in spite of the vast number of these birds, each old one seemed able to instantly identify not only its nest, but its young birds.

All of this section is now under Government protection, and about the middle of June, either late in the evening or early in the morning, one may see the air filled with the white-winged gulls feeding their young on minnows, and even more wonderful, during the heat of the day see some of these small islands,

looking at a distance like a white sheet, since, when the birds are young, the old ones stand over them with outspread wings to protect them both from the sun and the rain.

VERY early one morning we were walking over the divided end of the Chandaleur Islands, and the Colonel stopped suddenly and said, "By Jove! What is this?"

Captain Spreckle, the warden of the bird islands, told us they were two coon traps. A very large coon had been caught by its foreleg in the trap and had chewed the leg off in order to escape. In the other trap a second large coon had been caught and had chewed its hind leg off in order to escape from the trap. The Captain told us that these two coons were the only ones left on the island, and while their tracks were very plainly visible, the keepers had never been able to retrap them or get a chance to shoot them before they slipped into the marsh grass and brush which surrounded the place. He was very proud of the fact that they had succeeded almost completely in freeing the island of one of the worst pests for

(CONTINUED ON PAGE 627)



John M. Parker and Theodore Roosevelt on their way to the bird sanctuaries



LOG CABIN BUILDING

By CHARLES MEAKINS

THIS article makes no pretensions of clashing with recognized authorities, for while having read most of them on log cabin building it has never been my experience to quite adjust the authority with the practical construction of the cabin:—namely, with the help of two competent lumbermen I tried to build one some years ago by the standard authority and found it to the best of my endeavors, out of the range of possibility to make the building commensurate with the approximate cost, plus the authority—the cost being so much greater in the actual building than when written for the amateur builder to try and carry out.

I will attempt to make clear to the lover of outdoors that it is possible for an amateur to build a log cabin in a workmanly way, in the back of beyond, far removed from rail or steamboat transport, cheaply and with every comfort.

My intention in writing this article is to show each step in the construction of a cabin 18 feet by 24 feet, built eighteen miles, from the nearest road, where all material except the logs had to be transported by canoe, carried over two portages and a lumber dam—which, with the help of an experienced woodsman I completed in ten days.

This locality may be more inaccessible than the average and the difficulty of bringing in the material greater, but to any nature lover, the very charm of a wilderness home lies in its being off the beaten track and therefore necessarily inaccessible.

Should your preferred site be on Government property it may be obtained through the State Dept. of Lands, Forests and Mines, for a small consideration. Care is to be taken regarding timber licenses, if any. In my own application to the Ontario Dept. I located a point of two acres, on an inland lake, through the local government surveyor at the county seat, at five dollars an acre—"water frontage on any one location shall be approximately one half the depth" (Government Statute). State and Provincial Depts. are practically the same with minor rulings.

In selecting your plot for building, it is advisable to locate as near as possible to the timber where you are to obtain your logs. This will not be found difficult, as in most sections the "second growth" timber is from 8 to 10 inches on the "butt." From 50 to 55 logs will be required, varying in number according to the size of the logs. This

WE are depending upon the friends and admirers of our old correspondent Nessmuk to make this department worthy of his name. No man knew the woods better than Nessmuk or wrote of them with quainter charm. Many of his practical ideas on camping and "going light" have been adopted by the United States Army; his canoe has been preserved in the Smithsonian Institution; and we hope that all good woodsmen will contribute to this department their Hints and Kinks and trail-tested contrivances.—[EDITORS.]

can be figured only on the spot, but a little calculation will assure the builder as to the number needed for a 9 foot wall. In my own case it required 52 logs at an average of 8 to 10 inches on the butt. In cutting logs make certain of having enough, better a few over, to avoid possible shortage during construction. Special care should be used in getting the straightest trees.

Cut all your side timber 23 feet and your front and back 29 feet—this leaves a margin of 5 feet in the log. This is suggested as it is sometimes necessary

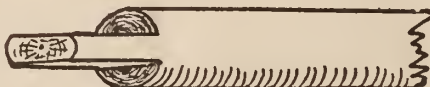
CORNER - NOTCHES.



№ 1. ROUND



№ 2. SADDLE



№ 3. TENON.

to trim the ends to the middle for the log to lay flat on its mate.

If possible get four dry, dead cedar trees to form the first round of your walls. Cedar, placed close to the earth will withstand the weather better than any other timber.

Logs for floor sleepers come next—

seven required of 5 to 6 inch outt and 23 feet long, hemlock or pine preferred. These must be selected particularly for their straightness, as they must be trimmed and flattened without losing too much of the timber. Then the poles for your rafters and joists. These should be about 4 to 5 inches on the butt and 23 feet long, small cedar or pine if obtainable. The rafters should be selected with the same care as the floor sleepers and for the same reason. The joists mean very little and need not be as carefully chosen, as in some cabins only a middle one is used. Personally I prefer one every four feet, making five in all. This strengthens the cabin and enables it to withstand the snow load in the winter. They also improve the appearance of the interior, as well as being a convenience for hanging articles when the cabin is completed.

After felling all the trees, engage a man with horse and woods tackle—i. e. harness, whipple-trees and logging-chain for hauling of logs, which should not take more than one day at most. Place all front and back wall timber directly in front of proposed site, facing what is to be the front wall. Pile on two logs placed at right angles to pile—this is known as a "skid-way." Then place all side logs facing one of your side walls, the reason for which will be explained in construction.

Next remove bark from all logs. This should be done as soon after felling as possible; the bark is easily taken off while the sap is in the tree, but if left for awhile it adheres closely and makes a great deal of unnecessary labor. I have found it an excellent idea for one man to fell and top the tree while the other removes the bark as soon as felled. To do this chip a strip of bark with a draw-knife or axe, the entire length of the log.

Then make what is known as a "spud," with a piece of hard wood 24 inches long and sharpened flat like a chisel, with face 1 to 2 inches wide. Insert sharp end of "spud" under the bark from the butt to the top, and pry up. In this manner it will be found that the bark will come away without much labor.

WITH the logs in position the building begins: First, with a builder's measuring tape, adjust your front two corners and place pegs in position, then from these line the back square. Next place four large flat stones at pegged corners and add other stones to level as necessary. It is preferable to have first

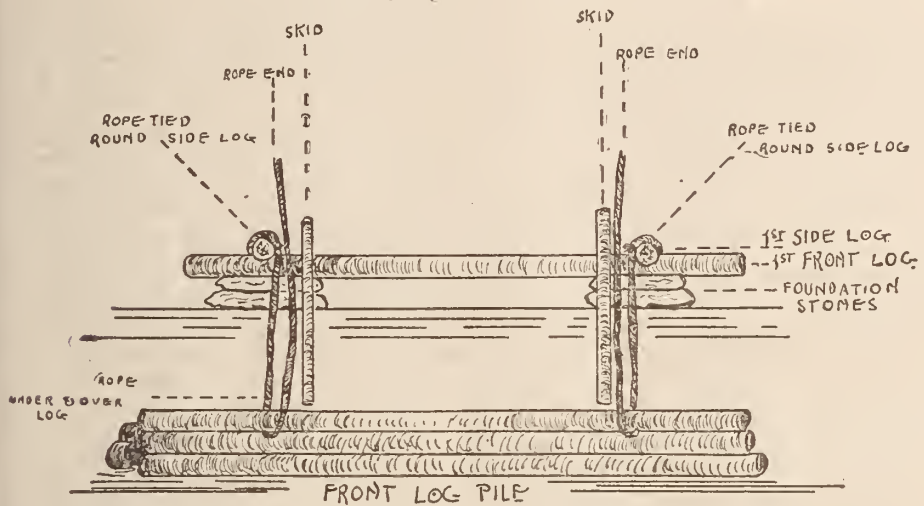


round of logs six to twelve inches above the ground. After the stone foundation is leveled, slightly flatten the ends of

effort, roll on your side logs. Pull up two logs, then saddle and place in position front and back;—now, turn your

Now that building the walls has been explained, we will go back. When rounds are laid as high above the ground as you wish the floor to be, notch logs for your floor sleepers, 3 feet apart, front and back, (as illustrated). No. 5. Not less than 18 to 24 inches should be allowed from the ground. Dig no cellar, as it becomes only a water-hole.

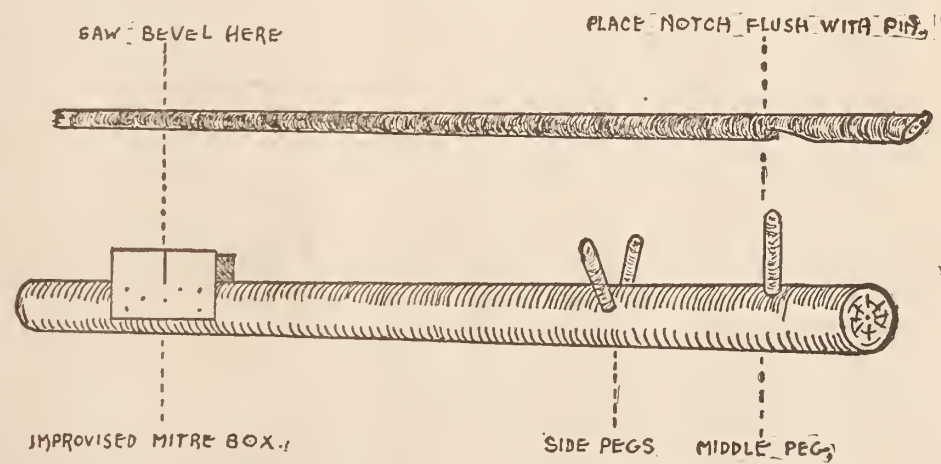
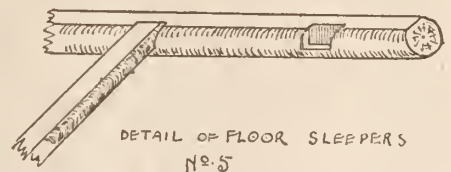
No. 4. DETAIL of PUTTING LOGS IN POSITION



logs selected for front and back and with a "cant hook" or "peavy," place both in position on stone foundation, then true them with care to see that they are squared. Next, cut a round notch in your two side logs to fit over the front and back logs and lay them on the two already placed—and again square your entire round.

It may be well to explain the different corner notching used in building the cabin. There are three styles, "Round," "Saddle," and "Tenon" as illustrated. No. 1, 2 and 3. All are good. I prefer the "Round" as it is simple and having no cut on the upper side, it withstands the weather better than the others, there being no surface to hold water.

After the first round is laid and squared, and your side logs in place, you will have your two piles of timber, one parallel with the front and the other with the side wall, as explained in drawing the logs. The method by which two men can place the logs is this: Have two lengths of 1 inch hemp rope and tie one end round your two side logs, behind where you have saddled them, to the front logs. Take the loose ends and put under and over the ends of a log on your front pile, bringing rope back to corner. Then place small pole on your front log, three feet from each end and directly in front of your pile of timber. Now, each man taking a corner and straddling the side logs, take loose ends of rope and pull. You will find by each pulling evenly, the logs will come up the "skid" and with hardly an



DETAIL FOR SAWING RAFTERS, No. 6

ropes and "skids" to side pile and repeat the operation on the two side logs—and so on till your wall is built. (as illustrated) No. 4. It is of the utmost importance to true each round as laid and also plumb the corners true with plumb-bob line.

Next select the position for your fireplace and build a rough box, from the earth to the floor level, 6 inches larger than your proposed hearth. Fill this in with stones and earth, to the level of the floor joists and pack well while filling. Leave in this state until cabin is completed. Now that floor sleepers are laid, continue building your walls, and when the desired height for the top of your doors and windows has been reached, notch the top log partly through with axe or cross-cut saw. This is to insert cross-cut saw, after walls are finished, to make the opening for the doors and windows. Line both sides of window and door space with plumb-line chalk line and nail a straight edged plank flush with this line. Then outside of plank drive a wedge between each log; this is to hold logs in place after windows and doors have been sawed through and until the frames are built in.

If you are to have a veranda, for your last two side logs select two logs the

width of your side wall plus the width you wish your veranda and lay with top ends overhanging the front wall. This will constitute the first supports of your veranda roof (details explained later). Next lay front and back top logs,

(known as rafter plates) and flatten these to hold notched rafters.

When entire walls are built, take your 1½ inch auger and bore through your top logs into your next round below, four holes to a side, close to the corners and drive wooden pins through the two logs, to insure stability.

After figuring the pitch of your roof, select your rafters and notch them to fit rafter plates, as per illustration. Notches should be placed leaving butt end of log with an overhang of at least 24 inches. The woodsman has a simple and accurate way of cutting the rafters:—take one of your extra logs and bore two 1½ inch holes in the sides, put in wooden pins, four feet from butt of log; then, two feet below these pins place another pin, directly in the middle of your log. After you have figured the length of rafter required, nail two boards on each side of the log and saw the boards, making a mitre the bevel of your gable points. Placing the hewn notch of the rafters tightly against peg in middle of log, saw the poles in the improvised mitre box. The entire sixteen poles will then be accurate (see illustration) No. 6.

IN putting up rafter, first slightly flatten your front and back plates, then, nailing a pair of rafters together, place notches in position on flattened plates, as in illustration No. 7. Standing on side top log, raise rafters in position at end of plate. Prop in position temporarily by nailing pole to side logs, then repeat at other end. Place a ridge pole between the extremes of the two gable points, then, after nailing all gable bevels together, place all rafters in position three feet apart, nailing securely each notched rafter to the plates.

Take roofing lumber and start 8 to 10 inches below the eave and lay your roof up to gable. Next lay your patent roofing, or tar paper, lengthwise of the roof, to gable points, folding three or four inches over gable top.

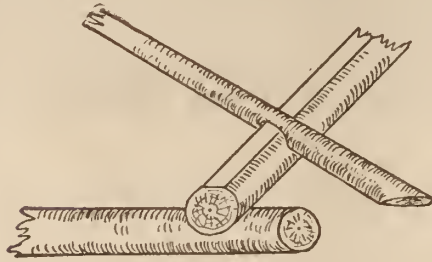
Finish with a "Saddle board" i. e. a long pole entire length of roof, hollowed in a V, invert and nail V to fit gable.

Now saw out your doors and windows. Remove one handle of your cross-cut saw and put saw through notch or saw mark, made when building walls. After replacing handle, saw, using board as straight edge guide. It is possible to build your own door and window frames and sashes, but as those bought at any lumber mill are better and just as reasonable, I would advise purchasing them. They are stronger and add greatly to the appearance of your cabin.

It is unnecessary to explain putting them in, as it is apparent from their construction. After putting them in and before removing the wedges and plank holding the logs in place, spike each log with 6 inch spikes through the side piece of the frames of both doors and windows and into ends of logs.

Flooring can be of any material the builder desires. I used 4 inch tongue and groove bass wood, which, with a coating of oil allowed to dry in and then painted, makes a floor which will wear

like iron and is much easier to keep clean. The veranda is next built. The flooring which is placed on long stringers, running parallel with front of cabin, can be on the level with the interior or some inches lower, as desired. Build up foundation of flat stones at each corner of veranda and place log stringers on these stones. Nail your flooring one-half inch apart across stringers; this



DETAIL OF RAFTER AND PLATE
No. 7

half inch opening enables the veranda floor to be kept clean, as sand and dirt can be swept through.

Now comes the veranda roof. Cut four holes 6 inches on the butt, for uprights; place one long pole underneath your projecting top side logs (left long as described in building) and cutting your four uprights to fit snugly under the pole, nail securely to floor and pole, at outer edge of veranda. Next, take 4 small poles, 4 to 6 inches on the butt and round notch them, 24 inches from butt, to fit pole supported by uprights. These poles should be long enough to rest on the roof of cabin, 4 feet above the eave and must be beveled on the same side as the notch to lay flat on the roof.

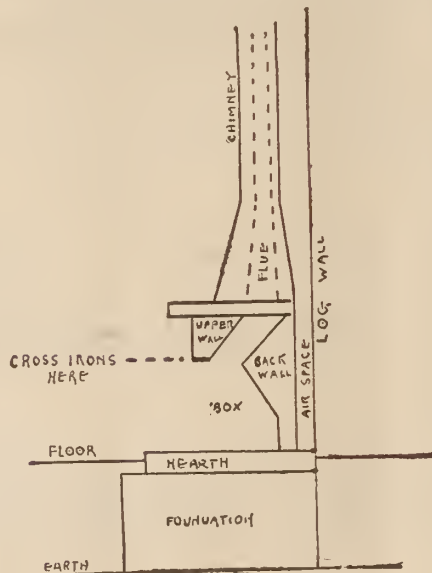


FIG. 8. SIDE VIEW OF FIREPLACE

After nailing rafters securely 8 feet apart, to veranda pole and roof, lay your roofing, starting 6 inches from the butt of the rafters; this will leave an 18 inch overhang.

TO complete the building, fill the space between the logs; this is called "chinking." To do this, take a small cedar pole if obtainable, or small

straight grain pine, 3 to 4 inches, on the butt. Split lengthwise in quarters and according to irregularity of openings between logs, cut your quartered poles to fit as closely as possible, then drive the V of the quartering securely between the logs and nail in place. As the logs are green and it takes six to eight months to season or dry, during which time there is shrinkage, do not plaster the cabin the first season. When logs are seasoned and cabin has "settled," gather moss which is found on the rocks or fallen trees and after leaving in the sun to thoroughly dry, pick apart and with a "spud," caulk the crevices between the "chinking" and the logs. Then if lime is convenient make mortar and plaster over "chinking," inside and out, between the logs. Blue clay if obtainable, can be used in place of mortar.

The fireplace is then to be built. First, directly behind where you have already left hearth box, nail planks to the height of 5 feet, to the back wall, across the entire width of fireplace. Nail only to upper end and do not drive nails fully home. Then take large flat stones for hearth, (the larger and flatter the better) and lay them, as level as possible, in the foundation already in place, in a thin bed of cement and bring hearth one inch above flooring. Lay stones with tops exposed. Next, build a rough box, the shape and size of proposed opening of your fireplace, leaving space in top of box, for the flue and place on hearth stones in position, 6 inches from the temporary planks on back wall, directly in centre of hearth. Next lay stones all around the back and sides of box, cementing as laid, just touching it, but not close enough to displace it. When sides and back are flush with the top of the box, take two flat pieces of ½ by 4 inch iron and wide enough to be laid with 6 inches resting on the stone sides. Lay your top stones on these irons, leaving space for flue, behind the iron supports. These top stones of fireplace should be selected with care; about 4 inches thick and oblong. After covering the entire top, begin to build your taper for chimney around the flue. The chimney can be built of graduated stones to roof. Personally I prefer it away from the wall and straight up from the top of the flue. After cementing the main part of the fireplace, up to the taper for chimney and allowing the cement to set, draw the nails of the planking behind the fireplace and remove planks; this will leave a space of one inch between the back wall of the fireplace and the logs. This insures safety and when stones are heated, radiates more heat than a fireplace which is cut through your log wall, as is usually done.

FINALLY, a word about tools used, materials and mode of transportation. My own experience in transporting material down a 12 mile stretch of lake, a 4 mile haul up a small stream, including two short, but difficult portages and "a carry" over a lumber dam, into the lake upon which the cabin is built, was accomplished in this way: Two

(CONTINUED ON PAGE 630)



SHOTGUN ACCURACY

To the Editor of FOREST AND STREAM:

I NOTE in the September number of your magazine that Mr. L. Mitchell Henry, of New York, has honored your anonymous correspondent "Gaucho"—"the man from Patagonia who knows more about Bolas than shotguns, etc., etc."—so while I quite freely admit the utter hopelessness of prolonging the agony by further correspondence on shotguns with Mr. Henry still I beg permission in their further defense to state as follows:

In your issue for May, 1919, Mr. Henry broadly and flatly asserts that "Double guns do not shoot true to the line of aim along the rib," and in support of this misleading, inaccurate statement goes on to give your readers the reason for having come to such a wild and absolutely untenable conclusion.

As I understand the case it resolves itself into this—i. e., is Mr. Henry justified in making the unqualified statement that double shotguns do not shoot straight, or on the other hand am I correct in maintaining that any and every perfect shotgun must shoot to the centre from both barrels in order to rank as a first class fowling piece?

Mr. Henry seems to lay particular stress on having been fitted and measured by foreign gunsmiths, also to having shot a great deal of game abroad, and while such experiences may add a superficial depth of glamour to the general tone of a magazine article, yet it is palpably irrelevant to the case in point, and, incidentally, I might mention that we have in this country many men who have never seen a try-gun, or an animated gun fitter, yet at any kind of shooting with rifle, pistol or shotgun, easily stand on a par with any the world over. Perhaps Mr. Henry does not know that, so I mention it *en passant* as it were, as an humble offset to what he is pleased to attribute to my knowledge of "Bolas."

Mr. Henry admits having tried an alleged fine gun the left barrel of which at forty yards put the centre of the charge over two feet to the right, also resents my stating that to correct the shooting of an offshooting barrel—casting "off" or "on" the stock is "too grotesque to merit serious consideration." Has any practical sportsman ever heard of casting off the stock of a gun to rectify, mind you, the shooting of one of its barrels? How about the other barrel? Perhaps Mr. Henry has his gun stocks hinged at the grip, so that he may wiggle-waggle them according to the way he desires them to shoot. (Happy thought that!!!)

To sum up the whole question, I will

LETTERS, QUESTIONS AND ANSWERS

ask Mr. Henry to produce one single first class double gun-maker and ask him whether all of his guns shoot off centre—also to come out publicly and state that casting the stock "off" or "on" to rectify a defective shooting barrel is not too grotesque and absurd to merit serious consideration.

Hoping Mr. Henry will pardon the *nom de plume* which I have used for almost forty years in writing to America's foremost sporting papers, and by which I am far more widely known than under my name, I again respectfully subscribe myself,

GAUCHO.

CONCERNING THE COTTONTAIL

To the Editor of FOREST AND STREAM:

HAVING found quite a little difference of opinion among our local hunters regarding the habits of our Iowa wild rabbits or commonly called cottontails, I am writing to ask if you will kindly answer the following questions through the columns of your paper:

1. About what month do they usually start to breed?
2. Where do they usually make their nests—in grass or brush, on high ground or in holes in the ground? Concerning this latter place, there has been some heavy argument.
3. About how many litters of young do they have in one season?
4. How old are the young before they are out and scurrying about for food?
5. Just what causes the grub or hard knot sometimes found near the skin of our cottontails in the breeding season and nearly always found in Jack Rabbits at any season?

E. E. W., Des Moines, Ia.

Our correspondent has asked several questions about the natural history of cottontail rabbits which we will attempt to answer in so far as our available information goes, with the idea that readers of FOREST AND STREAM may be able to add to our knowledge of the subject.

There are a number of races and species of cottontails found in the United States, all very much alike and with similar habits. Technically they are all small hares and differ from the European rabbit, which is a burrowing animal, in that they make their nest in grass or

brush on the surface of the ground. It is true that cottontails sometimes enter burrows, and it would not surprise us to hear of a nest being found below ground, but so far we know of no such case. One first sees young cottontails out and scurrying about, scarcely as large as a man's fist, the beginning of May, and they are probably born in April. The chances are that there is, at least sometimes, a second brood, but the very small ones are generally seen only in the spring. A grub found under the skin of rabbits, especially jack rabbits, but also cottontails, is the larva or maggot of a peculiar fly.

One need not go so far from the FOREST AND STREAM office as Iowa to find things about rabbits which are not well known. On Long Island, New York, there occur two distinct species of cottontails, but we do not know whether both are generally distributed, whether one is more partial to woodland, and which is the more common. The skulls of the two are sufficiently unlike to be told apart, and if sportsmen who kill rabbits on Long Island the present open season will send their heads to the Natural History Editor of FOREST AND STREAM, American Museum of Natural History, New York, with a statement of the exact locality and type of country where they were killed, we will thereby get some interesting scientific information.—[EDITORS.]

LEAD POISONING IN WATERFOWL

To the Editor of FOREST AND STREAM:

A FEW days ago I was handed copy of a professional paper of the Department of Agriculture, Bulletin No. 793, contributed by the Bureau of Biological Survey, and dated July 31, 1919. Its title is "Lead Poisoning in Waterfowl," by Alexander Wetmore, Assistant Biologist.

As I read over the pamphlet's 12 pages its contents seemed familiar and a little effort of memory recalled an article in FOREST AND STREAM of twenty or twenty-five years ago and then a book, American Duck Shooting. In the book I found copied the earlier account from FOREST AND STREAM, which contains essentially all that the Biological Survey pamphlet has, though Mr. Wetmore has spread out his information very thin, taking a dozen pages to express what might have been said as well—or better—in four.

Mr. Wetmore appears to regard himself as the discoverer of these mysteries, though he gives credit to Mr. Bowles and Mr. McAtee for accounts of the trouble published in the *Auk* in 1908. Mr. Wetmore may not have known of the rather detailed account of lead poisoning given in FOREST AND STREAM—perhaps in 1894

or 1895—but if a student of wild fowl habits he might have known of the book.

Perhaps, however, the Biological Survey takes the position said to have been assumed in old days by the *London Times*—that no news had been published until it had appeared in the columns of the *Times*.

Mr. Wetmore's account used a few technical anatomical terms, but except for these words, and for its verbosity, does not differ markedly from the one published twenty odd years ago.

However, he must be given credit for some original research. Thus (1) he fed captive birds some No. 6 shot through a funnel and singular to relate this diet after a time poisoned the birds; (2) he sifted the mud beneath the water about commonly used ducking blinds and found shot in the mud!

We must all bow the head before science and even if these are days of strikes, high prices and—for some people—hard times, I am sure the taxpayers are glad to pay out their money to manufacture a pamphlet containing such nuggets of wisdom.

OLD GUNNER, New Jersey.

HENRY'S LAKE TODAY

To the Editor of FOREST AND STREAM:

AFTER reading the fine article by Mr. Bannon in the September number of *FOREST AND STREAM*, it occurred to me that possibly some of the aspects of the present conditions and attractions of that wonderland around Henry's Lake might be of interest to your readers.

The marvels of the Yellowstone National Park are attracting tourists from every part of the country and each year the number of people traveling in their own cars and camping as they go, is increasing tremendously. But there are very few who know of the wonderful places for the sportsman and sightseer which lie just off the main traveled roads and which are as well worth seeing as the Park itself.

Henry's Lake is truly a paradise for the present day tourists just as it was a center for the big game hunter of earlier years. I think no other stream in the west can boast of the number, size and variety of trout as are found in the Madison River. No lakes in the country can surpass the chain of Cliff Lakes in wildness, beauty, depth or game fish. No other section is richer in relics and traditions and reminders of the very earliest pioneers. So if tourists and travelers can become acquainted with these wonder places through the agency of a magazine such as yours, the pleasure of the trip can be increased many fold and our natural attractions will become as well known as those of other countries.

Less than a score of years after Lewis and Clark had toiled up the Missouri River on their wonderful pilgrimage into an unknown country, and had stopped at the point where three rivers meet to form that greatest of natural highways, Andrew Henry left the trading post of the Missouri Fur Company at the Three Forks of the Missouri and with two companions as brave and hardy as himself,

struck south along the river named by Captain Lewis, the Madison. Just where he was going he did not know, but he knew that any place was better than the hunting ground of the Blackfeet. It was a beautiful country he passed through. A valley many miles wide shut in on the east and west by towering mountain ranges; smooth, sloping mesas covered with rich grasses and dotted with herds of buffalo and antelope, and down the center of the valley flowing a wonderful stream. Where the river turned abruptly to the east and cut its way through a mighty range of mountains, he left the stream and crossing a low, rolling divide which separates the waters of the Atlantic from those of the Pacific, he came to a lake set like a gem among the surrounding mountains and meadows.

And so, Henry's Lake was discovered and named. And we, almost exactly a century later followed this same beautiful valley, crossed the same broad mesas,



On the way to Henry's Lake

covered now with fertile fields and dotted with herds of white faced cattle; saw the river whose rippling surface and deep pools and hurrying rapids were a constant invitation to stop and fish; looked at the same lofty peaks whose towering summits pierced a sky of incomparable blue. And we came to the Lake. It was just the same as when Henry saw it a hundred years ago excepting that now, the meadows around its southern and western shore are marked with stacks of hay made from the luscious grasses, and here and there may be seen a rancher's cabin or hunter's lodge along the shore of the lake.

We drove into the yard of the famous Bower's Ranch and were met by the owner of that truly typical western mountaineer's home. He helped us to unload our car and conducted us to the cabin which had been reserved for our party. "And now," said our host when we had made ourselves comfortable, "I reckon you are ready for something to eat. The

bell will ring in about ten minutes." And such a dinner. Vegetables in profusion of variety freshly gathered from the garden near the house; milk and cream ice cold from the milk house built over the mountain stream; great rainbow trout baked to a turn and best of all, appetites sharpened and stimulated by a day of riding in the crisp mountain air.

In the glow of such a sunset as can be seen only in the high altitudes of the Rockies, we followed a trail through the pines and aspens down to the margin of the lake. Jack snipes darted from the little grass covered stream which tumbled down the slope, and a mother grouse with her brood of almost full grown birds scurried into the trees at our passing. As we came through the willow screen which borders the lake we could scarcely credit our senses at seeing such myriads of water-fowl. The lake, which at this point is shallow and full of moss, was literally covered with ducks, of apparently every known variety, larger birds which we took to be loons, pelicans, and riding majestically on the water farther out, were two swans. Here and there in this shallower part of the lake were little islands, some covered with tules and rank grass, others having dense clumps of willows—ideal places for the duck hunter. Farther out the lake stretches in unbroken miles of deep water, the home of the largest and gamiest trout found in the west.

"See that bunch of pines off there to the north?" said Raymond Bowers. "That is Lavinger's Island. He built a cabin there longer ago than anyone can remember and trapped and hunted on the lake. His idea was to protect himself from the Indians and I guess he was about right." Later in our sojourn at Henry's Lake we rowed across the mile of water smooth as glass and visited Lavinger's Island. In the center of a grove of pines centuries old and surrounded by a dense growth of aspens, willows, kinikinick, wild raspberries and wild roses were the remains of the old trapper's cabin. The logs were decayed and crumbling; the dirt roof had fallen in and large trees were growing out of it; almost obliterated blazes on the pines showed where frames had been built on which to hang the deer or elk he had killed or to stretch the skins of beaver, otter or bear caught in his traps. The trail leading into this deeply hidden rendezvous was entirely overgrown and lost, but we found the remains of a corduroy road he had built to bring his ponies across from the mainland when the water of the lake was low.

An hour spent in the museum at Sherwood's store half a mile from Bower's Ranch showed us almost every species of animal and bird in this section of the west. The specimens had been mounted by Mr and Mrs. Sherwood and exhibited a high degree of skill in taxidermy as well as showing years of incessant and careful work in collecting. A group of mountain goats, which the boy who was our guide informed us came from the Bitter Roots, made us think that here, perhaps, was the last

How to Soften Your Beard

Yet Avoid Slow, Harsh Ways

The Facts About Shavaid

To men who find shaving exasperating, we offer here a new freedom. A better, quicker, simpler way which, once tried, you will never abandon. And we back our statements with a Free Trial Tube, so that you may be completely convinced. The coupon brings it.

THIS is to urge you to try — for your own sake — a new shaving method. A way which has already won the friendship of thousands of men the country over.

Your trial of Shavaid, we promise, will be a revelation. For most men have come to the conclusion that shaving would always be a task.

Read here what Shavaid does; then — if these things appeal to you — let actual proof decide whether you can be content with the old tedious way.

Saves Time and Trouble

Merely apply a thin coat of cooling Shavaid to the dry face. Then the lather which needs no rubbing in. Then shave with real comfort.

No need to copy the barber's preparations. He uses hot water, hot towels. He rubs the lather in. Yet, when he is through, there is irritation. So he applies lotions.

Harsh, harmful ways of treating the face should be avoided. They age the skin. Wrinkles come too early. The skin becomes leathery.

The Shavaid way is the comfort way. It is scientific, the result of countless experiments and tests.

Shavaid

Softens the beard instantly

—apply to dry face before the lather.

Saves time and trouble

—no hot water, no "rubbing in" of the lather.

Protects the face

—skin remains firm and smooth.

Removes the razor "pull"

—harsh ways age the skin prematurely.

Replaces after-lotions

—Shavaid is a cooling, soothing balm.

More Than a Time Saver

Shavaid, of course, appeals chiefly because it saves time. But it does more than that — it saves the skin. While softening the beard instantly, it also forms a protecting layer over the cuticle. The skin remains firm and smooth.

The razor glides over without pulling, without scraping the skin. Abrasions are not so frequent.

The closest shave causes no discomfort.

When you use Shavaid, you can discard the after-lotions, for the sources of mistreatment are gone.

Try This Luxury Shaving Method

The coupon below brings you a Free Trial Tube. Send for it now. Then see if you want to adopt Shavaid.

We are sure it will delight you, amaze you, and that you will never shave again without it.

And you will tell your friends of this better way.


Shavaid, only recently introduced nationally, brought orders from dealers everywhere. Get it at your nearest druggist for 50c a tube.

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At Druggists—50c a Tube

BAUER & BLACK, Chicago, New York, Toronto

Makers of Sterile Surgical Dressings and Allied Products



Free Trial Tube

BAUER & BLACK, Chicago, Ill.
Mail free trial tube of Shavaid to

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City State.....

14A

Harper Books

THE RIDER OF THE KING LOG

By Holman Day

Holman Day is at his best in this tense story of love and loyalty, treachery and intrigue, set against the background of the Great Woods. The romantic adventure of life itself stands out stark, clean, alluring; the tang of the pines is in its pages, the spume of the churning forest streams, the zest of keen forest air, the lure of danger. *Illustrated.* \$1.75.

THE YELLOW TYPHOON

By Harold MacGrath

The Yellow Typhoon is a woman, a strangely wicked woman who, it develops, has a double as good as she herself is wicked. There are stolen papers, a breathless chase across the Pacific from San Francisco to New York, and one thrilling incident after another, before the story reaches its astounding denouement. \$1.60.

THE FIRST PIANO IN CAMP

By Sam Davis

Everyone in the West knew Sam Davis and his story that is now put into book form for the first time has made for itself a position almost like that of Bret Harte's "The Luck of Roaring Camp." It has been translated into many foreign languages. Thousands have laughed and cried over it. *Illustrated.* 16mo. 75c.

TALES OF FISHES

By Zane Grey

Among deep-sea fishers Zane Grey stands out almost as conspicuously as he does among novelists. Many adventures have been his, and most of them are told in these fascinating true tales, which are fully illustrated with delightful photographs taken on the scene of action. *Elaborately Illustrated.* \$2.50.

HOW ANIMALS TALK

By William J. Long

Do animals talk? Dr. William J. Long says they do, and his assertion is based on long and scientific observation. He believes in the common spiritual inheritance of animal and man, and he shows us the great affinity between them by showing us the real selves of the animals. *Illustrated.* \$3.00.

BILL SEWALL'S STORY OF T. R.

By William Wingate Sewall

With an introduction by Hermann Hagedorn

Bill Sewall, the guide, who was Colonel Roosevelt's friend for almost a life-time, has made, in his own way, a record of this wonderful friendship. This quiet, simple man from the Maine woods saw an entirely different side of T. R. to that which he handed down to history. *Illustrated.* Post 8vo. Half Cloth. \$1.25.

HARPER & BROTHERS

Established 1817

resting place of the famous mountain goats owned by Dick Rock many years ago.

"Have you ever seen Cliff Lakes?" Bowers asked one morning. No, we had not seen Cliff Lakes nor had we ever heard of such lakes. "Well," continued our genial host, "there is a place you don't want to miss. There aint one person in a hundred who comes here who ever heard of Cliff Lakes, but I'll tell you there aint anything to equal them in Yellowstone Park or anywhere else." So we went to Cliff Lakes. A drive of eleven miles across the rolling hills on a road smooth as a boulevard, a short climb through a gently sloping canyon, a glide down a long dugway into a little valley, down which a beautiful mountain stream went tumbling into the lake, and there we were.

I shall not attempt to describe these lakes, nor can I give any explanation of the geology of them. They are inexpressibly wild; in places they are immeasurably deep; excepting at the point where we came in, they seem to be almost inaccessible. Quartzite cliffs rise sheer from the water's edge hundreds of feet. The peaks of submerged mountains appear here and there on the lakes making little cone shaped islands. The water is so clear that trout may be seen swimming about at a great depth. We were informed that soundings had been made to a depth of over nine hundred feet at one point and no bottom found. There are three lakes in this chain, the two lower ones smaller and shallower than the upper one, but deeper in the mountains and more densely wooded along their shores. An afternoon of rowing on this wonderful body of water, lunch on the gravelly beach of a little cove in the rocks, revelling in such beauties of nature as it is given few mortals to behold, the row back in the deep shadows of the towering cliffs, an hour's ride back to Bower's Ranch and we had the memory of a day which will stand out among all other days as the most wonderful—the greatest of all.

T. R. KELLY, Montana.

AMERICAN CANOE ASSOCIATION

THE following changes are proposed in the Racing Rules of the American Canoe Association:

Rule II, Sec. 4. Last paragraph to read, "Not over three-quarters of the sail area shall be carried by one mast."

Rule XII, Sec. 1. Second line, change to permit "Sailing Canoes" to compete for the "Record."

Rule XIII. Add to the present Rule, the following: "Sailing and Cruising Canoe Trophy races to be scheduled to be sailed, weather permitting, as follows:

SAILING CANOE TROPHY

First Heat on Thursday afternoon of first week.

Second Heat on Monday morning of second week.

Third Heat on Tuesday morning of second week.

CRUISING CANOE TROPHY

First Heat on Thursday morning of first week.

Second Heat on Monday afternoon of second week.

Third Heat on Tuesday afternoon of second week.

Proposed Amendment to By-Laws

Chapter I, Section 1.—*Membership.* Application for active membership shall be made to the Treasurer, and shall be signed by the active member proposing same and accompanied by the endorsement of the Vice-Commodore, Purser, and one member of the Executive Committee of the Division in which the applicant resides, and by the sum of three dollars (\$3.00)—one dollar for entrance fee and two dollars as dues in advance for the current year. If the Treasurer also endorses the name of the applicant he shall be declared elected and a certificate and card of membership shall be issued by the Treasurer; if not, the Treasurer shall return the applicant's three dollars to the Vice-Commodore with his reasons for non-endorsement and the Vice-Commodore shall send the refund to the applicant, accompanied by an appropriate notice concerning the Association's action. The remainder of this section not changed.

Section 2.—*Dues.* Each subsequent annual payment shall be two dollars and shall be payable January 1. The remainder of this section not changed.

SAMUEL B. BURNHAM,

Secretary.

IN THE NEW ALLEN-WATER COUNTRY

(CONTINUED FROM PAGE 590)

I missed getting more than a goodbye shot and failed to score on a big buck wearing the finest antlers I ever saw, although he stood in an old trail less than fifty yards ahead and waved me adieu with his proud flag, as the guide, who, seeing his grey statue, was in the act of directing my attention; and then how the very next day another chance shot through a windfall filled my license when it dropped a fat little spike buck; about the almost daily catches of pickerel and jackfish, many of them large enough to deserve stories of their own; the feasts of boneless pickerel with hashed browned potatoes and moose and venison cooked every way known to sportsman or Canadian guide; or I might undertake to describe the thrill of the call of a cow moose a few rods up wind from me as I came plodding along under the weight of my little buck, over a portage on the last trip out with the last installment of game and outfit; or about the evening I shot the brush wolf, when I had tarried too long during the late afternoon playing hide-and-seek with a big bull moose and his consort, trying to photograph them, as usual, without success. Verily, each of these incidents alone would take a whole chapter; but this is a magazine story, not a book. It was a distinct privilege to be the first sportsman to hunt this small section of Ontario's big game paradise. You will be able to appreciate what I have written when you go there and find one of my old tin cans.



A stringing shot that let four birds get by

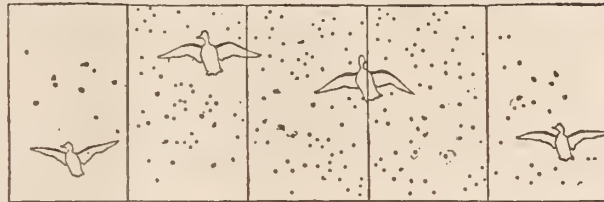
ALMOST every hunter has had his share of "unaccountables"—those unbelievable misses where aim was true but bird got by.

Real bona-fide "unaccountables" are due to faulty, patchy patterns or bad stringing. The insert shows how a bad stringing shot can miss four big birds flying in close formation.

Bad stringing and patchy patterns always go together. They lose more birds than any other gun faults.

Where weak, stringy patterns persist regardless of the high quality of shell used, the trouble can be traced to defects in the gun barrel, the chamber, bore and choke.

Faulty chambering even more than faulty choking tends to mash and "ball" the shot, making the pellets fall short or fly wild. And



The aim is just ahead of the leading bird. Only 10% of the charge is there to meet the bird when it flies into the pattern. 25% or 30% of the charge crosses the bird's line of flight after it has got by. The two center birds are flying too high for the bulk of this shot, and get by through the holes in the thin pattern. Only a sprinkling of shot falls around the near bird.

if a gun is faulty in its most vital part, the chamber, the chances are that the bore is also carelessly made.

From chamber to choke, the barrels of the famous Winchester Repeaters are bored to make the shell throw its highest pattern. They are free from shot-jamming defects. They let the shell do its full work.

"Line" test the barrel

Point a Winchester barrel toward the light and look through the bore. It looks like a highly polished mirror. Not a false shadow throughout the bore. Sight through the bore at a horizontal black line on the window. This line will throw a "V" shadow in the bore. Tilt the barrel till the point of the "V"

touches the muzzle. The perfect "V" shows absence of irregularities. This is the "Line" test of a perfect bore. No faulty barrel can pass this test—the "V" will be distorted.

What means

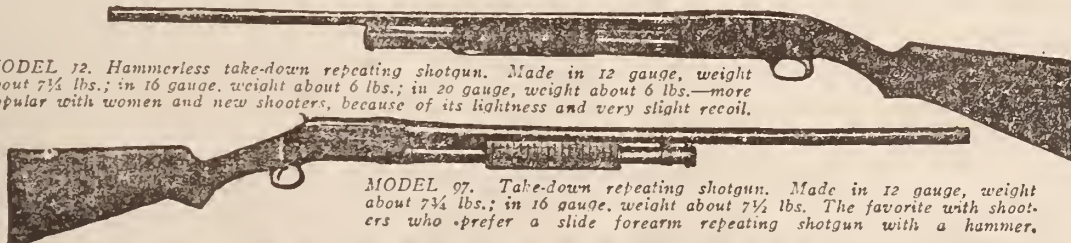
This mark on a Winchester barrel means that the gun has passed the "Winchester Provisional and Definitive Proof" test, having been fired many times for smooth action and accuracy, and strength-tested by firing 25% to 40% excess loads.

Your dealer will show you Winchester guns and ammunition

Before you take to the woods this fall, get your dealer to show you a Winchester Repeater—Model 97 for hammer action, Model 12 for hammerless. Your sportsman's instinct will tell you it's the best weapon you could choose. Leading hardware and sporting-goods dealers in every community carry Winchester arms and ammunition. They will be glad to assist you in selecting the gun best suited to your needs. Upon request, we will mail you free of charge, a complete catalog on Winchester Guns and Loaded Shells.

Winchester Repeating Arms Co.
Dept. 808 New Haven, Conn., U. S. A.

MODEL 12. Hammerless take-down repeating shotgun. Made in 12 gauge, weight about 7¼ lbs.; in 16 gauge, weight about 6 lbs.; in 20 gauge, weight about 6 lbs.—more popular with women and new shooters, because of its lightness and very slight recoil.



MODEL 97. Take-down repeating shotgun. Made in 12 gauge, weight about 7¼ lbs.; in 16 gauge, weight about 7½ lbs. The favorite with shooters who prefer a slide forearm repeating shotgun with a hammer.

WINCHESTER

World Standard Guns and Ammunition

A circular logo with the text "REMINGTON UMC" inside.

The Particular Woodsman

THE two things the American woodsman has always been most particular about are his axe and his rifle.

For more than a hundred years, to him the name Remington has stood for a good rifle. And the world over, rifles have never had a better judge.

**Remington
UMC**
for Shooting Right

Your woodsman friend or guide, whom you would depend upon to pick you out a good axe, will respect your choice of a modern Remington UMC Autoloading or Slide Action Repeating Rifle.

In fact, you are very apt to find him proudly cradling the mate of it in his arms, when he meets you this fall, ready for the deer trails.

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MOOSE AND THE WAY TO CALL THEM

(CONTINUED FROM PAGE 585)

great shoulders. Heeding the guide's warning to shoot low, you press the trigger. While the wicked whip of smokeless powder tears the frosty air asunder and goes jostling about from rock to rock and up against the far away ridges with a roar, your moose makes a quick flinching jump, a couple of long strides, stumbles, and comes crash upon his nose and horns. "Good shot!" chuckles the guide, "right through the heart, shake."

MUCH has been written about the sportsmanship of moose calling, pro and con. Personally, I consider it the acme of sport. Let those who have decried it make a long trip after moose during the calling season and be unlucky enough to have the weather stormy and windy; perhaps not a still evening or morning fit for calling, and their opinion upon the subject will materially change. The slightest breeze is nearly always fatal to success. Moose invariably take advantage of the wind to scent you. A moose may sometimes stand and gaze at you with wonder and surprise to satisfy his curiosity. Just one faint sniff of the "man smell" and away he goes. It is astonishing at what a distance he can locate you with his wonderfully accurate nose.

A word about calls and a few DON'T'S. My friend, Mr. Boylston, introduced the *papier maché* horn here in Nova Scotia. I have one and like it. Ed. Sullivan, one of our best guides, uses one and if he could not get a duplicate would not part with it. The very clear bore seems to send sound to a great distance. Celluloid is said to be even better but requires more care as it is easily broken. Nearly all Nova-Scotia guides use the birch bark call. It is easily made and will stand any amount of wet and rough usage. Some use a longer horn than others and the size of bore also varies with individual tastes. A long horn seems to send sound better. A man with a coarse voice generally has a preference for a long horn with a small bore and *vice versa*.

Don't select your calling place near running water, the rumble and babble of which will interfere with your hearing. Don't call from high ground at night time, as a moose will always approach from low ground at night and if you look down at him it is almost impossible to see plainly enough to shoot with accuracy against a back-ground of woods. Lastly, don't insist upon your guide calling when he decides not to. He knows when it is or is not fit to call.

Here's good luck to all real sportsmen. May you be fortunate in having a good guide and frosty mornings during the approaching "calling season" and may you come back with a higher appreciation of the art and sportsmanship of moose calling.





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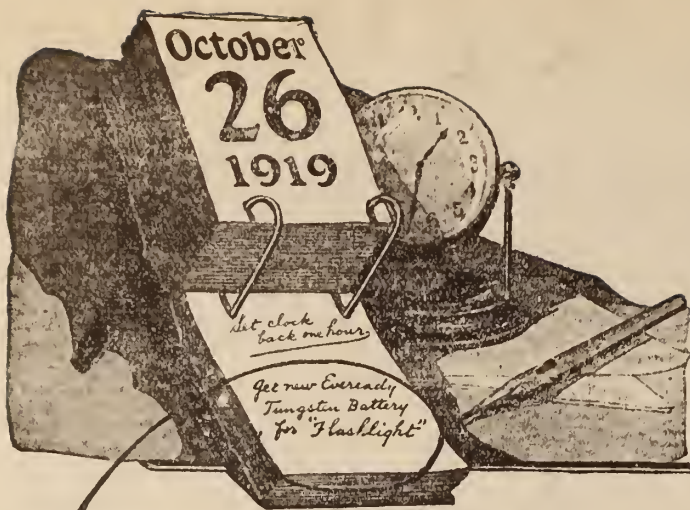
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CATCHING AND SPEARING SUCKERS

(CONTINUED FROM PAGE 599)

"Thought a blacksnake was after him sure," he said. "If you get 'em headed away from the water they'll jump clean across a field cryin' like babies. Gosh, didn't he go? Frogs is nachul born fools anyway," he continued, "you can ketch 'em with a little red rag tied to a fishin' hook an' swing it in front of 'em. The first time it passes they'll stretch up an' their eyes'll bulge out 'nen when it comes back, plo! an' you got him. They allus comes with both forefeet holdin' tight to the sides of their heads like an old woman with the headache. Gosh, but they look funny."

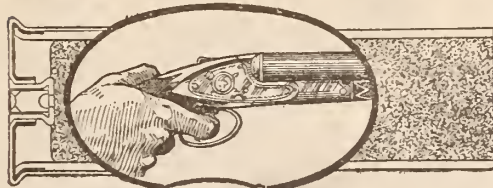
BEFORE reaching the place where they were to begin fishing they crossed a small brook on a log. As they did so, several fish of nearly a foot in length went swiftly upstream, their backs making a decided wake in the shallow water. "Are they trout?" asked Mr. Woodhull excitedly as he watched them go. "Naw," said Matt in disgust, "them's on'y chub suckers—chubs we call 'em. They're no good 'cept to throw sticks at an' see 'em go. You allus see 'em in shoal water 'nen they dodge an' hide. Two men who was fishin' here las' summer called 'em 'stone rollers'; what for I don't know. They said you could take a red raspberry and put it on a small hook an' thread an' float it down-stream just 'fore dark an' the fish would grab it; meb' they was stringin' me. But," he added, "if you did you would on'y be swappin' good raspberries for nothin' but bones." The lads similes were sometimes crude and usually quaint but always wholesome and carried points for reflection. "This is where I gen'ly try first for 'em. Sometimes they're here but they change about a lot; there's holes all down-stream from here. You allus find 'em where the water don't run swift an' where it just turns round'n round, washin' in the things they feed on, I guess. I don't put the hook clean through the worm, just loop it through 'bout twice an' let the end hang down an' wiggle. They see it better; 'nen I move my cork a few inches at a time 'till the hook swims clear of the bottom. Suckers is allus feedin' there, you never find 'em near the top." The two seated themselves on the grass, which was flecked here and there with patches of cow-slips and violets. Across the creek, clusters of primroses nodded in the gentle summer breeze. All nature seemed at rest and the soul of the man cried aloud for joy. He was living close to nature's heart now and she was paying him in coin richer far than mined gold in the way of returning health. He was seeking no sensational catch of scaled beauties that early summer afternoon. He was only in quest of the humblest of fishes; yet a very Paradise of beauty and repose was all about him. Besides the boy was there, a cheerful setting of enthusiasm and freckles. "I've got a nibble of something," he said quietly, and the attention of the lad was drawn from

where it had been riveted on the gyrations of a large hawk above the adjacent swamp. "That ain't no nibble," he said quickly, "that's a sucker bite. Pull up! They never bite no more'n that." When he raised his pole he realized a fish was hooked. Then he saw a gleaming side flash the length of the pool, then round, slowly back and forth and come to the surface. Not a very game fish for one of two pounds, still it was catching fish and a kind he had never caught before. He examined with a good deal of curiosity the peculiar mouth which was under its chin and very small for such a sized fish. It was heavy with spawn which exuded when held in the hand. "That fish would be up the brook tonight layin' her eggs," said Matt, "an' if all the eggs should hatch an' grow the brooks couldn't hold 'em; must be a lot wasted somehow." Two more fish were taken from the same pool and when no more seemed to be there they moved on down the stream to where the brook ran in, where, as Matt said, they would go "giggin'." Here a large pool was formed by the action of the waters meeting and several large fish were taken. Mr. Woodhull, getting foul of a snag or root, lost a hook and later on Matt had the same experience.

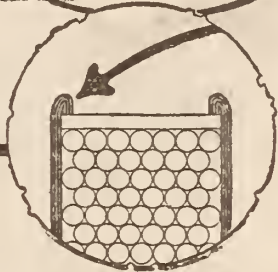
"What do you use for making your light when spearing fish?" asked his companion, as night was drawing on. "That's what I brought the hatchet for," was the answer. "Right across from where we are is an ol' pine stump, many a lot of fat I've got from her," and going over on a log which lay across the creek he was soon at work splitting such pieces as he needed. Returning he then worked them up finer and when satisfied with the result put the fat pine in the bag, after shaking out a pair of dilapidated shoes he had put in at the shed. "Keeps my feet from gittin' snagged when wadin'," he said.

WHEN all was ready they leaned their poles against a tree and then crossed over the creek, going to where the brook emptied and then Matt made his fire on the jack, using small splinters to start with and larger ones as the fire took hold. "Don't have to have a big fire, he said, as he stepped in the brook, "just enough to keep it bright. You walk along the bank an' hold it just so the light is in the center. Keep it a little ahead of me an' when I say 'hol' on,' why stop. There's some bushes all along, you'll have to go round 'em an' I'll ketch up." They had not proceeded far when Matt gave his signal, "The's two right ahead," he said, "stan' still with the light," and he moved with caution through the water. Suddenly he poised the spear and plunged it sharply into the water. There was a splash and a good sized fish was thrown out on the bank. "Kin you see 'em?" asked Matt eagerly, as more fish moved out into the light. "When you do, keep it right over 'em an' they'll stop." Fish after fish was taken and Mr. Woodhull grew enthusiastic over the sport, fully as much as when taking them on the hook. The excitement of spotting them with the light and then seeing them

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struck with the spear was exhilarating. Here was a man who only a few short weeks before was almost an invalid, now threshing around in the night, shouting like a schoolboy over success or failure of a stroke of the spear at a brook sucker. At Matt's suggestion each fish, when thrown out, received a sharp rap over the head. "So it will be where we leave it when we come back," he said, "as we can only gig upstream, the water is too riley to work back, 'sides the fish would be working the wrong way." While arranging the light, Mr. Woodhull asked the boy what use he could make of so many fish at one time. "Why, I allus get somthin' outen 'em from somebody who wants fish at this time of the year. Before the water gets too warm they are good and they will tak 'em at some price. "Hol' your light right still now. See that big frog? I'll pick him right up, see?" and suiting the action to the word he held up an immense frog, struggling hard to get free. "Ain't they the dummies ough?" he asked. In shallow water the reflection of a bright light on the back of a fish gives off a bluish glare and makes a prominent mark for the spear. "I guess we've got enough," Matt remarked, "the goin' is harder on up, 'sides we won't want to carry any more. Bet we've got fifty pounds now. The's no eels around tonight much," he added, "ain't seen but two and they were small ones. Sometimes the's plenty.

So back they went on the same course, gathering the fish in the old bag, their jack giving plenty of light for the purpose. Matt had crossed the creek in advance, carrying the fish and had put them down when Mr. Woodhull heard a startled scream from the boy and he threw up the light in time to see Matt's body disappear from view in the murky waters and an indistinct form go scurrying across the meadow.

(TO BE CONTINUED)

DUCKS AND A DAY OF RECKONING

(CONTINUED FROM PAGE 595)

catch the faint light. It told of thirty more endless waiting minutes; so we settled ourselves with shells in places convenient for a quick blind snatch.

Morning's dusk, under the cloud mantled sky, faded as imperceptibly as mist from a breathy mirror; and only the assurance of watches corroborated sunrise. One string of flying ducks, risen high up from some inland water hole, showed plainly that the going overhead was heavy, fighting their progress slowly with ranks tossed out of formation very often. Our eyes followed them eagerly, hopeful of stragglers falling out; but they flew apparently tireless into specks vanishing into the grey east.

With lightning suddenness, whirring wings whistled close over and we writhed about to see three black ducks flaring wildly among the decoys, when their sharp eyes caught our movements. I shot hastily into what I hoped was their general direction without the satisfaction of a single feather. This was certainly an evil beginning! We tossed out empty

shells with sad reflections concerning that vigilance which finds its only dividends over decoys. The advice of my old guide, Bill, recurred to me, "Gun over stool, lad, you can't look 'em out o' the sky." It had been oft repeated, and his interest was fully as keen as ours. Every moment of that first morning flight was tense with fresh expectancy drawn from new flocks in sight. Most were struggling into the east, but scattered birds, westward bound, clearly indicated that demoralization had already wrecked the day's even tenor of duck plans.

Both of us gave warning of that first pair simultaneously as they swept up from the left. With eager necks bent to decoy and red feet extended water-ward, they dropped swiftly in on set wings. Double crashes of smokeless powder stopped both in mid-air to fall heavily in upshooting geyser splashes. Out of the corner of my eye, as I reached for the shoving oar, I saw Pardner whirl to shoot again at a single, flying wide, which had been coming—unnoticed to join those first incomers. At forty yards, Joe managed to pattern one pellet and that bird fell wing-broken on the island behind us. I pursued and despatched him as gently as might be,—though that humane cruelty always was bitterly distasteful. Meanwhile our first two had drifted a surprising number of yards. Pushing out to them was easy, sailing before the wind, but fighting back was a breathless struggle which left us spent, though gratefully warmed. Three blacks were these glossy fellows whose ruffled feathers were smoothed and shaken free of clinging drops before being stowed away.

NEXT came a single broadbill, exceedingly anxious to swim among our company, for he flashed out of nowhere and splashed among the decoys before we could shoot. Up I came to cover him, waiting for his jump. But that mad broadbill paid no heed to my sudden appearance. He even found occasion to peck his displeasure upon a stool which blew against him, while my muscles began to ache with tense preparedness. Joe thumped the boat. Instantaneously the duck realized that I made a most unwholesome bit of perspective. Away he shot and I punctuated his going with two wicked exclamation points, shot slashing under and after, constituting two absolutely perfect misses. I felt inclined to hurl the gun behind him, too, when certain sarcastic comments heaped insult upon injury. Joe had not even bothered to get ready until too late.

Ducks either flew owing to mere feathered discomfort, or, perhaps, east winds work madness in wild-fowl minds. At any rate, that blustering gale banished wisdom of hunter's ways out of duck instincts. Before the sun was two hours old, flocks commenced to appear out of that same east in which, on other winds, they tarried whole days through; this time to pay toll to waiting guns. Hardly a moment passed without hollow reverberations booming from distant shots, or the sharp cracks of nearer ones. Singles and small bunches were constantly in motion. We enjoyed a succession of shots

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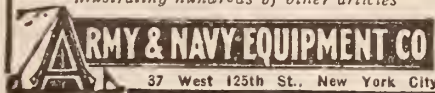
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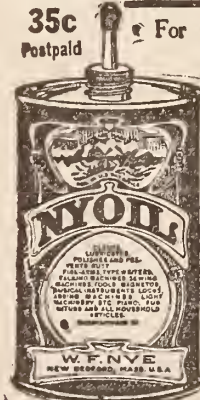
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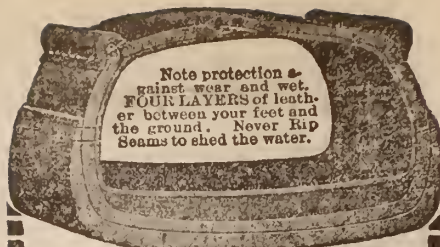
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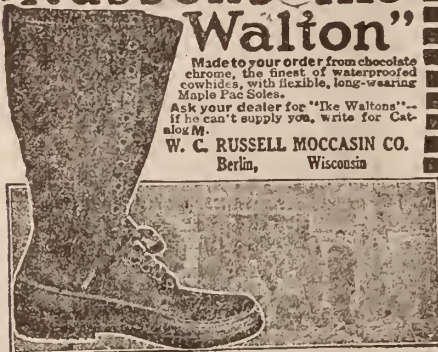


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at wild birds passing close over at full speed. Driving like bullets before the gale, ducks whisked past often without warning from behind, leaving us staring in open mouthed astonishment. Mental calculations of lead and swing were forgotten in quick flashing snap shots at whistling shapes which tarried not upon the order of their going. Out of six chances, we found occasion to push out but once for two redheads which fell as our guns rang out together.

Towards noon, five pintails swung in our direction, from the west. Twice they traced nerve racking great circles far out of reach before deciding to come within gunshot. Twice we gave them up for lost only to have expectations revived. We were muscle bound with tension while peering through the thatch, before they made a third decisive circle and bent to decoys, long necks outstretched. As two leaders crossed my sights, I snatched consolation for former bungling by dropping both with one shot and killed a third towering away. Revenge was especially sweet because Pardner missed once and cut only an unsatisfactory tuft of feathers with a second.

Midday brought its usual slackening of flight, though we killed two more singles at widely spaced intervals. Occasional drifts of broadbill swung over the bay, or shifted in swift streamers, close above the waves. Low tide left shallow water which lay quieter and less uncomfortable on the flats. Hardier birds found refuge there.

Battery shooting was wind-blown impossibility and no machines were set to drive them. Gulls circled high and wide, in apparently aimless manoeuvres, plummeting down, occasionally upon some unsuspecting morsel. We took this opportunity to stoke the inner furnaces with lunch.

WITH the tide shift, birds flew again, driven from shallows by new flickering whitecaps. Scurrying bands of broadbill flashed by at intervals, but their chosen courses carried them wide to other gunners, whose luck had placed them under the line of travel. Speeding down wind, those beves of broadbill volleyed across those other decoys without thought of stopping. From where we lay some hundreds of yards distant, we could see vanishing smoke flashes and hit birds parabolizing down, before the salvaged reverberations echoed across.

Our envious watch was interrupted when a weaving rabble of brant sent us down, hidden low, as they wavered toward our blind, chanting boasts of their species. Hot pulses of excitement waved over me and the cold wind-whip vanished. The flock, coming straight for our bobbing decoys was lowering. Larger they came until lighter undertrimming marked clear against darker plumage. I gathered my knees under me as the leaders' down-bent necks betrayed a bit of rash inquisitiveness. Then gun-fire from those shooters below us crashed out. Our brant wheeled up and off, bearing no further injury than stinging stray shot rattling off hard feathers. While our eyes followed them into vanishing distance, we found scant solace in saying harsh things

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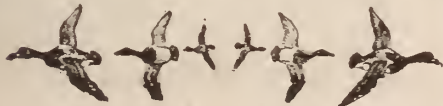
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about shooting courtesy and sportsmanship in general.

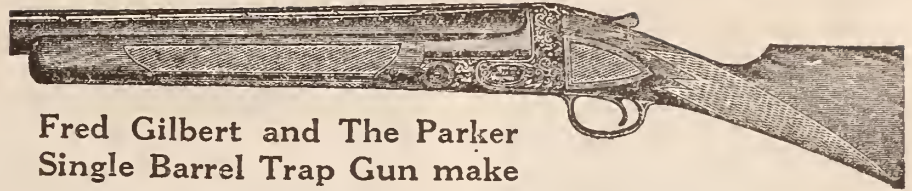
Black duck, in large numbers, stirred from one point to another, restless in that heavy chop and stinging salt spray. All afternoon, passing birds kept us tense and thrillingly warm, as they flew close. One pair and a single came to crumple in mid-flight when our guns cracked, adding three plump bodies to the bag stowed under the bow. Larger flocks swung around us, only to veer away under the urge of cumulative subtle instinct. We lived about fifteen tingling minutes when five lit in a small cove some ninety yards distant and commenced to work closer, kicking their stubby sterns heavenward and exploring subaqueous food supplies en route. Unfortunately they decided to accompany some intimate acquaintance elsewhere.

With a slight slackening of wind, about three o'clock, came a fine driven, misty rain that quenched with its all pervading wetness even the glow kindled in the tinder of excitement by close flying birds. We had mutually decided to call it a day when a fitting climax came to frame its close. Far our against the sky, a smudge showed, too steady for drifts of wind torn smoke, yet very like it. Quickly growing more distinct, it dissolved into separate dots, an oncoming swarm of hurtling atoms, swift growing into outstretched duck shapes, as they sped as only broadbill going down wind can. Directed upon an unseen path, they flew straight on while we held close. Then, by the fraction of a point, the leaders swerved to our decoys and we rose to meet them. I covered one rocketing shape and pulled. Upon my mental picture was registered astonishment when a bird behind grew limp in its fall. Three times I fired and snapped a fruitless fourth at one who limped a bit in his going. Joe, too, was firing with lightning speed. I counted five down as we jumped to the business of retrieving. Partner jammed his gun with a damp shell while reloading. He grabbed mine just in time to shoot-over one sturdy fellow reviving from his shock of shot. These blue billed chaps all dive too cleverly. In spite of my herculean thrusts with the oar, one escaped our fire, kicking his sudden way under, to rise with no more than a black bill-tip showing, invisible in that choppy sea. How wholeheartedly I admired his iron courage, and my regrets with regard to his escape, were chiefly because he was hit at all. We could afford generosity.

WE gathered our decoys and chugged home through driving rain squalls to a crackling fire, doubly grateful after that drowned world. There, while we puffed contentment before the green flares of burning drift, our day of days in the marshland was lived again with happiness untempered by even those flagrant misses. Fortune may withhold such another all our lives, yet, while we muse in the quiet hours, we have that day to build our dreams upon.



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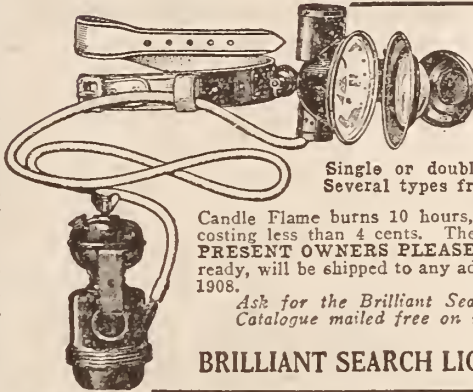
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ON A FURLOUGH AFTER BOB WHITE

(CONTINUED FROM PAGE 597)

began, it was far to the left of where we had marked them down. Just one more bird was kicked up and poled over out of that whaling covey; where the rest went to—ask the huckleberry bushes under which they probably hid! It was too hot for the dogs to wind 'em.

"Well, when do we eat? enquired Herman at length, "The front of my belly's right down on my backbone!"

"Same here!" agreed Cap. "Mine's shrivelled up to golf-ball size.

"Chow!—Oh you chow wagon!" sighed Stick, with the cavernous emptiness of a lost soul, "Lead on, Jeff—I could eat a raw loon!"

It seemed pretty well established that the party was in a mood to eat Jeff himself, if he didn't do something about it right danged sudden! So he led us to his cabin, where his pretty wife set out wonderful coffee, bread, eggs, canned peaches—oh, you famished huntsmen! We had done about five miles since sun-up, not counting time out for hunting dead birds, walking up on beavies and general scouting.

"Well, men,—up and at 'em!" exclaimed Cap. at length, after an hour of loafing and smoking in Jeff's cabin, "Jeff, lay us your course to wind up at our camp by nightfall."

"I know a good chain of fields that'll take you right there!" said Jeff, "and there's at least four coveys in 'em; not counting the one back of your place, which we will save for the last."

He started off down the road, and presently we were lined out across the fields, with the dogs galloping ahead. Along the pine borders of one, undergrown with thick, bare oaks, both dogs



The white streak is Jim!

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dropped to the crouch that means their nostrils have struck quail scent. We ran up on the double. A long period of roading followed, for these quail had done feeding long ago and were dozing somewhere in the thicket. Then—out of nowhere, up jumped a single and lit out for a clump of catbriers. Herman blazed away and missed, and then Stick and I let go as one gun,—and there hung the bird,—what was left of him—pinned neatly to a catbrier thorn! Just why a bunch of rabbit-gobbling gunners consider this an occasion for elaborate laughter is not perceivable, but we yelled with Berserker hilarity—a double wipe for poor Herman's eye! And, just then, the covey took a hand and jumped up in a whizzing bunch—and Jeff's gun was the only one that said anything!

Herman set out after them, hotfoot, determined to achieve a double by way of revenge. Stick and I went after a couple of singles which had soared across the field, finding Jim staunch on one, which we nailed. Meanwhile Herman's gun boomed, and after considerable time he and Jeff rejoined us, and "dar wuz quail," in his bulgy pockets. But, if we were to eat that night, the Scourge felt it his duty to produce the needed rabbit, so he set out for camp, where Field was, no doubt, yelping out his soul, in durance vile in the pumphouse.

IT was now well on towards mid-afternoon, so we got the cameras to work recording the events of this shoot. Mike had a bad attack of modesty about this time—in fact, did you ever know a dog to pose when you wanted him to? The white streak is Jim, who wanted that quail more than he did any picture of himself, however beautiful!

Half a mile further on we got into another field with a bevy in it. Jim stood in a beautiful setter point, frozen solid, his eye glaring, his nostrils quivering. It was a hot scent, and there was some class to Jim, so I risked a picture. The birds were good; in fact, they didn't get up then, or any other time! Such is quail shooting! Instead, out popped a bunny rab, and we keeled him over amid shouts of laughter. We had one on the Scourge, no matter what befell.

But Jim-dog wasn't satisfied. There had been birds here, somewhere, sometime, and he was going to see about it! Over in some pines he ducked again, and the Bearded Lady went over for a look-see. Presently the welcome cry, "Here they are!" brought the rest up on the run, and we edged up on them, guns at ready. It was a small bevy; about ten, but we took four birds out of it.

Circling through more fields and patches of woodlot, we finally arrived at the old chicken field near camp. As the dogs showed no signs of game, the Bearded Lady pushed on into the pines, in the hope that they might be in there. Stick and Jeff remained outside. Five minutes later there was a spunk of guns, and pellets of lead rained all about me on the leaves. Then came the birds, whirring through the woods on every side. One threw up his wings and started to light in a low bush. I planted the

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tubes on him and blew him clear through the bush, just to help him along. By the time he was found and pocketed, Stick's gun barked, over to my left, and a dead quail tumbled through the tops of a scrub oak. Pushing on, we soon came clear through the patch to the marsh, without putting up any more singles. I opined that they were hid in back behind us, and so lay down in a pine grove to wait, while Stick went back to camp. In a quarter of an hour came the hen whistles; here, over to the right; there, in that thicket to the left. They were all around me! I got up and poked along slowly. Mike and Jim-dog had gone back with Stick, so it was go it alone.

Then, up jumped a bird, with the suddenness that they are capable of. He gave me a snap in the twilight, and that started the rest. Picking up the slain, I browsed on home—the end of a perfect day!

WE decided to go on to Wading River on the morrow. I have canoed down it several times. It is a pretty trip, through about 60 canoe miles of wild pine and cedar country, with never a house and only a few bridges. In November a few years ago, where the bulge in the river at Wading River bridge makes a lake several miles long and a mile wide, it was full of ducks and lily pads. Now, as Stick was duck hungry, we decided to try for ducks there, and it only needed Herman's vote to make it unanimous.

Soon there came a yell out in the gloaming, and I dashed out madly with the fry pan—and, lo and behold, the Scourge held up a bunch of quail, instead of the well-known molly that we expected!

"That will do for you!" said I, "Next stop, Wading River for ducks. Are you on?" He was.

Wading River proved somewhat of a disappointment. It was as wild as ever, but although we scouted the whole east shore of the bulge, not a single duck did we see, nor any flocks trading up and down the river. Where they all went to that year, is beyond me. On the way back to camp, which we had left "as is" in Nowhere, we got another rabbit out of a deserted farm yard. Field ran him in the classic manner, in and around the deserted buildings grown up with weeds and shrubbery, and finally he dashed across an open space, where the Scourge reduced him to possession.

Him we ate, that night in camp, and next day sent the car rolling northward, for it was Sunday and the furlough was up and the rest had to get back to their various greasy grinds. As a quail country, South Jersey was an agreeable surprise to me. I have gone further,—much further,—and fared worse!



JAMES ALEXANDER HENSHALL

(CONTINUED FROM PAGE 601)

said: "Yo' dun eat yo' suppah, Ucle Petah, long time ago."

"Cum heah yo lyin' yaller rascal; bring me mah suppah."

Then Henry approached cautiously, with his knees knocking together like a culprit who expected and deserved condign punishment, said:

"Uncle Petah, yo dun eat yo suppah, I cross mah breff; luk at de bones in yo lap, and de gravy and rice on yo whiskahs and de grease and de skin on yo han's; and yo didn't leff nuthin' fo me. Gib me a quartah, Uncle Petah, so's I kin go ashore and get sum suppah."

"I'll give yo de mos' torn down lickin' yo eber had in yo life, yo yaller rascal." Then partly convinced by the evidence, but still skeptical and not entirely satisfied as to the cause of the qualms of his stomach, he said:

"Heah' a quartah and hurry back; hit don't seem's I had anytin' to eat fo a month o' Sundays; git plenty."

DURING the next winter I made a business trip to Rome, Ga. Although a small town, then, there was no lack of enterprise, and Georgia was always considered a wide-awake state. A strap iron railroad had been built along the bank of the Coosa River from Rome to Kingston, which was on the "State Road," running from Atlanta to the south. A small locomotive had been built in the local machine shop, which with a passenger coach and a combination baggage and freight car constituted the train which made a daily trip to Kingston and return.

Having finished my business, several passengers and myself started on a Sunday morning on the little train bound for Kingston and the North. Among the passengers was a son of John James Audubon, the father of American Ornithology. He was soliciting subscriptions to his late father's magnificent works.

The night before we started was quite cold for Georgia, with rain and sleet, which rendered the track very slippery in exposed places. The small engine not being equipped with a sand-box, our wheels often whirled around without purpose or benefit, so that our progress was exceedingly slow. A good deal of chaff and fun was indulged in by the passengers at the expense of the good-natured conductor and engineer.

"Why don't you have a cow-catcher on your engine?" asked one.

"Never saw a cow on this road I could catch," replied the engineer.

"Ought to have one on the rear end to prevent the cows from running into the train," said another.

"Will we have time to do a little fishing in the Coosa?" asked one.

"This must be a tri-weekly train," volunteered a big man, "if it can't go one week it will try to go the next."

Then a negro with a bundle on a stick over his shoulder overtook us, and the engineer, who knew him, shouted:

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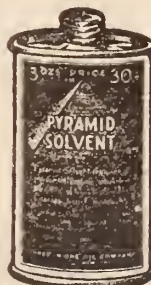
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"No, tank yo Cap'n," said Sam, "haint got time; got to mek c'nection wid de State Road. Yah! Yah!"

Sam passed on and was soon out of sight around one of the many bends of the river and railroad. When at last we arrived at Kingston Sam was standing on the edge of the platform and shouted:

"I dun tol' yo, Cap'n; if de State Road wuz on time yo'd bin leff, shuah. Yah! Yah! Yah!"

I arrived in Atlanta that night, and the next morning I started north for Baltimore through the valleys of East Tennessee and Virginia. Late in the afternoon our engine broke down beyond the possibility of immediate repair. There was no prospect of pursuing our journey until the arrival of the train next morning, so we were compelled to make the best of it, and best it proved. The accident happened near a small station known as Max Meadows, where there was a freight depot.

In the meantime the people of the neighborhood became aware of our plight, and with characteristic southern hospitality resolved to make our forced stay as pleasant as possible. The word having gone out, the farmers and their wives and daughters came riding or walking to the station from several miles around. They brought with them cooked provisions, bread, rolls, cakes, butter and milk. The ladies soon had pots of steaming coffee and tea on the station stove. A long table was improvised which was soon filled with a really tempting supper, of which we all partook liberally.

After supper and when everything was cleared away and packed up, some negro fiddlers were requisitioned and the floor was cleared for dancing. Everyone entered into the spirit of the occasion, and we danced until broad daylight, and only gave up the merry round when the whistle of the approaching train was heard. Then the aged preacher of the neighborhood, who had been very active in promoting good humor during the evening, offered up a prayer of good will for all, and closed by saying: "Inasmuch as ye did it unto one of these, ye have done it unto me."

(TO BE CONTINUED)

THE BLACK RHINO OF THE LADO

(CONTINUED FROM PAGE 605)

a party of Baganda porters over the Nile and into the Congo where we met many rhino and saw their tracks everywhere. We were there a couple of months but none of the porters ever learnt to distinguish either the animal itself, or its spoor, but always reported them as elephant.

SOME of the rhino found in East Africa have on their flanks deep grooves alternating with ridges. There is a good specimen of this kind now in the London Zoological Gardens. At first sight it appears as if the animal is emaciated and that his ribs are sticking through his hide. In point of fact these hard ridges are not immediately over the

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ribs but run at an angle to them; yet each one is as hard and stiff as if it were actually encasing a bit of bone. As far as is known at present this is peculiar to animals found in one particular part of British East Africa.

In spite of their thick skins rhino often suffer from terrible gashes and wounds. The former are probably rips from the horns of their kind, made whilst fighting. The wounds and sores which are nearly always found, especially on the softer underside, are probably due to numerous tick bites and the birds pecking and tearing them out. I once met a rhino that had a gash extending almost from the spine to the belly—nearly half the circumference of the animal. It is difficult to imagine how it could have got such a gash as this, even from the most vicious rip of a horn.

Numbers of scarab beetles are found in rhino country and when one is killed and the intestines cut out one generally hears the booming of large scarabs, doubtless attracted by smell, approaching in quantities. They alight near the body and immediately busy themselves making up and rolling away balls of dung. There are an immense variety of these with different numbers and shapes of horns, or with crowns, or crests, of spikes. There is one particular beetle which has a horn which is a miniature facsimile of the anterior horn of the rhino itself.

ROOSEVELT AS A STUDENT OF BIRDS

(CONTINUED FROM PAGE 605)

Interfering with bird-life of various kinds.

On this same morning, as we walked up to one of the sections of the island, that was more or less covered with sand and grasses, I turned to the Colonel and told him to follow us. We went some 30 or 40 yards away, where we told him to get busy digging. He looked up with a quizzical expression and said that of course he was soldier enough to obey orders immediately, although he didn't know what we were after. Still he would do his best. It was a rather comical sight to see him digging away in the sand with both hands, and after he had gone down some distance, to see his arm slip into a cavity and see him open up a turtle's nest with eighty-four fresh turtle eggs which came as a real delicacy for our table.

The large green sea-turtle nests on these islands and is very careful to smooth over the sand and to eliminate, as far as possible, all of its tracks in order to prevent discovery of its nest, but in place after place, we found where the same old coons to which I referred before, had discovered and robbed the turtle nests, as well as the bird nests.

ON three different occasions, we saw some birds which some of us were unable to identify promptly, and in one instance, a pair of birds which one of us had never seen before. The Colonel immediately reached into his pocket, got out his memorandum book, noted the circumstances and the varieties of the birds, but



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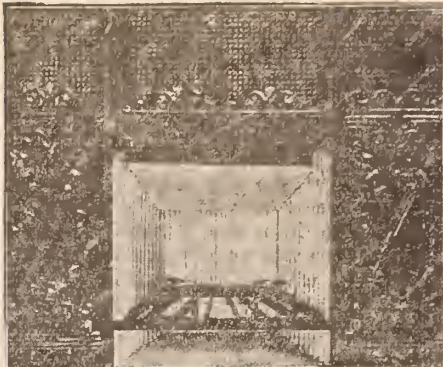
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did not say much in regard to them. When we returned home, in looking over his memoranda he remarked that he wished very much he could find a copy of "Audubon," as he felt certain these birds were strangers and for some unknown reason, had merely stopped on their long journey to the far north. I told him I had a complete set of "Audubon" and took him into the library. In a few minutes he was as triumphant as a school boy. "I was right," he said. "I knew it, and it was very remarkable to have seen anything of this kind in this country and especially these birds, which older hunters and experienced men had never seen before."

On another occasion my sons were running around on a little island and presently began waving for us to come over. We immediately answered. When we got close to them, we saw them pointing to a bird on the ground, blended so well with oyster shells and debris that it was almost invisible unless you watched unusually closely. They motioned to the Colonel to step up to the bird, and as he did so, it flew off its nest, fluttering along the way a great many birds do, simulating being badly wounded or crippled in order to lead us away from its nest. It was a Bull Bat or Nighthawk, and as the Colonel glanced at the nest, he remarked, "By Jove! This bird is hatching now."

Herbert K. Job, the nearest and possibly the most famous bird photographer in the world, came in answer to our call, and fixed up his old green shade from which he made some wonderful pictures both of the bird returning to the nest, and then how we scared her off the nest. He made pictures of the two little Bull Bats breaking the shell of the egg, and to see the eggs divide was wonderful and interesting. Mr. Job photographed them with patience and a total disregard of mosquitoes or other conditions.

THE evening we returned to Pass Christian, the Colonel went around my yard with a great deal of interest, and announced that he had found nests of twenty-seven varieties of birds. One in particular interested him very much—the Crested Flycatcher. I told him that the bird had nested there since I had had the place, and that only a few days before, had raised an entire brood of young ones which were now flying around the yard. He immediately asked me whether I had ever investigated the nest carefully myself. I told him no, and asked why. He stated that he had never found a single nest of the Crested Flycatcher that did not have in it a shed skin of a snake, and said, that he would like very much to see whether this nest, way down on the Gulf of Mexico, could be an exception. We got a ladder, and I took the nest out. Instead of having one skin in it, there were two, to his very great delight and joy.

My boys raised practically all the chickens we needed, and at the time of the Colonel's visit, we probably had 600 or more in the yards. Nearly all of these were hatched in incubators, and then given to capons because we found that the capon was a very much better mother

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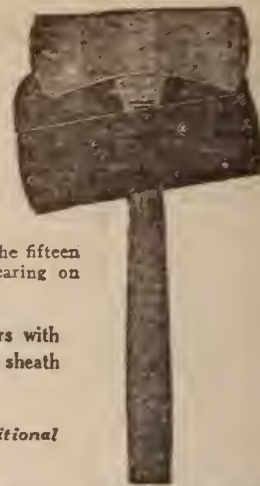


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WHITE COLLIES, BEAUTIFUL, INTELLI- gent, refined and useful; pairs not a kin for sale. The Shomont, Monticello, Iowa.

GUN DOGS

BLUE BLOODED POINTER AND SETTER shooting dogs, brood bitches and pups. Trained where there are birds to be killed over them and by a man that knows his business. Wildfield Farms, Amite, Louisiana.

DOGS—FOX, COON AND RABBIT DOGS FOR sale. Satisfaction guaranteed. R. F. Looker, Elkton, Virginia.

EIGHT IRISH SETTER PUPPIES, THREE dogs, by Mike McKnight—Luttrell's Patsey Melone; whelped June 16; all dark red and of the best in Irish setters; dogs \$20; females \$15; all papers sent with puppies. P. R. Luttrell, Alluwe, Oklahoma.

FOR SALE—HOUNDS AND BIRD DOGS, broken and unbroken; 20 head fine 6 to 8 and 12 months; long-eared, white, black, tan hound puppies. \$10.00, \$12.00, and \$15.00 each. One big black and tan coon, opossum and skunk hound; 4 years, \$75.00. Wm. L. Lockart, Vandalia, Illinois.

HUNTING DOGS—RABBIT HOUNDS, FOX hounds, coon, opossum, skunk, squirrel, bear, deer dogs, setters, pointers, farm, pet dogs. Browns Kennels, York, Pennsylvania.

RABBIT DOGS, \$5 UP. FINE BLOWING horns, \$1 up. Free trial. Photos, testimonials. Stamp. Kaskaskia Kennels, F8, Herrick, Illinois.

FOR SALE—GOOD ENGLISH, IRISH AND Llewellyn setter pups and dogs; also Irish water spaniels, Chesapeake Bay retrievers and pointers in pups and grown dogs. Good stock, prices reasonable; enclose stamps for descriptions. Thoroughbred Kennels, Atlantic, Iowa.

FOR SALE—POINTERS BY HAL KENT, 5 months old. The world's best breeding. Nominated and enrolled. Richmond Pointer Kennels, Hampton, Mississippi.

FOR SALE—POINTERS, SETTERS AND wire-haired pointing Griffons. Some thoroughly trained, high class field dogs. Young stock for sale. Vinton W. Mason, Cambridge, Massachusetts.

FOR SALE—WELL TRAINED ENGLISH setter dog, 26 months old; worked by a professional dog man. Fast and wide; very obedient; extra good nose; not spoiled in any way; \$35.00 or offer. He's a beauty; weighs 52 lbs. L. E. Durand, Collinsville, Oklahoma.

THE BLUE GRASS FARM KENNELS OF Berry, Ky., offer for sale Setters and Pointers, Fox and Cat Hounds, Wolf and Deer Hounds, Coon and Opossum Hounds, Varmint and Rabbit Hounds, Bear and Lion Hounds, also Airedale Terriers. All dogs shipped on trial, purchaser alone to judge the quality. Satisfaction guaranteed or money refunded. Sixty-eight page, highly illustrated, interesting and instructive catalogue for 10c in stamps or coin.

GUN DOGS WANTED

WANTED — A THOROUGHLY TRAINED shooting dog that retrieves, breeding no object. D. Ross Capps, Amite, La.

HOUNDS

"COON, FOX, RABBIT HOUNDS," SQUIR- rel and opossum dogs, young hounds, pointers and setters. (Stocks) Grisham's Kennels, Wheeler, Mississippi.

COON, MINK, OPOSSUM, SKUNK, FOX, squirrel and rabbit hounds. Large list sent free. W. P. Burrow, Pochontas, Arkansas.

FOR SALE—AT ALL TIMES. HOUNDS FOR any game. Trial allowed. Send stamp for list. Mt. Yonah Farm Kennels, Cleveland, Georgia.

FOR SALE—BLOODHOUNDS, BEST EN- glish stock. Trained and untrained hounds. Will tell you what I have on request. M. C. Morrison, Rocky Mountain Kennels, 1241 High St., Boulder, Colorado.

FOR SALE—BROKEN BEAGLE AND RAB- bit hounds, \$25.00 each. Broken coon hounds, \$50.00 and \$75.00 each. Broken fox hounds, \$25.00 up. Hillside Kennels, Box 56, Toughkenamon, Pa.

FOR SALE—FEMALE RABBIT HOUND, fair trailer; not gun shy; price \$12.00; also pups. McClellan Leinawcaver, Newport, Pennsylvania.

FOR SALE—FOX AND RABBIT HOUNDS. Bird dog, rabbit hounds a specialty. Stamp if convenient. Stissing Stock Farm, Bangall, New York.

than the ordinary hen usually does. We have been conducting quite a number of interesting experiments by having bantam capons take care of and raise not only broods of chickens, but guineas, and in one instance, turkeys, which was merely a joke. We then tried the experiment of raising pheasants with them because the guinea and the pheasant both follow the parent until the following spring. Not only was the Colonel deeply interested in watching these birds, but carried a number of photographs home with him. He also took one of the little bantam capons with a varied family, consisting of a Brahma chick, a Plymouth Rock and a white Leghorn and three little bantams.

LOG CABIN BUILDING

(CONTINUED FROM PAGE 608)

canoes are placed far enough apart so the lumber can be laid across them, similar to a catamaran. If piled until gunwale is about 4 inches from the surface you will find it is possible to carry 1000 feet of lumber, allowing space in the stern of each canoe for a man to paddle. We made three trips taking one and a half days, carrying on the first trip 1000 feet of lumber, on the second \$19 feet and all doors, window frames, and sashes complete and on the third trip, brought in cement, patent roofing, tools, etc. If you have all material at head water before building is started, you can select any day, wind and weather being the only factors, to bring the material in.

TOOLS

- 2 broad axes
- 2 peaves or cant-hooks
- 1 draw knife
- 1 three foot rule
- 1 spirit level
- 1 chalk line
- 1 auger 1½ or 2 inches
- 60 feet 1 inch hemp rope
- 1 cross-cut saw (6 feet)
- 1 hand saw
- 1 tape line
- 1 steel square
- 1 plumb-bob
- 1 brace and bits ⅜, ¾, 1¼ inches
- 1 whet stone

MATERIALS USED AND COSTS

619 feet matched bass wood (floor and gable ends) at \$25 per M.	\$17.80
200 feet pine veranda flooring, dressed one side.....	4.50
1000 feet hemlock roof sheeting..	17.00
4 windows, 2 door frames at \$3.00	18.00
2 doors (solid—not panelled) at \$3.00	6.00
4 window sashes and glass at \$1.20	4.80
5 bags Portland cement at .80.....	4.00
13 rolls 2 ply patent roofing at \$1.75	22.75
Nails, spikes and misc. hardware..	5.00

LABOR

1 man 10 days at \$3.00.....	\$30.00
1 man and horse 2 days at \$5.00...	10.00
Camp supplies, food for labor, etc.	15.00

Entire cost \$154.55

This table shows the actual costs of building my cabin several years ago. Add considerably to these prices nowadays.

A MANUAL OF WILD-FOWL SHOOTING

(CONTINUED FROM PAGE 593)

flight the duck will fly into the charge. The point of aim should be yards, not feet, ahead of a duck passing at fairly long range. Very few birds indeed are missed by "leading" them too much, many are lost by shooting behind them.

Sculling for ducks is an interesting form of sport to those who prefer pursuit to ambush. A small, light boat is used. The decks are covered with rushes or grass to conceal it and hunter within from the sharp eyes of the ducks. The hunter propels the craft by working an oar from the stern. Much skill is often required to get within range of a flock on the open water. Although this method is not productive of as many birds as shooting over decoys, it is exciting sport, nevertheless, where experience plays a large part and where there is opportunity for healthful exercise.

The shooting from a line of boats and the tolling of ducks with dogs will be described in connection with the birds so taken.

Sailing after ducks was a method used on the Long Island bays and elsewhere, but this form of pursuit was found to drive the fowl away. It is now generally prohibited.

SEA-DUCK shooting calls for warm flannels, heavy corduroys, rubber boots and water-proof coats and caps. The clothing should by all means resemble the marsh grass or other natural cover in color.

It was the fashion some years ago to use large gauge guns and large shot in hunting ducks. The guns and sizes of shot used today are generally smaller. 8-gauge and 10-gauge guns were the popular bores in the past. Even the mighty 4-gauge was used at ducks, as well as in swan and goose shooting. It is admitted that these big guns, loaded with heavy charges of powder and large shot did do wonderfully effective work on the wild-fowl. But there were many more ducks then than there are now. Sportsmen did not consider game conservation then, nor did there seem any need for it as there is today.

The 4-gauge is practically never seen today. The 8-gauge is generally confined to a few blinds on the bays and sounds in shooting geese. The 10-gauge is more often seen but even this gun is fast giving ground to the standard 12-gauge. There are now laws in some states prohibiting the use of guns larger than the 10-gauge.

The 12-gauge is large enough for general purposes. A strong shooting, full-choked gun of this bore will, in the hands of a good shot kill enough ducks to make the bag limit as now provided by law in many states. Smaller gauges than the 12 are sometimes used in shooting ducks but with the use of these guns there is always the chance of wounding birds which may not be recovered and a sportsman wishes to kill outright every bird shot at if possible.

Number 4 or 5 shot is the proper size for the sea-ducks. Where the shooting

is at unusually long range or when there is a very strong wind blowing, number 2 or 3 will prove more effective. The velocity of the heavier pellets is greater, they are less effected by a cross-wind, and the killing range is increased.

On the other hand, the smaller pellets make a better pattern and the chances for striking the duck in a vital spot is increased. I have used B B shot and 2's on the sea-ducks, and at other times as small shot as number 7. From 3¼ to 3½ drams of powder is used in the 12-gauge, and as much more as the gun will shoot to advantage in the 10-gauge.

A retrieving dog is sometimes used in duck shooting. The Chesapeake Bay dog is the best for this purpose. This breed is a powerful water-dog, able to stand the roughest weather and coldest waters, and to find a wounded duck or goose in the thickest rushes. These dogs are owned by some who shoot on Chesapeake Bay, Currituck Sound and elsewhere. They are trained to remain motionless in the blind until ordered to retrieve.

The wild ducks pass through the United States in the early spring on their way to the North where they build their nests and rear their young. In the West many ducks breed within the northern boundary of our states, while many more go far within the Arctic Circle.

It was formerly lawful to shoot ducks in the spring, but this practice was extremely destructive and unsportsmanlike and has been prohibited throughout the country. With the stopping of spring shooting, the number of ducks which breed within our borders is increasing each year.

In the fall the ducks, with the young of the year, return to the United States and move on southward with the advance of winter and the freezing over of the waters.

The number of ducks which formerly came to the bays and sounds along the coasts is almost beyond belief. Flocks of countless thousands were a common sight and there were often acres upon acres of birds resting on the water. In the West, in the great marshes and lake regions of the interior, the ducks were as plentiful as they were along the coasts.

Today they come in sadly depleted numbers, but they are still abundant in certain sections. With the passing of wise game laws and, what is more to the point, with the ever-increasing willingness of American sportsmen to give these laws their full co-operation, the ducks have a fair chance to hold their own, if not to re-attain their old numbers.

In the forthcoming articles the different varieties of sea-ducks will be considered. [EDITORS]

SPORTSMEN'S HEAD-QUARTERS

SPORTSMEN all over America will be interested in the unique "Sportsmen's Headquarters" which has just been opened in New York, on Fifth Avenue at 40th Street. It provides a

FOX, COON, SKUNK, OPOSSUM, RABBIT hounds; broke and unbroke pups. Swine and pet stock from the garden spot of the United States. Catalog 6c. F. Kiefer, Lancaster, Pennsylvania.

KENTUCKY'S PRIDE KENNELS OF FALMOUTH, Ky., offers for sale fox, cat, wolf, deer, bear, lion, coon, opossum, varmint and rabbit hounds. Also youngsters, all of the best breeds. All dogs shipped on trial, purchaser to judge quality. Satisfaction guaranteed or money refunded.

TWO FINE RABBIT HOUNDS, \$15 EACH. Also young hounds that are trailing, \$10 each. H. C. Sparks, West Union, Ohio.

WESTMINSTER KENNELS, TOWER HILL, Illinois, offers coon, skunk, opossum and rabbit hounds on ten days trial. Dogs just beginning to trail ten dollars. Choice pups. We take Liberty Bonds and War Savings Stamps.

MISCELLANEOUS

SIX LLEWELLYNS, 3 to 9 MONTHS OLD, choicest of breeding, close up to Mohawk II and Count Whitestone; large, healthy, farm raised puppies, nicely marked; sure to please and sold on approval. V. J. Michalek, Victor, Iowa.

MISCELLANEOUS

BEAGLES, BROKEN RABBIT HOUNDS, puppies, coon, fox, skunk dogs, covies, rabbits. Trial. M. W. Baublet, Seven Valleys, Pennsylvania.

FOR SALE—RABBITS, ALL KINDS; PEDIGREED STOCK. Thoroughbred coon and fox hound pups. John Julius, Norman Station, Indiana.

FOR SALE—REGISTERED ENGLISH BULL dogs. J. R. Mayo, Cedar Falls, Iowa.

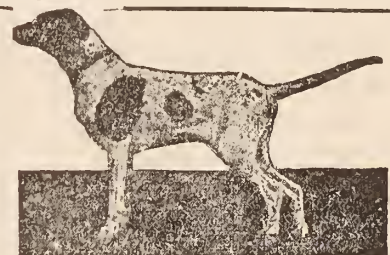
HOUNDS AND HUNTING—MONTHLY Magazine featuring the hound. Sample free. Address Desk F, Hounds and Hunting, Decatur, Illinois.

MANGE, ECZEMA, EAR CANKER GOITRE, sore eyes cured or no charge; write for particulars. Eczema Remedy Company, Dept. F., Hot Springs, Arkansas.

NORWEGIAN BEAR DOGS—IRISH WOLF Hounds, English Bloodhounds, Russian Wolf hounds, American Fox Hounds, Lion, Cat, Deer, Wolf, Coon and Varmint Dogs; fifty page highly illustrated catalogue, 5¢ stamps. Rookwood Kennels, Lexington, Kentucky.

TERRIERS

FOR SALE—IRISH TERRIER PUPPIES, three months old, by Balleymooney Fireaway ex a Chilmark Mrs. Feely bitch. Excellent specimens. Strong and healthy. \$50.00 and up. C. A. Long, Barrington, Ill.



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The World's Best Bird Dogs.
offer high-class shooting dogs, brood bitches and choice puppies. In Studs I offer the World's Best Bird Dog Sires. Every dog is better than represented and satisfaction guaranteed. Am in a position to board or train your dog in the best manner possible. Please write for terms and information. New catalogues will be ready for mailing about November 15th.

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national meeting place and exchange for all sportsmen, trap shooters, anglers, gun club members, hunters and guides, in fact, all who are interested in the great outdoors.

Sportsmen in planning their future trips are invited to call upon Sportsmen's Headquarters for any information they may desire on such topics as where different kinds of fish and game are to be found, the best routes to take, the best hotels in the localities selected, the best places to secure guides, the sporting equipment they will require, the ammunition or tackle best adapted to all kinds of fish or game, regulations of the different states on hunting licenses, game laws and restrictions, the character of various game countries, the seasons for hunting and fishing in different sections and any of the thousand and one bits of information they may desire.

Whether the Sportsman calls personally or writes, he will be furnished with the desired information. Sportsmen's Headquarters is to be the national quarters that all sportsmen may regard as theirs, a place to drop in and make themselves at home and a place to utilize to the full for their information and assistance. It is prepared to render them complete service along the line of all outing equipment.

Mr. Thomas A. Davis, widely known to sportsmen throughout America, is in charge of Sportsmen's Headquarters. He will be assisted by Mr. J. H. Cameron, who has had a long experience with sporting goods, and by Mr. R. H. Boyd, an authority on all subjects pertaining to the great outdoors, who was for ten years with one of New York's leading sporting goods houses and who is an out-of-doors man of long experience. These men know the sportsmen's needs and how to satisfy them and they are at Sportsmen's Headquarters expressly to do that to the utmost.

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all run-down, thin and unthrifty, if his coat is harsh and staring, his eyes matted, bowels disturbed, urine high colored and frequently passed—if you feel badly every time you look at him—eating grass won't help him.

DENT'S CONDITION PILLS will. They are a time-tried formula, that will pretty nearly make a dead dog eat. As a tonic for dogs that are all out of sorts and those that are recovering from distemper or are affected with mange, eczema, or some debilitating disease, there is nothing to equal them. PRICE, PER BOX, 50 CENTS.

If your dog is sick and you do not know how to treat him, write to us and you will be given an expert's opinion without charge. Pedigree blanks are free for postage—4 cents a dozen. Dent's Doggy Hints, a 32-page booklet, will be mailed for a two-cent stamp. The Amateur Dog Book, a practical treatise on the treatment, care and training of dogs, 160 pages fully illustrated, will be mailed for 10 cents.

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AVIATORS SPOTTING FISH

To the Editor of FOREST AND STREAM:

THE aeroplane as a means of spotting a school of fish is no longer a possibility. Actual tests have met with success. Operating from the Naval base, near Norfolk, the fliers go out and flying at a height of 500 feet find that they can see a school of fish anywhere within a radius of half a mile. The Navy is now working in co-operation with the Department of Commerce and the idea is to help make fishing more certain not only as a sport but as a means of increasing the nation's food supply.

The plan will be put to commercial uses just as rapidly as the Navy is able to increase its enlisted personnel to authorized strength for enlisted men. Officers will be used for observers on these fish hunting flights.

Flying of this kind will be carried out according to a systematic schedule. For those who love the air and the sea it will offer great sport.

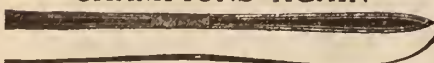
After acting as guides for the fishermen, the aviators could also give warning when storms were approaching and in other ways serve the fishermen.

EDWIN J. HEATH, Maryland.

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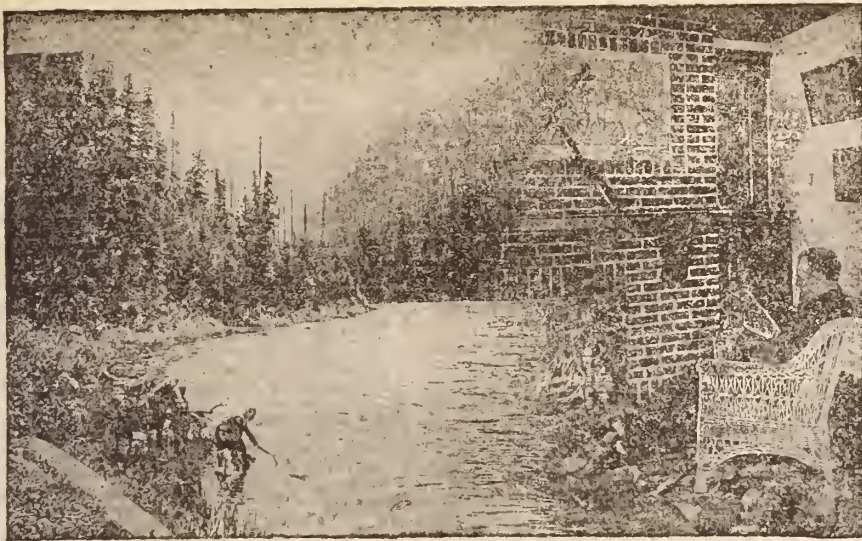
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CAMP LIFE AND THE TRICKS OF TRAPPING. By W. Hamilton Gibson. Comprehensive hints on camp shelter, log huts, bark shanties, woodland beds and bedding, boat and canoe building, and valuable suggestions on trappers' food, etc., with extended chapters on the trapper's art, containing all the "tricks" and valuable bait recipes of the profession. Valuable recipes for the curing and tanning of fur skins, etc. \$1.00 net.

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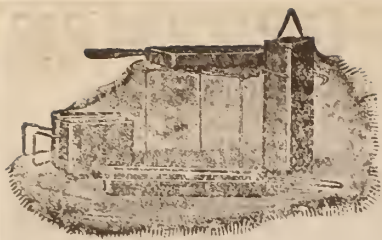
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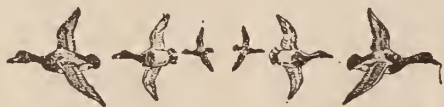
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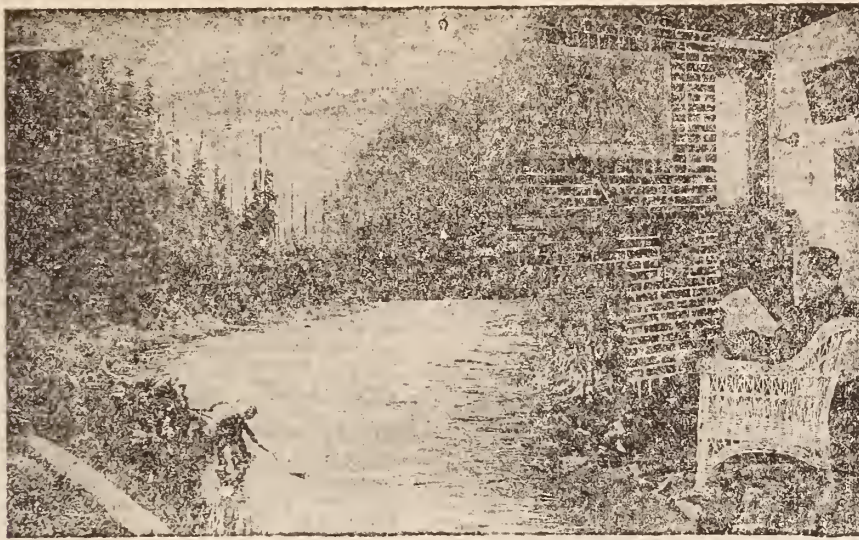
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This issue while it shows some improvement over our November number is not by any means satisfactory.

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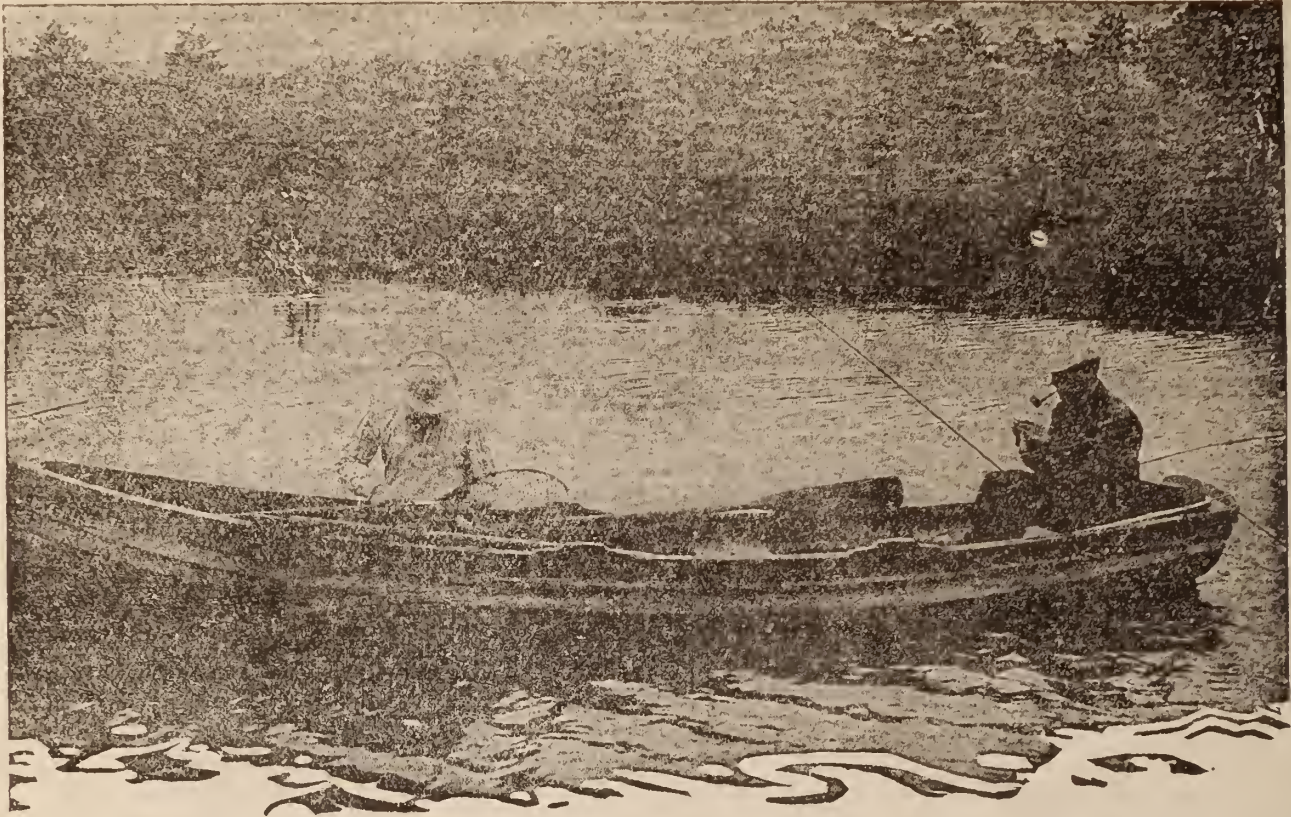
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HOW POMP SAVED OUR CHRISTMAS

THE NO 'COUNT YELLOW HOUND WHICH STRAYS INTO CAMP TURNS OUT TO HAVE A NOSE AFTER ALL AND TAKES HIS PLACE AMONG THE IMMORTALS

By EDWARD RUSSELL WILBUR

HE wandered up to the door one day, and with a grunt of half apology and satisfaction dropped down. He had a sort of "I've come to stay and to leave you never more expression. Yellow, gaunt and ungainly, he was a sorry specimen of a hound, and but for the fact that there was no place to bid him begone to, he surely would have gotten the "right about." We made him acquainted with a pan of cornmeal bread, which disappeared with a gulp and a half sigh at the quantity.

"Henry," said I, "what is it, and what are we going to do with it?" "Well," said Henry, "it's a dog, and a 'no 'count' one at that; but let him stay and we'll use him to catch hogs." So we christened him Pomp, and let him stay.

At this time Henry Carter and myself were living on a claim in Turnbull Hammock, Florida. We had put up quite a comfortable cabin and had trapped and hunted with varying success all winter.

About a week before Christmas we made all preparations for an extended tour up country after otters, and we had decided to visit Bull Island, a place much talked of as a wonderful game country and but little visited, as it was decidedly difficult of access.

The day before we started Henry took Pomp down to Titusville, where we went for provisions, and gave him away, for he had proved himself decidedly worthless as a hunting hound, and did not appear to know a deer track from a 'possum's.

How well I remember the morning we started. Henry mounted on a little raitailed scrub pony of great endurance, his pommel hung with otter traps, frying pans, a Dutch oven and other jangling camp fixings, while tied on at his back was a sack of oats and blankets. I rode a gray pony of greater size, whose saddle was decorated with traps, bags of provisions and other necessaries.

And all was made merry by the mouth-

ings of our hounds. We prided ourselves on our dogs: Bragg, Sherman and Troop, cold trail deer hounds with the Birdsong strain strong in their pedigree, and whose music was joy to a hunter's soul.

We rode straight across through the pine woods to Aurantia Station, where we arranged to have another sack of oats left for us by the train from Sanford. From Aurantia Station we rode to Turkey



A sure enough Christmas dinner.

Hammock and here we stopped for our noonday rest. The ride thus far had been through half-submerged pine woods and grass ponds, and the horses were already pretty tired, so we made good long stop, making coffee and enjoying several pipefuls before starting. However, we at last got under way, and, after another two hours' ride through the worst sort of saw palmetto, we made camp for the night on the edge of a little hammock through which ran a sweet water branch. We gave the horses a good, generous feed of

cats, put up our mosquito bars, cut a good supply of wood and made everything ready for the night.

I proposed to Henry that we take a look around the hammock for turkey and deer signs, but after an hour's walk we didn't find anything at all interesting, so returned, built up a fire and made a pone of bread and some coffee. After dinner we lit our pipes and somehow got talking about Christmas and what a great day it was for a good dinner, and I remember Henry's remark: "We'll have a big buck for our Christmas dinner up on Bull Island," and then he crawled under his bar, and with a good-night left me sitting by the fire.

HENRY CARTER was one of the best fellows in the world, a Georgian by birth and an enthusiastic sportsman, and our idea was, if the ground looked promising, to make a permanent camp up in this island country and trap it thoroughly through the winter. It was a glorious night, and as I sat by the fire I wondered if we were going to have good luck and if there were big bucks up there, and I got a little sleepy and nodded and—what was that? The full notes of a hound on the trail—coming nearer—"Henry," I called, "get out of that, here comes a hound running—perhaps there's a deer in front of him"—and we ran out, guns in hands, ready for the fray, just as that mean, no 'count, yellow hound Pomp ran out into the moonlight and opened his mouth in one long howl of welcome. But he didn't get it—Henry was mad at being waked up by that "low-born hound," and our other dogs all met him with hair reversed and a series of threatening growls. Still Pomp didn't mind, he crept up to the fire and fell asleep as one who has faithfully attained his end.

Next morning found us on the road again, and at night we made our fire on

the edge of the Blue Cyprus, across which lay our journey's end. We didn't dare tackle the passage at night, as it was nearly dark when we reached the edge, and though the chance of a good dry camp looked anything but inviting, we at last found dry ground enough around an old pine to sleep and make a fire on.

The next day we made the attempt at the cyprus swamp, and finally rode out on to a good-sized pine island. But, oh, the vexations that lurked among those cypress trees! I remember once seeing Henry wedged in between two trees, his knees-tangled up in the trap chains, one hand clutching the bag of oats which was just slipping off, and that restive steed of his receiving in fanciful word pictures a complete history of himself and ancestors. Well, we found a beautiful place to camp, high and dry, and soon had a "lean-to" up, wood cut and blankets spread, and in the afternoon of our arrival put out most of our otter traps. Never had we found so many signs, and on the morning of the following day we put five big dog otter skins on our stretchers. Christmas was two days away. That day we jumped a deer and our hounds ran him out of hearing and did not come back—all but Pomp, he stuck to our horses' heels. Next day, in the afternoon, the hounds returned, starved, lame and miserable. No more hunt in them. That night we supped, as usual, on a pone of cornbread and fried bacon. Henry wanted to know if I knew when Christmas was, and I told him yes, but we didn't mention dinner. We had fourteen otter skins stretched, and that made us feel pretty good, but you can't eat otter, and we needed meat for the dogs, and we could not afford to feed them cornmeal bread; if we did we'd have to go back soon for more provisions. But up to Christmas morning we hadn't killed a thing for meat, not a deer could we start—not even a quail could we find—not a coon put in an appearance.

We didn't say much on Christmas eve about dinner, the big buck, or anything else calculated to arouse the appetite. It was a forlorn outlook.

NEXT morning I wished Henry, A Merry Christmas, and we both threw what few scraps there were left from breakfast to the "good dogs," abusing Pomp for coming along. As usual, Henry saddled up and started on the rounds of his traps. I started out with Pomp at my heels to get meat for dinner. Really I didn't know what to do or which way to turn, the country seemed deserted, not a sign of life. Usually quail could be found, but we hadn't seen a bird this trip. Riding listlessly along I took the direction of a small hammock where I had seen some turkey scratches a few days before, the visions of past Christmas gobblers urging me on. For the first time that morning I noticed now that Pomp was running ahead of the horse, and really acted as though trying to pick up some cold trail. He appeared full of business, nose close to the ground, slowly working along, and once I heard

him grunt his peculiar note of satisfaction. I became quite interested, for it might be a 'coon and that would be something. I said nothing, but followed slowly on, as he picked out the trail across a small grass pond, but just as I rode out on the other side there stared me in the face, fresh on the soft sand, the biggest buck track I had ever seen. To say I was interested would be drawing it mild. My heart put in an extra thump, and the whole earth looked more inviting, more like Christmas Day.

But I can't quicken your pulse with cold pen and ink. You need the actual experience, the sight of that "sorry hound" following each capricious winding of the big deer, as he had fed through the night before. We followed the trail at least two miles to a small clump of palmetto trees, and here I felt the end would come. Pomp was quickening his pace, and once or twice he had voiced his mind in a short exultant note, and I could see that he was sure of jumping his game. Hastily dismounting I threw the bridle over the horse's head, and holding it on my arm, faced the trees. Pomp was out of sight, but I heard once or twice his "voice so sweet," and then the quick-sharp, hair-raising, incessant notes of heavenly music, and I knew the deer had jumped. With a rush he came out of the thicket, his head like a brush heap bouncing high

at every jump like an India-rubber ball. Holding well on his glistening shoulder, I saw at the report the flag come down, and on the next jump he stopped turning his head from side to side, until Pomp's urgent music started him on. Jumping on the pony I sat ready for a ride to head him off, but there was no need. Trotting slowly, but majestically the big buck came straight to where I stood, and when within ten feet of the pony, staggered, fell and died. Pomp got to him about as soon as I did, and we both made merry over him; that no 'count hound coming in for his share, wondering, I suppose, at the new treatment he received.

WELL, we got the buck to camp—Pomp and I—and woke Henry up. He was a changed man, the smile froze on his face and stayed there all Christmas Day. We let no grass grow under our feet. Dinner was soon under way, and we sat down to the following menu: Fried backstraps of venison, roast ribs of venison; a beautiful pone of white bread, black coffee and hominy. And Pomp sat at dinner with us—to the exclusion of all other dogs. After a soothing pipe, we felt at peace with all the world. Strange, but we were never out of meat again, and Pomp became our pride—but he never jumped a deer that I did not think of the old buck at Bull Island, and how he saved our Christmas.



He came out of the thicket with a rush.

TRAPPING IN SOUTHERN PENNSYLVANIA

SOME PERSONAL OBSERVATIONS AND EXPERIENCES WHILE FOLLOWING A TRAP LINE FOR THE COMMON FUR BEARERS IN THE TUSCARORA VALLEY DISTRICT

By T. MAC THRAITE.

MOST trappers during the last season experienced much keener competition than formerly. At least this was the case in that part of Pennsylvania where I trapped. Due to the advance in prices of pelts, country men and boys in countless numbers and here and there even girls went after the fur bearers.

Notwithstanding the fact that hundreds of trappers were serving the colors, it is the opinion of fur dealers that more people trapped during the season of 1918-19 than ever before.

It is a significant fact, however, that even with this increase in the number of trappers, only the skunk collection seemed to equal that of former years.

All others, particularly muskrat, mink, coon and red fox were smaller and, as compared with five and ten years ago, showed a very marked decrease.

With prices as they have been during the past two seasons it is probable, however, that trapping is as profitable and perhaps more profitable than formerly, when the catch was larger.

But it is more necessary now than ever before for the trapper to know his trade.

The harder a district is trapped the scarcer and warier become the animals and consequently more skill is required of the trapper if he would succeed.

The great majority of those who trap, the country boy, the farmer, and the outdoors man, do so on a small scale near their homes. As a class they use very little science and obtain only mediocre results.

But in most districts where trapping is worth while one will find men who go at the things in real earnest. They are thoroughly familiar with the game and fur-bearers in their section and depend on their catch of the latter for partial support.

These are the professional trappers of the more settled states, and it is to them we look for information as to the best methods of trapping in their respective sections.

As the habits of animals vary under different conditions so do the methods employed for their capture.

In the North, for instance, where food is scarce in the cold weather, bait sets are very successful.

In the South food is more plentiful at this season and blind sets are usually better.

Mountain trapping is different from that of the plains; western from eastern, and that of the wilderness from that of the settled districts.

Hardships to be encountered in the former are not met with in the latter, while many vexations and annoyances which go to hamper success are encoun-



John B. Miller, a veteran on the trail.

tered much more frequently in civilized parts than in the wilderness.

Take the trapper who has always worked in one district, put him in another where conditions are totally different, and he will probably, for a while at least, make a mighty poor showing.

Every district should be thoroughly understood to get good results.

A beginner should try to get some good man to teach him. If he can go along with an experienced trapper on his trap line and see how he works during the different seasons and get him to explain the various sets and the seasons for using them and can get him to point out tracks and signs which are encountered, he will learn more in one season than years of individual experience would teach him. But very few trappers would care to do this, and particularly so where competition is keen.

It is deplorable, but nevertheless a fact, that trap thieving in many districts is one of the most serious handicaps to success that the trapper has to encounter. For this reason he employs every precaution possible to keep the location of his line a secret. An inadvertent remark by his most intimate friend might ruin his season's prospects.

It seems remarkable that such an important industry as trapping is not given the protection it has a right to command.

I trust the day is not far-distant when trapping licenses will be required in every state. I should also like to see special laws made to protect the trapper.

Licenses and just laws would place trapping on a staple basis.

Present conditions, however, are what we have to consider.

WITH the idea in view of explaining conditions and trapping methods used in a specific district I shall endeavor to give some personal experiences and observations while following a trap line during the past season in the Tuscarora Valley district in Southern Pennsylvania.

The state in this section is rolling and mountainous. The valleys are cultivated. The mountains and ridges are mostly covered with second growth timber of considerable size. Small saw-mills are scattered throughout the district and cutting paper wood and making railroad ties constitute an important source of revenue.

From an eastern standpoint game is plentiful. It consists of deer, rabbit, squirrel, turkey, pheasant and some quail. The fur bearers are red and gray fox (mostly the latter), skunk, coon, muskrat, mink with an occasional bay lynx, opossums up to two years ago were plentiful. The past two seasons they seemed to be very scarce for some reason.

During the open season almost all the natives hunt. Besides, many non-resident hunters came into the district. It is therefore inadvisable to put out the full line until the season is over. But many carefully placed sets, particularly blind sets, will not be observed and may be handled successfully while hunting is on. During this period the trapper, particularly if he is a stranger, can put in his spare time to good advantage prospecting and preparing locations for sets. I will give a word of advice to those who have not had such experience: In going into a strange district it is absolutely necessary to take along some sort of note or form of endorsement or introduction. If one does not he will almost invariably be regarded with suspicion, perhaps "sized up" as a game warden or some sort of an officer of the law.

This was my experience, although I had a note of introduction to a prominent citizen.

Game wardens are not usually popular and in some localities their lot is a decidedly risky one. Southern Fulton County, for example, as attested to by the experience of the last two who endeavored to patrol that district too thoroughly.

If a stranger, you will probably get more information from the boys than any other source. There is a world of infor-



The entrance to a splendid muskrat burrow was found under the bank about a foot beneath the surface of the water.

mation you must get. You should know where most of the trapping is done and by whom; where the professionals, if there are any, are working; what luck they are having; what sort of men they are; who in the community, if any, you might expect to find hostile, etc., etc.

If a trapper attends to his own business, however, and is courteous and civil, he will soon make friends and will usually have little trouble anywhere.

IN almost every section one will find districts which are wild and unfrequented, parts too far from the settlements and farms to be trapped much by the amateurs. Such a district is Allens Valley between Sydney's Knob and Tuscarora mountain in Southern Pennsylvania.

It was here I located my trap line. The valley, which is eight miles long by one to two wide, lies within a state forest reserve of thousands of acres. There are no restrictions against trapping on this preserve, but no timber of any kind can be cut nor can one remain on same after sundown without special permit.

The valley is mostly densely timbered and a trout stream runs throughout its length. Numerous runs from the mountains on either side feed the stream.

Signs of animal life are plentiful and probably the amateur would overestimate the amount of game.

Deer, fox and turkey signs are encountered frequently and along the stream one will see signs of mink and coon. Also, along the runs will be seen tracks of the

latter as they follow them down from their dens in the rocks in search of food.

Muskrat is not found in Allens Valley proper. However, to the west of the valley, where the stream runs through cultivated sections and in the mill pond they are quite plentiful but remarkably trap-shy. Of course mink signs are likely to be seen anywhere along the stream, as these little travellers cover such great distances.

Skunk are found throughout the valley and are well distributed over the district generally. They have been trapped hard for years and their dens destroyed in reckless fashion but they still seem to hold their own.

With the exception of the skunk all the common fur-bearers in this district seem to be well "educated." It takes skill and patience to get satisfactory results.

I decided on Allens Valley because it had not been trapped for years, was too far away for boys to bother with and the preserve afforded protection for the wild creatures.

As there were more runs from the mountain on the south side of the valley than the north and as the forest preserve lay mostly in that direction, I decided to lay my line so as to trap these runs going out and return along the stream. The circuit covered about ten miles.

The muskrat district lay so close to habitation or the "boy zone" as I call it, that some sort of a deal was necessary in order to protect myself against the trap thief. This was found by forming a sort of partnership with the miller. This worked out well. He was very popular and influential in the district generally. Although both catches and traps could have been stolen the worst boys feared to try it.

We only lost one trap during the entire season and seemed to "clean up" the rats completely in that section of the stream where we worked.

UNTIL snow fell I depended mostly on bait sets for skunk. The first tracking snow, however, disclosed the location of several good dens. Hole sets and plug hole sets were made and added to the line.

While prospecting I would prepare places for various sets particularly for mink and fox so as to let them become accustomed to them before setting the traps.

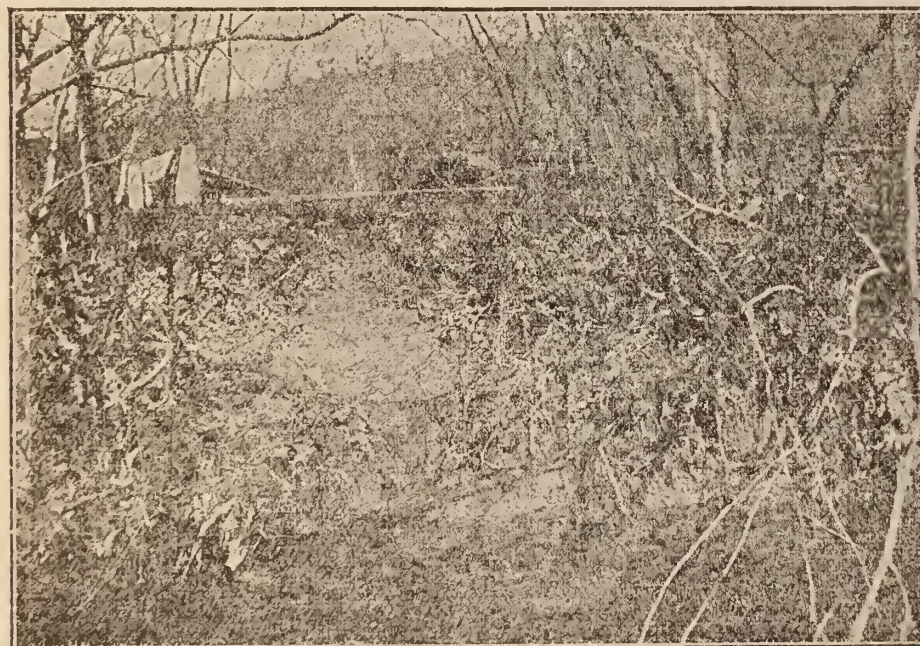
There is no close season for mink, muskrat, or skunk, at the present time, in Pennsylvania. (There are rumors, however, that changes in the laws are shortly to be made.)

Coon is protected from January 1st to September 1st.

Therefore, after the first of the year the trapper must alter his campaign to a considerable extent.

Sets made exclusively for coon would have to be lifted and in their place more mink, fox and skunk sets made.

In this district it pays to pay particular attention to skunk. The better grades seem to be greatly in the majority and bring more than foxes, unless one gets a red, which is rare as grays predominate.



A well used muskrat slide, taken from the stream.

In prospecting a district I wear clothing that is light and easy to work in and carry nothing but my hunter's ax for these first few days of strenuous walking and climbing usually go hard with me and there is no use carrying unnecessary weight.

Like some other unfortunates, I am afflicted with a good "forgettery" and sometimes am infernally absent-minded. A note book and pencil of convenient size to fit the hip pocket is therefore part of my regular equipment.

As a reminder it is invaluable and I use it to note signs, directions and locations. I find it does away almost entirely with any necessity for blazing, making marks, etc.

During the season I keep in this book a complete list of my sets, how made, baits and catches made.

The information derived from these notes is almost invaluable.

In placing my line I don't attempt to hurry. By the time hunting season is over many sets will have been placed. For the balance, the rate of eight or ten a day satisfies me, in this sort of country. The "easy installment plan" has the advantage of familiarizing one with his route as he goes along.

Under separate heading I will try to explain the habits, tracks and signs of the several fur-bearers and the various bait, land and water sets found most successful for their capture.

MUSKRATS.

MUSKRATS, as found in our streams, are known as "bank rats," that is, their method of housing is by burrowing into the bank from under the surface of the water, usually about a foot, and then up above water level so their living quarters will be safe from inundation. These burrows sometimes run back from the stream twenty feet or more.

It is the general impression that anyone can catch a muskrat. In many districts the only reason this is true is because of their gregarious nature. Throughout the past season the banks of our streams were literally strung with traps.

Considering the great number of sets made, the relatively small percentage of rats caught shows conclusively that, here at least, they were trap-shy, and much warier than commonly supposed to be.

In fact, taking into consideration the number of both kinds of animals which frequent our streams and the number of sets made for each, the percentage of mink caught was far greater than muskrat.

I don't wish to convey the impression that our muskrats are warier than the crafty mink. I only wish to emphasize the fact that an "educated rat" won't walk into any old trap just because a piece of parsnip or apple is stuck on a stick above it.

Those who trapped for mink used very special care in placing and making their sets. On the contrary the muskrat sets were usually crude and poorly placed.



The back creek to which the muskrats seemed to have migrated last spring.

Muskrats become prime in early spring and at that season command best prices. Winter pelts are next best and fall least valuable. Black muskrats, of which we have a few here, bring a premium.

Game laws in some states prevent fall trapping altogether. This is an excellent idea because the fall catch shows a large percentage of kits and small rats.

The tracks and signs of this animal are familiar to most country people but for the benefit of those who have not had the opportunity of studying them, I will describe the most common.

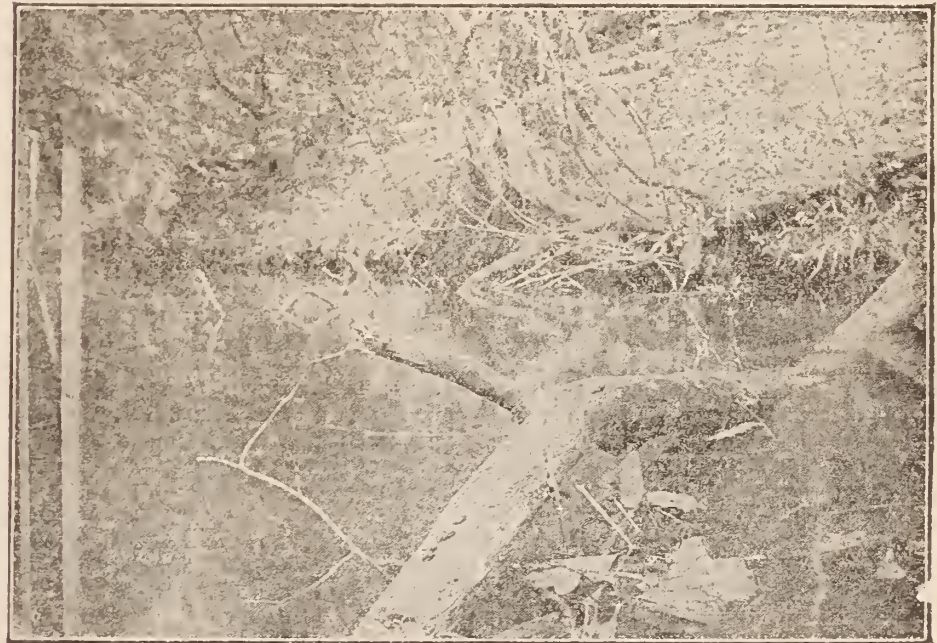
Along the stream where the banks are muddy or sandy or in the snow one will see their tracks.

The hind foot of this animal is two and three-quarters to three inches long from heel to tip of center toe and is about

five times as large as the front foot.

The print of the hind foot shows five toes. The outer ones are about five-eighths and the center are about one inch long, well spread out; the distance between the outer ones being about two inches from tip to tip. A track picture of this animal working along a bank seems to be very irregular. The impressions of the hind feet will predominate. Being so much larger than those of the front they will obliterate many of the smaller impressions. Among these tracks will be seen several lines made by the dragging tail. The track of a muskrat walking straight along, however, shows a regular stride of five to six inches. The impression of both front and hind feet will be

(Continued on page 672)



Muskrat droppings on a fallen tree.

THE RIFLES OF OUR FOREFATHERS

CONCERNING A FINE COLLECTION OF OLD-TIME GUNS AND A MAN WHO USES THEM IN THE FIELD IN PREFERENCE TO THOSE OF MODERN MAKE

By LIEUT. WARREN H. MILLER, U. S. N. R.

THE romance of the Winning of the West revolves around the pioneer, his rifle, and his coonhound,—the Man, the Dog and the Weapon. By this doughty trio the land was cleared of savages, so that the husbandman could come after in safety, and to them we owe this broad continent that is our heritage today. Like a fine violin, or a fine axe, the rifle of that period is a poem of symmetry and beauty, and in fitness for the purpose for which it was used. One handles a Kentucky rifle with a feeling of reverence, for this was the weapon that gave us our country. Mingled with this reverence is sure to be a rifleman's admiration for its perfection in form and workmanship, for, it is far more perfect than a casual glance would reveal. It differs in many points from the modern rifles which we have come to consider the last word in firearms, but in the essential, the great essential, of getting game it is a more perfect device than anything that we use now.

This may seem a strong statement for a man who has known rifles and used them for years, but consider that our pioneer forebears lived by the game that they shot, and owed their personal safety to the accuracy and reliability of the rifle to keep hostile Redmen at bay, and you will readily see that such a weapon as they used had to be a survival of the fittest, and embody perfection in every good point that a rifle should have. For the pioneer, his rifle should combine flat trajectory with cheap and easily carried ammunition, all of which (but the powder) could be home-made, and should have accuracy as great as that of any modern rifle, up to one hundred yards. Beyond that, the pioneer rarely had to aim, for he would be a poor woodsman indeed who could not get that close to his game, even if he could see that far in the woods.

The sights must be hunter's sights, something that would give the greatest visibility on the dim forms of game in the woods, and must be of a design that could not be broken, nor deranged, nor clogged up with dirt and needles when going through thick brush. The ammunition must be cheap, for accuracy does not come by wishing for it but by assiduous practice, and rifle practice was one of the principal recreations of our pioneers. It must also be light, as often they undertook long wilderness campaigns, when a fresh supply was out of the question, and even this replenishment often had to be done in the backwoods, where a bar of lead, a bullet mould and some beeswax served to cast a new supply of bullets. The pioneer's rifle had to be easy to aim, and lie steady on the mark, for one had neither powder nor lead to lose



Loading an old-timer.

on misses, and each shot had to count; wherefore the barrel was heavy, the heaviest part of the rifle, with the balance was up near the end of the forestock. Such a weapon, weighing from nine to fifteen pounds, will lie as quiet as a solid bar of steel in one's hands, with the sights hanging steadily on the mark. Finally, to take advantage of this property, the trigger was made double, the set trigger being pulled as the sights swung into line, and then, during that instant when they hung steady on the mark, a mere touch on the hair trigger released the load.

With such a rifle you can shoot!

TODAY we have none of these things. In exchange for more shots and a greater range, our ammunition costs ten times as much; is four times as heavy; is impossible to replenish, once away from a gun store; our sights are a joke, meant principally for paper targets; our barrel has no stability and wobbles about like a cane; and the actions of our rifles are so complicated that there is little reliability in them, and a visit to the gunsmith's necessary in case they do break. It's a safe bet that the old-timer of 1840 would, if handed a modern rifle, be delighted with the toy for perhaps a

week, after which he would begin to scratch his head about carrying two hundred rounds of its ammunition into the woods for the season, worry about what had become of all his good shooting, look askance at his empty pocketbook, and finally sneak back to his old Tryon or Krider,—and that would be the rifle he would take into the woods with him!

I know at least one man who has done this very thing, in modern times, a man who really prefers the old-time muzzle loading rifle for his big game shooting. He is M. Ingo Simon, the French-English opera singer, famous in England as an archer. Like most Englishmen he has a hobby, and, like most of them, he rides it thoroughly. His hobby is firearms, and his specialty is a collection of Kentucky and Pennsylvania hunting rifles. Unlike most collectors, who are content to keep the rifles in some gun cabinet, to be looked at only, M. Simon uses every rifle in his collection, of some thirty of them. They are all in first-class working order, just as they were when used by the original pioneers, who hunted and fought Indians with them. Deer and turkey rifles of the eastern states, percussion nipped, and with rather short thirty-two inch barrels; old Kentucky rifles of 1812, with flintlocks and long barrels that reach up to a tall man's chin; buffalo guns of the '60s; old Sharps—one and all, they shoot and shoot well.

Naturally, I was intensely interested in all this, for the art of the old-time muzzle loader rifleman is nearly all forgotten nowadays, and I seized eagerly the opportunity to put down in print the whole story of our pioneer's weapon, and how it was loaded and used. Simon and I went out for several matches together, on old Cape Ann, for he loves to spend an afternoon with one of his old rifles, firing at a bobbing Stero alcohol can adrift on the waves. That is not an easy mark to hit, for it is small, 2½ inches in diameter, and it bobs exasperatingly up and down on the waves. But we hit it, time and again, at ranges from forty to eighty yards, and once I sunk one more than 100 yards off that was getting away down the tide.

One of Simon's pets, a Tryon .43 calibre of 1860 will do to describe, as a type of the lot. It weighs nine pounds, has a 31¾ inch barrel and a curly maple stock, stained dark, and oil polished. The stock length is 14 inch, drop 3¼ inch, 1¾ inch at comb. Like all of them, the rifle has two triggers, the rear one a set trigger which is pulled just before firing, and the forward one a hair trigger, which just needs a touch of the finger at the right moment. The butt-plate is a poem, with a beautiful swallow-wing curve, made to

exactly fit the shoulder, not just a half round as in modern "Swiss" butts, not at all bald flat, as with many of our military rifles and their sporting copies. In the stock is a patch pocket of chased steel, the cover $1\frac{1}{2}$ inches wide by $4\frac{1}{2}$ inches long, holding two hundred round patches of waxed linen, very tough and thin, and about $\frac{3}{4}$ inch diameter. On the inside of the stock is a cheek piece 5 inches long, $2\frac{3}{4}$ inches from the butt and thinning away to the tang, which tang has no pistol grip but is well checked. The breech block screws into the end of the barrel, and carries a percussion nipple and a square projection on its rear end, which fits into a recess in the stock, of plate steel. Two lugs, on the under side of the barrel, are engaged by rectangular German silver bars passing through mountings in the fore end, which can be pushed out by the thumbnail so that the rifle can be dismantled as quickly as one takes down a breech loading shot gun. The ramrod is of hickory, $31\frac{1}{4}$ inches long, and is tapered from the top end to about 3-16 inch diameter at the lower end, where it terminates in a steel screw socket, which carries a worm for swabbing out the barrel. The rod is stained dark red and polished, and is shod at the big end with a collar of German silver.

The rifle shoots 65-round balls to the pound, and uses $1\frac{3}{4}$ drams of powder per charge. We set out with two of these old rifles, almost identical in design, the Tryon, and a Krider. Simon carried a small, flat, white powder horn, with a snap measure and brass base. It held about forty charges of powder. To load, after the powder charge is poured in, the butt of the rifle is rested across one's moccasin to keep it from being scratched and soiled, and a patch is taken out of the butt pocket and centered over the muzzle. The round ball is next put in place, with the casting tit facing up. It is then started down the bore with a small wooden bullet starter, a short stick of black walnut, with a round ball at the upper end to take the blow of one's palm. The bullet can, of course, be started with the ramrod, but it is rather more awkward. After driving in with the starter, the ramrod comes into play and the bullet is forced down with one stroke, or else with a series of shoves if the rifleman is not strong enough, and then the bullet is driven home on the powder. When the ramrod bounces out an inch or so, it is home, and this generally occurs at the third blow. Do not seat too hard, lest you flatten the bullet. A percussion cap is then put on, and the rifle is ready.

NATURALLY I concluded from the performance of such rifles as our modern .44 calibre and .32-20 black powder, with their $3\frac{1}{4}$ -inch mid-range rise at 100 yards, that the trajectory of the Kentucky rifle would have a high mid-range elevation. Such is not the case. Testing it out with a rest, I found that the rifle hit where held at virtually all ranges up to 100 yards. At 50 it made a $1\frac{1}{2}$ -inch group, the shots being one above the other in a vertical line, due to slight variations in drawing the sights. The



Comrades three.

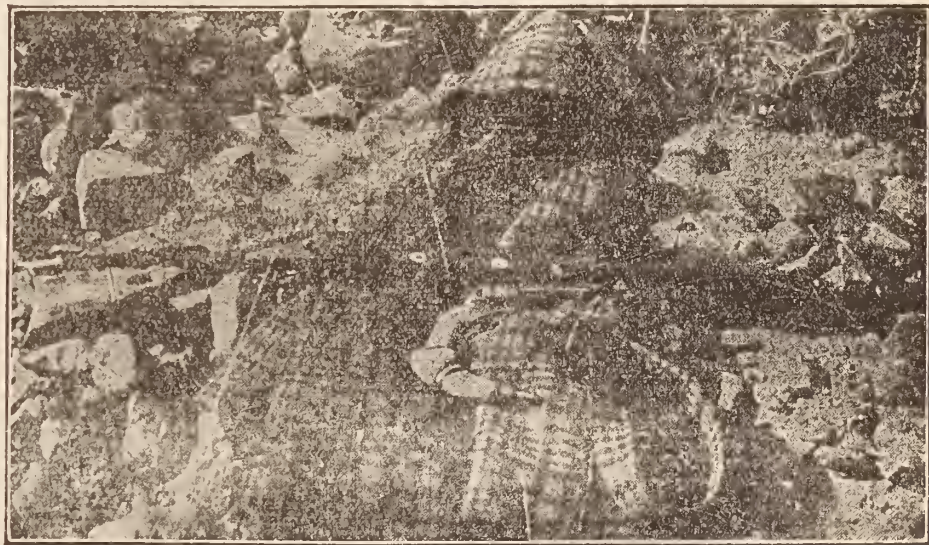
reason for this flat trajectory is the large charge of powder, $1\frac{3}{4}$ drams, driving a round bullet of about 120 grains. Simon has made $3\frac{1}{2}$ -inch groups, frequently, at 100 yards with Krider, Tryon, Derringer and Piper rifles alike.

The sights of the old-timer consist of a hard brass, long, whaleback, front sight, mounted on a movable slot, and a steel V-notch bar sight, placed well forward on the barrel sixteen inches from the eye. The focus of both sights and the mark are remarkably clear, and the rifle hits were held when the point of the front sight cone is level with the bar of the V. The rear end of the front sight slants back, so as to reflect overhead light back into the eye, and a bright bead shows at the top of its cone. It does not shoot off the light, but it *does* show one side of the cone dark and the other light, in cross sunlight, which is apt to fool the beginner. Naturally the personal equation of such a sight is high, one man shooting low and the other high with the same holding, but it gives very fine definition

on dim marks, such as game or a small, weathered block of driftwood, set up on a rusty bar sticking up out of a wreck, which was one of our marks. A worse sight, for a white paper target with a black bull, could hardly be imagined. A faint luminosity seems to edge the front sight, making it stand out sharp on dim marks, but when held on white paper, even at thirty-five yards, the mirage was so strong that the bull seemed to roll over the sight, and again it would disappear altogether in a swirl of air current through which one could not see. This was in rest shooting, when the sights hung perfectly still under the bull and it seemed to move. But, for game it made a fine sight combination, and a mark like a bobbing tin can on the waves could be picked up quickly and showed well. I personally found I did best when I held well under and fired as the can slid down a wave onto the sights.

After each shot Monsieur Simon swabbed out the barrel with a rag on a worm, which he kept in his pocket and screwed into the small end of the ramrod when used. We had several pleasant afternoons shooting a match with the old rifles, more fun and far less expensive than a like holiday with the modern rifle, for there was time between hits, when loading, in which to chat and yarn over hunting experiences, and, once loaded, you were careful to do your very best with the one shot that you had at command. And, a finer shooting, more accurate tool I never used on a mark, than these products of the gunsmiths of the great game hunting epoch of our country.

After the match, the rifles were taken home and cleaned. This was no longer a process than one would take with a breech loader. In a few moments the barrel was off, simply pushing out the holding bolts under the barrel in the fore end. A can was filled with hot water, and the barrel set in it, nipple end down. A rag on a cleaning rod made a sort of pump plunger when run down the barrel, and, after a few vigorous strokes, black clouds of water shot out of the nipple. The bar-



The tools of the pioneer—rifle, pistol, and powder horn.

rod was then lifted out of the can and the rod shoved down for a final time, when a squirt of water, eight feet long, shot out of the nipple. The old frontiersmen must have had plenty of horseplay with those nipples when cleaning their rifles for they make a fine hose nozzle! The hot barrel then dries out, and a thin film of oil is run down the rifling with a swab on the cleaning rod, and the rifle is ready to put away.

M. SIMON has shot big game both here and in India with his muzzle loaders. In Nova Scotia he went on two trips, getting his caribou both times with a single shot from the Tryon .43 at 80 yards and, in India black buck, sambur and other Asian game have come to bag, to the sharp bark of our American frontiersman's rifle in his hands.

Among the gunsmiths of that period may be mentioned Tryon, Krider, Derringer, Piper and Goulcher of Philadelphia; Lewis, the famous barrel maker of Troy, N. Y.; Geo. O. Leonard of Keen, N. H., who specialized on the target barrels; the great Western Gun Works of Pittsburgh, established in 1860 and still making muzzle loading rifles of the old school, and Hawkins of St. Louis, the best-known rifle-smith of the old West, Josh Goulcher, of Philadelphia, later established the firm of Goulcher & Butler, who made the first percussion cap rifle taken West by Kit Carson.

The workmanship of them all is superb, so that the purchaser of any rifle bearing the names of any of these old gunsmiths will find that he has a great shooting weapon in hand. The barrels were all made here, the locks at first came from England, and later were made here also. The majority of these locks are with forward plate, in preference to tang plate, with the spring facing backwards, no doubt to give more strength in the tang. The stocks were all heavily ornamented, with inset brass deer, turkeys and ornamental figures, and the butt plate strap came up over comb and heel for a considerable distance, beside which the steel ornamentation of the patch pocket covered a large part of the outer side of the stock, while the cheek piece filled the inner. As the heel was very narrow, from 4" to 4½", and the drop very sharp, never much less than 3½ inches, the old stocks had a quaintness all their own, and gave the gunsmith considerable latitude in which to spread himself in the matter of ornamentation.

Of the long Kentucky rifles, M. Simon has two examples in his collection, both accurate-shooting nail drivers. The first is a flint lock, .43 calibre, with 44 inch barrel, weighing twelve pounds. The charge explodes a noticeable interval after the flint has set fire to the priming in the pan, and the report is a long "Sh-h-hong!" requiring holding on the mark while the piece is firing, but its penetration is greater than that of the later percussion rifles with short barrels, which is some two inches in hard oak. The sights are flat front and notched bar rear, the latter

set 19½ inches from the eye, so that the definition of rear notch, bead, and mark are all good. Holding one's arm well out on the long barrel, even we puny moderns can manage to hold well on a mark and make good scores. The drop of this rifle's stock is 4" at heel and 2" at comb, and the stock length 13½ inches.

The other Kentucky rifle is a "pea" rifle, .34 bore, weighing twelve pounds. It was originally as tall as the other, 5 ft. 2", but about six inches had been sawed off the barrel. The rear sight is set 13½ inches from the eye, and is the usual bar notch, with leaf front, very long and low, not over a sixteenth inch high. The heel of this rifle is only 4 inches wide, and it has the usual deep drop of the early guns. Both of these Kentucky rifles date around 1812.

The Mississippi Rifle came in later, the Tryon example in Simon's collection dating 1844. The pioneers had now crossed the Mississippi, and were mounted on ponies as they ranged the prairies, and a short, heavy-hitting rifle with shoulder sling-strap was wanted. This Tryon is of .50 calibre, shooting a half ounce bullet, and has a 29-inch barrel, with military-musket hammer and percussion cap, and



the rear sight is set only 10" forward from the eye, evidently a regulation army scheme, on regulation musket barrel, with no thought of what is required in good definition in the rear notch.

Another interesting rifle is the immediate successor of the Mississippi rifle, the Whitney, .51 calibre, used extensively all over the West in the early days. It shot a Minié ball, conical, with expanding base, and had a Government ladder rear sight with point blank a hundred yards when the sight lay flat, and a maximum range of 900 yards when the notch was raised to the top of the ladder. The Whitney was the first rifle to be made with interchangeable parts.

Next in chronological order in the collection is the Sharps buffalo rifle. This was exceedingly heavy, 17 lbs., and was carried to the hunting grounds on a led pony. It is short and so built with the military butt plate and 21-inch barrel, breech loading, shooting the long, heavy .45-110-500 cartridge with paper patch bullet. The breech drops down in deep grooves by the pull of the trigger guard lever, much like a modern single-shot

Winchester, but the hammer, instead of being centered behind the firing pin, is a huge, musket type affair, mounted on the right side and striking a rolling firing pin in the breech block, which tumbles forward under the blow, its firing pin jutting out through a hole in the breech block behind the primer. The front sight is a plain leaf; the rear a tang peep on a long ladder, sighted up to a thousand yards. The drop of the stock is 3½ inches; length, 13½;—short, for prone firing. The buffalo hunter, according to Buffalo Jones, lay in concealment before a herd with his Sharps and half a ton of the long, powerful cartridges, and picked off the leading cow to right and left of the herd, keeping them milling uncertainly all day long, until the entire herd was exterminated. No wonder the Indians went on the war path! The only trouble is that they did not succeed in scalping all of these old hunters, until the Government had time to appreciate all that the country has lost in its immense herds of bison. I am glad, however, to have been able to describe here the Sharps rifle, for it played its part in our history, and is fast becoming but a name to the present generation of sportsmen.

A MONG curious old-time rifles, two by Josh Goulcher in M. Simon's collection will bear a brief description. The first is an over-and-under gun, date about 1810, both barrels .45 calibre, one rifled and the other smooth bore. It was undoubtedly used for bear, for it gave two shots quick. The barrels are 30" long, and revolved at the base by a hair-line fit against the steel face of the front of the tang. A side catch locks either barrel in position when it comes uppermost, and both barrels have percussion nipples, even the upside down one holding its nipple because of the tight fit of the cap. To use the second barrel takes about a second to re-cock, spring the catch, and turn the under barrel uppermost. We reasoned that the hunter used the rifled barrel for long range, and the smooth one for close up, after the bear had charged. Or, one would be used for deer and the smooth bore for potting grouse, as at that date they were as unafraid of man as they are, even now, in parts of the Rockies, and would sit in a tree, looking at him and waiting to be shot.

The other rifle is a Josh Goulcher target rifle, for old-time turkey head shoots. It is a flint lock, weighing 15 lbs., with heavy octagonal barrel 1¼ inches thick and 32" long. It is .38 calibre, and both front and rear sights are mounted in long steel tubes, about half inch in diameter by about three inches long. Inside the rear tube is a peep sight, and in the front a fine, pinhead sight, both of which give fine definition in all lights. The regular open hunting sights are under the tubes and can be used in place of them by simply sighting under the tubes. This rifle shoots very accurately at 100 yards, and, like all flint locks, is slow in

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A BIG GAME HUNT IN NEW BRUNSWICK

THE RECORD OF A TRIP INTO THE SILENT LAND OF THE MOOSE AT THE TIME OF THE YEARS' DECLINE WHERE MANY INTERESTING THINGS ARE OBSERVED

By E. L. POPE.

AFTER a twenty-four hour trip from Boston, I met my guide, Robert Craig, of Zionville, at Taymouth Station, eighteen miles from Frederickton and on a two-horse wagon holding our supplies, we rode five miles to his house.

The next morning the supplies were taken six miles to one of the camps in the Cain's river, south branch section, abounding in plains of many sizes, also medium and heavy growth. As there were but two of us, we selected a small log camp, pleasantly situated near a brook.

We started through the silent forest each morning before daylight, ate our lunches beside noonday fires and returned after darkness, the last quite enjoyable, when the brilliant moon, reflecting on the snow, made it surprisingly light.

Of moose we saw twelve bulls, eight cows and three calves, and of deer fifteen bucks and eight does, or over nine tons, live weight. As the law for the first time forbade the killing of caribou we did not go to the camps near the plains on which they roam. Nine bull moose and eight bucks were close enough to afford fair shots.

Spirited action began, when I fired at my first buck on high ground, one hundred and fifty yards across a valley. Away he went, while we slid down one hundred feet, then scrambled up the steep bank and ran a quarter of a mile to the brink of the main valley. We had no time to admire the mile-long view to the right of the river, sparkling far below us in the bright sunlight, so wheeled and dashed along the edge, until beyond a growth that had obscured our view. Two hundred and fifty yards across, the buck leisurely climbing the opposite side, appeared just then above the line of the tops of the trees in the valley.

Three quick shots made him dance about but at the fourth he turned a great somersault far down the slope, landing on his back dead and sliding on the snow crust until a hind leg caught in a small tree. It was a long job to pick our way down the steep rough slope, cross the river on a seventy-foot slippery log and lower him to the valley bottom. He was quite large, weighing probably two hundred and forty on the hoof.

After dressing him, a fast three-mile walk completed a busy day. We had another task a few days later, when we took the buck across the river which had frozen just in time and then hauled him to the top ready for the sled. We walked two hundred and seventy-six miles in twenty-six days, or ten and one-half a day.

Covering so much ground in a well-stocked game section, was bound to bring good results, but a sportsman who fin-



The author wearing his unusual sweater.

ished his trip with the guide, just before I began mine, walked short distances, yet got a moose, two deer and a bear and the year before got the same amount plus another bear.

WE started on a buck track at eight o'clock one morning and wound across the great plains, down into valleys, up the steep sides, for deer and moose are fond of climbing, and into the pretty ridges of conifers and hardwoods, many of the latter being of great size. A

big cow moose lying in full view did not see us, owing to a small, snow-laden branch across her eyes. Her great jaw moved as she chewed her cud, until I had crept closely, with camera ready. She looked formidable as she took a couple of steps towards me, onto a little rise, her neck upstretched and the tips of her "windmill" ears, about eight feet above the ground.

I had given my rifle to the guide, who finally said, "Don't go any nearer." I took two snaps before she trotted away. When we resumed the buck track, we were surprised to see a calf moose jump to its feet and disappear. This is the only time I have seen a calf fail to keep close to its mother; on one occasion, a little one was pressing against the side of the cow so persistently that the latter was compelled to go very slowly.

As the buck track led us to the river, in the valley, Bob removed his socks and took me across on his back. After a stiff climb, we entered the big growth and three hours from our start on the trail, we came upon a big buck hooking bushes. As he swung sideways to resume his wanderings, I fired as soon as his neck appeared, instead of waiting for his broader shoulder and only caused him the loss of a bunch of hair and one drop of blood from the top of his neck.

ONE afternoon, we came upon a bull moose in a swamp, carpeted so thickly with moss, that we made no noise. He did not go far, as the second shot sent him lifeless to the ground,

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One of the twelve bulls seen on the trip

ON AN ELK HUNT IN THE OLYMPICS

INTO A WONDERLAND OF THE NORTHWEST BEFORE IT WAS INCLUDED IN THE FOREST RESERVE AND UNCLE SAM SAID FORBEAR

By W. A. STERNBERG.

FROM boyhood I have been an ardent sportsman and have had many red-letter days with rod and gun. My enthusiasm in this direction has led me to endure many hardships, but the toughest time I ever had was in the fall of '91, when hunting elk in the Olympic mountains, in the State of Washington.

On the 15th of September of that year, in company with R. M. Swartout, of Hartwick Seminary, N. Y., and Geo W. Driver, of South Prairie, Washington, I left Tacoma, by steamer, and 30 hours later landed at Port Crescent, on the straits of Juan De Fuca. We had arranged for transportation to Lake Crescent, 6 miles inland, where we lingered for a day, lured by the magnificent trout fishing. We then pushed on to our permanent camp at the hot sulphur springs, at the head of the Solduc river. We were transported to the head of the lake, 9 miles, by a small steam launch. Here we were met by our guide, Charles S. Jones, who was provided with packhorses to carry our camp outfit to the springs, 17 miles distant, while we had to walk.

It began to rain almost immediately on our arrival and kept up for three days and nights. About 12 o'clock the third night of the storm we were awakened by a rush of water through our tent, flooding everything. The rest of the night we put in standing under a big sycamore-tree, but we had gotten used to being wet and scarcely felt comfortable unless our clothing was sticking to us like porous plasters.

It was too wet to hunt, so we put in our time bathing in the hot springs, cooking, lingering around the camp-fire or fishing for trout in the Solduc. We kept our larder well supplied, for trout were there in schools and eager for the fly. We were followed into the mountains by our friends, Mr. E. A. Spaulding, of Tacoma, and Mr. C. H. Kingsbury, of Rochester, N. Y., elk-hunters like ourselves.

They reached our camp safe and on Monday, September 29th, our entire party, with the guide, started out for our first real hunt. The result was a fine bull elk, which was started by Spaulding and killed by Kingsbury, 6 miles from the springs. The following day Jones and I were passing near where the elk had been killed, when Jones' dog treed a bear that had been feeding on the carcass of the elk. It terminated his career by putting a ball through his heart. He came plumping to the ground and was soon relieved of his skin and choicest cuts.

Swartout and I had made pretty thorough search for game through all the ravines within a radius of 5 or 6 miles of camp, except the Valley of Veuve creek.

We had one day climbed a high peak and from its crest had discovered some grassy parks at the head of this creek. A few days later we determined to see what we could find in them, for they promised well for elk.

We concluded to dispense with our guide, as he seemed more anxious to dissuade than to go with us. We had proceeded up the creek valley barely 20 minutes when we got into a well-traveled elk trail and struck fresh signs by the score.

Delighted beyond measure, we quickened our pace, for we had a good open trail, and silently but swiftly forged ahead.

We quickly covered several miles, the signs showing we were fast coming up with the herd, when, on rounding a sharp bend in the creek, we suddenly came upon a sight that brought our rifles to our shoulders and set our hearts thumping.

Right in front of us, was a magnificent band of elk, numbering at least 70. There were a number of young bulls but we only saw two fully-antlered ones, one being of enormous size. They were slow in starting off, first bunching up, but the oldest bull was on the farther side and close to the edge of a hemlock thicket. Moved by a common impulse, both Swartout and I took a shot at him, both shots taking effect. He went staggering into the brush and was out of sight in a moment. The other big bull in the meantime had disappeared in the thicket. I concluded to kill one of the smaller ones for meat, but not to shell the herd, for we were not in the slaughtering business. I fired a single shot. At the crack of my gun I saw the elk I had aimed at fall dead and remarked that I "had dropped him neatly." Swartout said: "Why, my dear boy, you don't think you killed that bull?"

"Certainly," I replied. "I had a bead on him, and he went all in a heap at my shot."

"Why, he dropped at my shot!" said Dick. "I did not know you fired."

"Neither did I hear your shot," said I, "however, no matter who killed him, we will have fresh meat in our camp tonight," and started towards the bull, intending to cut his throat as soon as possible. It was then discovered we had each killed one, having shot at the same moment, neither knowing the other had shot, and each supposing the other was claiming his elk. Meanwhile the herd had gone up the steep mountain side with incredible swiftness. Swartout, feeling tired, said he would stay and dress the two slain animals; but I was bound to have the antlers of one of the big bulls and started in pursuit of the band that had headed for one of the highest peaks.

IT was an easy matter to follow the trail and I walked as fast as I could. It was terribly hot work climbing the mountain on the run, and I soon discarded my coat and threw open my flannel shirt at the neck. Wet with perspiration and nearly exhausted I cautiously approached a small park that was nearly a mile high. Peering through the bushes I could see that, as I had hoped, the elk, well over their fright, had stopped and resumed feeding. A heavy cloud enveloped the mountain-top and it commenced to snow. Creeping softly forward I finally reached a clump of bushes, from behind which I could see a number of the elk, some within short rifle shot.

I knew at least one bull was with the herd, for I could hear him whistling. The fog by this time enveloped everything, and though very near, I could not get sight of the bull.

I was getting cold, wet and overheated as I had been, this sudden halt on the mountain top, in fog and snow, was chilling me through and through. My teeth began to chatter so loudly that I thought the elk must hear the strange noise and stampede; but they didn't. Cow after cow passed at close range, but the bull never came in sight. For nearly an hour I maintained my cramped position, when I heard a cautious whistle coming up the mountain-side, nearer and nearer.

I knew it was Dick, in search of me and giving our signal whistle. I dared not reply or move I was so close to the elk, and could only hope his whistle would crack or that he would give up the search and go back to camp; but there was no such luck in store for me. On he came, repeating his call every few minutes, and my chance for getting a fine pair of antlers was fast being ruined. Finally I saw the elk nearest me prick up their ears and listen. They had caught the strange sound. Then the bull gave a shrill whistle. He had scented danger, had sounded the alarm for a stampede, and in a moment they were crashing through the bushes and out of sight.

The jig was up for that day and I was free to answer Dick's call. Crestfallen and frozen I crawled from cover and soon met my solicitous friend. To add to my woe, in 20 minutes the fog lifted, exposing the whole mountain to view, and I would have had an easy shot. Warily we dragged ourselves back to camp, which we reached long after dark, and would have had to spend the night in the woods, in the rain, but for Spaulding hearing our signal-shots and coming to our relief with a lantern.

When Jones heard we had found this band of elk he was angry. He evidently looked upon them as his own property.

I was by no means deterred from my purpose to get a pair of antlers, so early next morning started out to take up the trail. I had no difficulty on reaching the mountain-top in following the elk through the snow down across the range into the valley of the south fork of the Solduc. I followed the trail all day through a steady down-pour of rain, drenched to the skin. Late in the afternoon I came up with them. They were feeding in an open bottom near the creek. I came on them so suddenly I feared I had been discovered. I dropped on the ground and removed my hat. Cautiously I raised my head and peered about. There was but one large bull with the herd and he was a splendid specimen. He was devoting himself to gathering the laggards of the herd and he was full of importance with his new honors. Slowly the herd passed by me, feeding as they went. Finally the old bull came within close range. The rifle was raised, careful aim taken, and following the gun's report the leader fell dead with a bullet through his heart.

The others bunched around him and had I been so disposed I could, with my rapid-fire Winchester, have killed and wounded a number of them; but I had won my trophy; and did not fire another shot. When I showed myself the herd moved off slowly. I felt happy in spite of the fact that I would have to spend the night in the woods, in the rain.

There were no terrors in this for an old hunter. I could get a fire started,

broil some elk-steaks and as early as I could see to travel, start for camp, for some one to help me carry out the head.

It had been raining for ten days, almost continuously, and everything was completely saturated. In spite of my utmost care I could not succeed in getting a fire started. There was nothing to do but take my medicine, dispense with fire and elk steak and console myself as best I could with my lonesome water-soaked sandwich. While there was still light enough to see I busied myself in skinning the neck and head, according to directions obtained from a taxidermist, before starting, and in carefully removing the brain and flesh from the skull. When this was done and the trophies securely fastened up in a tree, darkness had set in and my long vigil commenced. It was too cold to sleep and I put in the night beneath a big pine tree swinging my arms and feet to keep up circulation. Once during the night there was a flash of lightning and then I heard the mournful cry of a panther. The sensation produced on my nerves was not agreeable.

AS soon as it was light enough to see I started out for camp; but instead of taking the back track, which meant climbing a high and difficult mountain, I concluded to follow the south fork to its junction with the Solduc, as it would be down-grade all the way and along well-traveled elk trails.

Jones had told me this branch emptied into the main river twelve miles below his

cabin. I started out at a brisk walk. After tramping steadily until 11 a. m., and finding I was still going due west instead of north, the creek not turning in that direction, as I had expected it would, I concluded to climb to the top of the steep mountain on my right and get my bearings. It took two hours of hard work to get to the top where I at once discovered the south fork still ran many miles westward before it turned toward the main stream, and that the nearest way to camp was to take the back track. The six hours' tramp was worse than wasted for it would take me all day to get back to where I started in the morning, which meant another night in the woods. I was under the impression I was on the crest of the mountain dividing the north and south forks and that by following its backbone I would be saved the fatigue of climbing it again, the dread of which had deterred me from going that way in the morning. There was an elk trail along the crest which made traveling easy, but this trail would suddenly lead down the mountain side and in a short time the crest would narrow to a veritable saw-tooth not more than two feet in breadth. To climb over these organ-pipes was dangerous and slow work. After they were passed I would soon come into the elk trail again, and I had climbed two of these narrow places before I realized that the elk trails left the crest to skirt these impassable points. Much valuable time

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Cow after cow passed at close range but finally a bull hove in sight.

A MANUAL OF WILD-FOWL SHOOTING

PART FOUR OF A SERIES OF ARTICLES DESCRIBING THE TRAITS, CHARACTERISTICS AND METHODS OF HUNTING OUR WATER-FOWL — THE SEA DUCKS

By FREDERICK A. WILLITS.

FAMOUS is the canvas-back. Sportsmen are wont to regard him as the king of ducks. Epicures never tire of singing his praise. He is a splendid bird, both in the air and on the table, but, never-the-less he is inclined to be over-rated. It is admitted he is a fine bird but not always the finest.

The canvas-backs feed chiefly on aquatic plants and their favorite food is the *valisneria*. This plant is popularly termed wild celery, although it is no celery at all, but an eel grass growing entirely beneath the water and found in some of the bays and sounds along the Atlantic Coast and in some sections of the interior. On the Pacific Coast the canvas-backs feed when possible upon a water plant called wapato (*sagittaria variabilis*).

When feeding on this wild celery and wapato the canvas-backs are worthy of high praise, for then their flesh is tender, delicately flavored and truly delicious. But the flesh of the red-heads feeding on the same plants is equally delicious. And the canvas-back shot on waters where no celery or wapato grow is no better than many of the other ducks there.

Epicures claim that the canvas-backs of the Chesapeake are the best. The wild celery was once very abundant on that bay and the canvas-backs fed exclusively upon it so, naturally, they were excellent. But, as a matter of fact, the canvas-backs shot in the vast celery beds of Wisconsin, for example, are equally good, as are also the red-heads and widgeons on that ground.

Not one person in a thousand can tell a canvas-back from any other duck on the table (ducks whose diets are largely fish excepted) when the other duck in question was eating the same food as the canvas-back. After all it is the food upon



Male Canvas-back (*Aristonetta Valisneria*)

which a duck feeds, rather than its species, that is responsible for its flavor.

The canvas-back is one of our largest ducks, length about twenty inches, and he is also very handsome. In the male bird the head is dark chestnut red and black on top. The back and sides are white with narrow wavy black lines which give the back the light gray appearance that suggested the bird's name. The upper part of the back, chest, upper and lower tail coverts, tail and rump are black. The under parts are white, the legs and feet gray, the bill black and sloping gradually from the outline of the head. In the female bird the head, neck, chest and upper part of back are dark brownish-red. The rest of the back and sides are brown. Bill, legs and feet the same color as the male bird.

The canvas-backs have an immense range and although classified as a sea-duck, are found throughout North America from the Atlantic to the Pacific. They were formerly extremely abundant in the Dakotas, about the Great Lakes and in other sections of the interior, as well as on the Gulf Coast, Chesapeake Bay, Currituck Sound, and other waters along the Atlantic and Pacific Oceans.

A few years ago these birds came each season in immense numbers to Chesapeake Bay. The abundance of the wild celery was the attraction. But excessive shooting by sportsmen and market hunters and the partial disappearance of the wild celery have greatly reduced the number of the birds. The shooting-grounds on the Chesapeake formerly brought extremely high rentals, nearly all the points being held by clubs, but today many of the points are far less valuable since there is little or no shooting to be had. When one considers the high prices which the canvas-backs commanded in the markets and, therefore, the activity to which the market gunners were stimulated, it is a wonder that a single bird remains today.

The canvas-backs are nowhere as abundant as they were in former years, but there are a few localities where good sport may still be had with these splendid birds. It is reported that the birds are still very plentiful in certain places on the Pacific Coast.

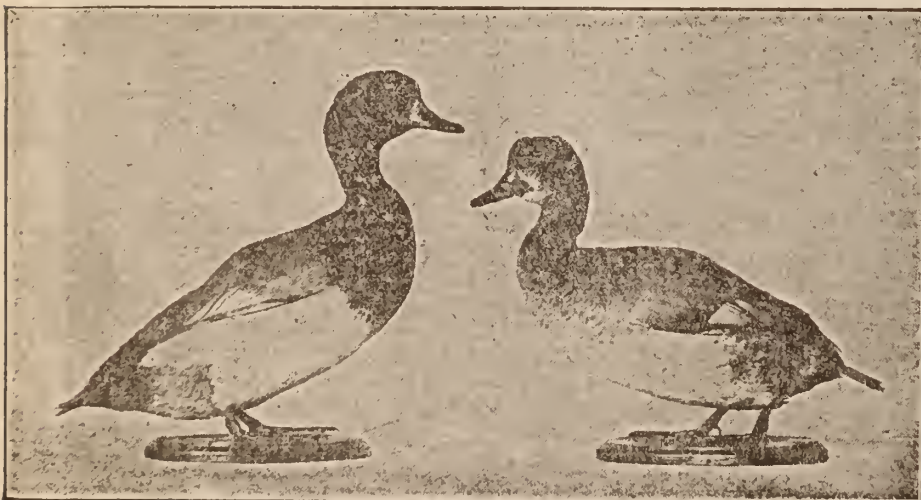
Many states now have wise game laws protecting the ducks. With the stopping of all spring shooting, the shooting from batteries on the feeding grounds, the use of the big guns, and with the limiting of the bag, the canvas-back will no doubt remain in sufficient numbers to exclude the probability of the extermination of the species.

The canvas-backs are fond of deep water and whether on the salt bays along the coasts or in the inland lakes they will be found diving to a considerable depth for their food, while the river-ducks are dabbling in the shallow water.

Canvas-backs are generally very wild and shy and before coming in to the decoys often circle the point several times while watching for hidden dangers. They are more successfully hunted with a flock of decoys painted to represent their kind than with decoys of different varieties.

I regard the canvas-backs as among the wildest and most wary of ducks, but possibly because I have shot them only where they were the least plentiful.

I recall an experience on the bay some years ago. A friend and I were shooting from a little marshy island a few square yards in area, a short distance from the main shore. We were after red-heads, this being a good place for



Red-head—Male and female (*Aethya Americana*)

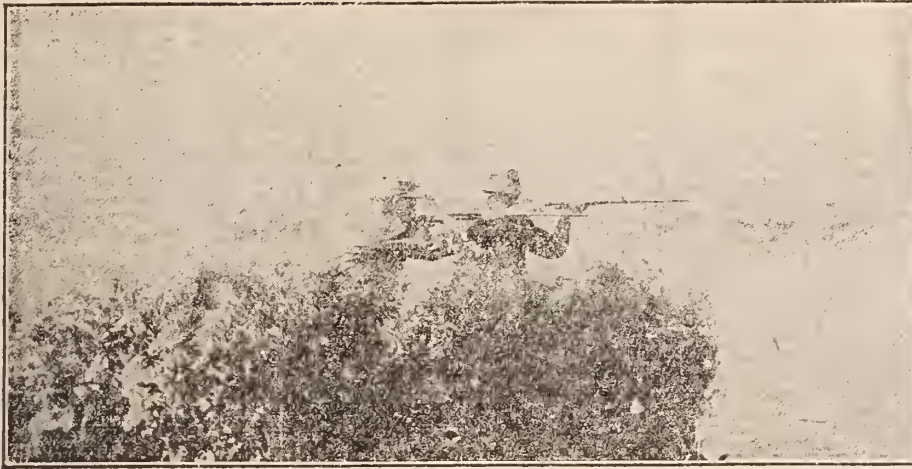


Photo by Lloyd O'Neal.

Canvas-back shooting on Currituck Sound

those birds at that time of year, and we had a small flock of red-head decoys out on the water within easy gun-range of our blind. The flight, however, was poor that day and by late afternoon we had bagged only a few red-heads that had decoyed singly or in pairs.

An hour had passed without our using the guns when we noticed what we thought to be a single red-head a long ways off and very high in the air but flying towards us. The duck came straight on and passed directly over our little island at a height many times too great for a shot. We were perfectly concealed and remained absolutely motionless.

When almost out of sight the duck turned and came back and passed over us again, still far too high for a shot. Again he went but not so far this time, and again he came back, flying over us low enough for us to see that he was a canvas-back but too high to be sure of a shot. For the fourth time the duck turned and this time circled our island out of range. We knew he wanted very much to join those decoys, so we waited patiently.

Finally, after circling us several times, the wary bird, evidently seeing nothing suspicious in the brown rushes of the little island, came for the decoys as if about to alight among them. But when still just out of range he suddenly went straight up in the air and swung off with the wind. We thought he was gone for good this time, but to our surprise back he came and flew very slowly toward the decoys as if watching that island for all he was worth. Then suddenly he seemed to decide that all was safe for he dropped close to the water and with wings set in graceful curves, sailed in over the decoys. My friend bagged him.

On the Pacific Coast the canvas-back is reported a foolish and easily captured bird. That may be true in the far west, but the canvas-back of eastern waters, where they are "educated to the gun," is anything but a foolish bird.

The canvas-backs are expert divers and can remain under the water for long periods at a time. A wounded canvas-back upon striking the water will dive at once

and often come up far out of gun range.

Canvas-backs are sometimes taken by a method called tolling. A small dog is trained to run about on shore near the water after small sticks or stones tossed to him from the blind. The shooters are perfectly concealed. The canvas-backs have a great curiosity and a flock feeding on the water a distance from shore soon notice and are attracted by the performance of the dog. After watching him a short time the birds will often swim toward shore to satisfy their curiosity, until finally within range of the guns.

Some of the other ducks are sometimes shot along with the canvas-back from the same blind. The red-head particularly is often bagged with the canvas-back, since the two birds are so much alike that the decoys of one species will attract the other bird equally well.

THE RED-HEAD.

IN table qualities, size, beauty and habits the red-head is in no sense inferior to its more famous relative, the canvas-back. When the red-head is feeding on the wild celery, wild rice or wapato

its flesh is delicious and second in value to no other duck, but when lacking these delicacies it often has a sedgy taste, and then may be said to resemble that of the scaups or broad-bills and others.

The red-head is about the same size as the canvas-back, or perhaps an inch shorter. In color of plumage both birds are so much alike that the amateur hunter often mistakes one species for the other. Marketers not up in ornithology often have the red-head palmed off on them, at a fancy price, for canvas-back. But the victim of these unscrupulous dealers suffers only in pocket book, since the red-head which has fed on the best of duck food is, when served up well roasted, as fine a fowl as one could desire.

However, the identification of the two species is an easy matter. The grayish back of the red-head is darker than that of the canvas-back and the black waved lines are wider and more like those of the scaup. The plumage of the head and neck is a brighter red, without any black. The bill is shorter than that of the canvas-back and is a dull blue with black band at end, whereas, the bill of the canvas-back is black. The females may be distinguished by the difference in their backs, the red-head being a grayish brown where the other bird is a darker brown.

However, the surest means of identification is the difference in the shape of the heads of the two birds. The head of the canvas-back is decidedly long and narrow and slants gradually backward from the bill. The head of the red-head rises abruptly from the bill, which gives the bird a round, full forehead and crown.

The red-heads have a wide range, covering the country in general. They were formerly extremely abundant about the Great Lakes and the red-head shooting in that region was probably as fine as anywhere. Some excellent shooting is still to be had there. The red-heads are still plentiful on some of the sounds and bays

(Continued on page 680)



Photo by G. W. Whitehurst.

Shooting-wild-fowl from a battery

JAMES ALEXANDER HENSHALL

THE AUTOBIOGRAPHY OF THE APOSTLE OF THE BLACK BASS,
FATHER OF THE GRAYLING AND DEAN OF AMERICAN ANGLERS

EIGHTH PAPER

IT was the custom of Johnnie and I to attend a performance at one of the theatres on Saturday evenings, but we preferred the Baltimore Museum, then under the management of John E. Owens, one of the best comedians of his day. The "Museum" was popularly and facetiously known as the "Methodist Theatre," inasmuch as many people who would not patronize a regular "theatre" felt no compunctions of conscience in attending the "Museum," though the play might be the same, in either case. This may serve to show that there is something in a name after all. However, it made no difference to Johnnie or me, as we each had his conscience under perfect control.

All theatres at that time employed a stock company for the entire season.

we call the soubrette and the ingenue. Among others of the stock company was Joe Jefferson, then playing small parts, one of which, the dumb slave in "Aladdin," I remember very well. His brother-in-law, Charles Burke, a comedian, used to play the title role in the old version of Rip Van Winkle, which he made a low comedy part. It is very likely that Jefferson's predilection for the character of "Rip" caused him to have the play rewritten and improved by Dion Boucicault. At any rate he adopted the character as his own, and his own it surely was.

Jefferson was a good angler, was very fond of fishing, and indulged in the sport whenever an opportunity offered. In 1877 soon after the death of Samuel Phillippe,

various living human freaks such as giants, dwarfs and fat women. Naturally, there occurred occasionally some amusing and unlooked for incident during a play. One of the most laughable happened one evening during a hard fought melee between some sailors and pirates on the deck of a vessel. The leading man was supposed to be shot in the forehead, and falling face downward would again rise to renew the combat with his face streaming blood. For this contingency there were several holes in the floor at one side of the stage, and the wounded actor staggering toward the place, would fall with his face over one of the holes, through which a stage hand would thrust a brush saturated with a red liquid.

On the night in question the combatant, unfortunately, fell with his face over the wrong hole, while the brush appeared at another one near by, wagging furiously in plain sight of the audience. The actor, in his agony, wormed and wriggled his body to the right hole, but, alas! the brush popped up at the other hole again. Then "Gallagher" did the right thing in the circumstances. He sat up, and seizing the brush he proceeded deliberately to smear his face with the crimson gore, and then thrust the brush through the hole, and leaping to his feet he again entered the thickest of the fight. This brought down the house," and the delighted audience yelled and laughed long and boisterously, crying "encore; encore;" while Johnnie shouted "Let 'er go, Gallagher."

Another amusing affair happened one evening during an engagement of Gus Adams, a heavy tragedian and a contemporary of Edwin Forest, and like him, possessed of a fine physique and an admirable stage presence; and on this account he played Jack Cade, Metamora, and other copyright plays of Forest. Unfortunately, Adams had one besetting sin. He was addicted to an occasional indulgence in too much red liquor, usually ending in a fit of jim-jams. On the evening referred to, Adams, during the play, Rolla I think, was to appear on the stage leading a child by the hand, and as his pursuers gained on him he was to rush up onto a slender bridge spanning a chasm; and from there, while brandishing his sword in one hand, and holding the child above his head with the other, his bare, brawny arms showing to great advantage, and gesticulating wildly he hurled defiance and obloquy to the soldiers below.

On this particular occasion Adams was just recovering from the effects of one of his periodical sprees, and was in a very irritable state of mind. It so happened, that at the last moment, it was ascertained that the little child who had taken part



Along the Little Miami River near Cincinnati, Ohio.

Tragedians and other stars played weekly engagements, usually with a different play each night; from which it is apparent that the position of a stock actor was no sinecure, inasmuch as he was compelled to study and play a different part each night, or at each performance. Nowadays an actor may personate a single character during an entire season.

We always looked on the stock company of the Museum as a happy family, and we were quite familiar with the capabilities of each and every one, and withal felt a kind of proprietary interest in the entire company. We were in love, of course, with the "lady's maid" and the "housemaid," which in modern parlance

the inventor of the split-bamboo fishing rod, Jefferson visited his home in Easton, Pennsylvania, and purchased from the daughter one of Phillippe's split-bamboo rods. He also gratified his natural taste and artistic temperament by painting very meritorious landscapes. He and my friend, the late C. T. Webber, of Cincinnati, one of the modern masters of painting and sculpture, used to spend considerable time painting and fishing at Jefferson's winter lodge in the Louisiana lowlands.

The auditorium or theatre was situated in the top stories of the Museum building, while the lower rooms were occupied by collections of natural history, and also by

at the rehearsal was suddenly taken ill and could not appear. Here was a quandry. It would not do to inform Adams in his excited and nervous condition, and no other child was available.

At last a bright idea, or rather an inspiration was suggested by some one. Among the freaks on exhibition in the rooms below was a dwarf about the size and weight of a five year old child, but he was adorned with a full beard, and possessed of a deep bass voice. But any port in a storm. The dwarf was hastily dressed in the absent child's clothes and a kerchief wound about his neck and shoulders to conceal his whiskers. His appearance was well calculated to deceive, and at the right time he was delivered to Adams, who taking him by the hand led him up the stage speaking the lines of the play.

Then the enemy appeared, and catching up the "child" with his left hand, and unsheathing his sword with his right, he rushed up onto the frail bridge, holding the child aloft and shaking him vigorously, and gesticulating wildly with his sword he hurled defiance at the foe. Meanwhile the 'kerchief had become disarranged disclosing the flowing whiskers. The dwarf viewing with fear and alarm the wild, glaring eyes of the actor who seemed about to dash him down to the soldiers below, said in a deep, gruff voice:

"Here, Mr. Adams, don't let me fall."

Then Adams, surprised at hearing the hoarse voice, looked up at the supposed child, and seeing the whiskers, rushed madly off the bridge, down to the stage and through the wings threw the dwarf into the lap of the fat woman who was looking on, and exclaimed in a loud voice: "Got 'em again, By Hee!"

ONE evening at the Fair of the Maryland Institute, among other interesting things on exhibition, was a sewing machine, the first of its kind ever exhibited to the public. It was the invention of Elias Howe. The stitch was the lock stitch, the same as used to-day, though the needle worked horizontally while the cloth was held vertically. This was changed afterward by other inventors to the vertical needle and horizontal material. The most vital and most essential feature, however, and without which the machine would have been useless, was the eye in the point of the needle, which was the invention of Howe, and from which he amassed a fortune in royalties alone.

An old colored woman, having in charge a little white girl, was greatly interested in the demonstration of the machine by an attendant. The child said:

"How does he do it, Mammy?" to which the nurse replied:

"He duz it wid 'is feet; cum along honey, its cunjah wuk. Somebody mus' a unchain' ole Satan an' tun' 'im loos'; le's go an' see de funnychuah and de man blowin' glass bubbles."

Whenever a minstrel show came to town Johnnie and I were sure to be on hand near the front row of seats. While we laughed heartily at the "nigger eccentricities" of such old-timers as Eph,

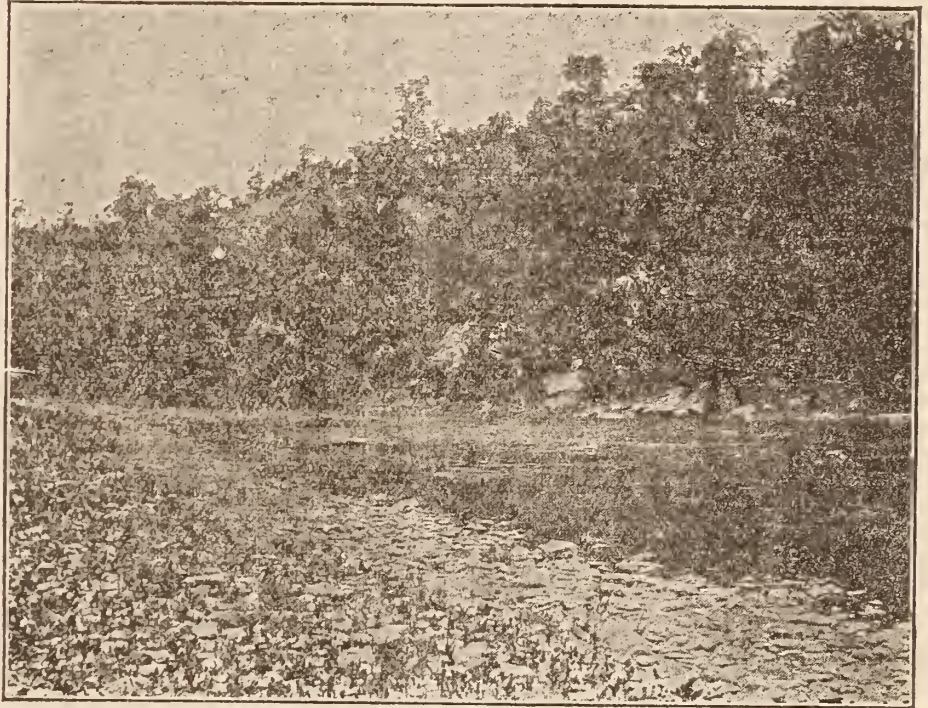
Horn, Luke West and Harry Lehr, we greatly enjoyed the vocal and instrumental features, and most of all the ever fragrant and undying melodies of Stephen Collins Foster. Undying, indeed! For as long as genius, originality and true harmony are appreciated his matchless and immortal melodies will never, never die. And sometimes on spare evenings, when the air was balmy and redolent with honeysuckle and jessamine, and the soft moonlight filtered down through the quivering leaves, we would pick up our banjos and repair to the porch where we played and sang Foster's masterpieces, "Old Folks at Home," "Old Black Joe," and "Old Kentucky Home;" and in the pauses between the verses of the plaintive old songs we would be encouraged and rewarded by the handclapping of our neighbors.

Bowling was the favorite and popular game in those days and bowling alleys were numerous. The game of billiards was just being introduced. The tables were very large with six pockets and the game was played with four balls. The small ivory spheres did not appeal to us

"levy"—twelve and a half cents, and a claret punch or a port wine sangaree for a "fip"—six and a quarter cents, and a genuine Havana cigar of good quality for the same price—a "f' penny bit." Domestic cigarettes were unknown. The remembrance of those happy, humdrum and halcyon days seems more like a pleasant, reminiscent dream than an actuality, in contrast and comparison with the present strenuous and demoralized, if not degenerate, days of inflated prices, freebooting and profiteering.

THE time had now arrived when it became advisable and necessary for me to apply myself seriously to the study of medicine. Therefore, in due time, I reluctantly gave up my pleasant position and bid farewell forever to mercantile affairs. Johnnie, also, was soon to go to St. Louis to accept a business position in that city, where he had relatives. It would have been better for him had he remained there; but of that more anon.

I made my second trip to Cincinnati via the Baltimore and Ohio Railway,



Where Dr. Henshall first met up with the gamest fish that swims

then, our preference being for bowling. We did not fancy, however, the full frame of ten-pins but greatly preferred the game with three balls, known as "cocked hat." Johnnie declared that rolling a large ball among ten pins was much like shooting into a flock of birds, while the game with three balls was more like shooting at single birds, and therefore more artistic and sportsmanlike; and Johnnie was nearly always right.

We devoted two or three evenings each week to bowling, playing three games out of five for the oysters and wine. At "Shamburg's," a first-class restaurant, one could get a half dozen large fried oysters, Maryland style, with bread and butter, cold slaw and pickles for a

which had then been completed to Wheeling, West Virginia. It proved to be quite an improvement on my former journey over the Pennsylvania Railway, as instead of passing over the mountains by means of inclined planes I now passed under them through tunnels. The trip was also shorter, being entirely by rail.

After leaving Cumberland, Maryland, some gentlemen seated near me were conversing about fishing, and naturally I became an interested listener. Their conversation was mostly about a fish they called black bass, and they were very enthusiastic regarding its gameness and its desirability as a food-fish. I had never seen nor read of the fish, nor even heard

(Continued on page 676)

BOBBING FOR EELS AND SELLING FROGS

THE SIXTH INSTALLMENT OF A SERIES OF STORIES DEPICTING THE SIMPLE JOY OF FISHING AS EXEMPLIFIED THROUGH THE EYES OF YOUTH

By LEONARD HULIT, Associate Editor of FOREST AND STREAM.

MR. WOODHULL was thoroughly alarmed when he saw Matt take his involuntary plunge in the creek as it was at the spot where they had fished during the afternoon and he knew the water was deep, besides he had no knowledge as to whether the lad could swim or not. There was also the danger that he might strike a snag or other obstruction in the water. He kept the jack-light thrown on the water as he crossed on the tree trunk and was delighted to see the lad come to the surface and strike out vigorously for the bank, apparently uninjured. He gave him a helping hand as he scrambled up the bank where he stood a minute, a picture of righteous wrath and disgust. "I do' know," he began, as soon as he had cleared his throat of mud and water, "who done it. I just set the bag o' suckers down by the tree, when, quick's a flash he grabbed me by the neck an' one leg an' when I yelped he ducked me in. Gosh, I didn't know's anybody was so mean, 'sides Aunt Mary'l meb'e stop my fishin'." The night air was cold and as the boy soon gave evidence of being chilled, they hurried their departure, walking as rapidly as the traps which they had to carry would permit and reached the cottage before Aunt Mary had retired. That personage was horrified and as usual somewhat critical. "It comes aloug of your're gettin' into a fight," she said excitedly. "Good lands, you're wet as a rat. I'll make a cup o' tea and you go change your clothes while I do it." While Matt was upstairs Mr. Woodhull gave a full statement of the affair, assuring the aunt that there had been no dispute, and that neither had been given opportunity to see who the assailant was. "I know well's I want to who done it," she replied, "so does Matt, but he wont say so till he knows for sure. Ned Southard's mean as pizen, pickin' on smaller boys. The'l be another ruction sure next time they meet." The boy came down stairs with dry clothes on while his aunt was still busy around the stove fixin' a warm bite as she termed it, and he looked but little the worse for his experience. Aunt Mary had formed a great liking for Mr. Woodhull whose pleasant manners appealed to her, besides she had a sort of paternal feeling toward the man. His marked improvement in health as a result of the out of door life he was leading in company with Matt was doing him good. But one thing she could not understand: why a man of refinement and education should take such a fancy to her clumsy, unlettered boy. Aunt Mary had never gone "fishin'" ner had been initiated into its soulful mysteries. The answer to her would serve for many, many thousands of others who do not understand the strange friendships which spring up and grow

between what seems like strong opposites in the many walks of life. "What'll you ever do with all them suckers?" she asked as Matt and his companion regaled themselves with the luncheon. "The's more'n half a bushel." "The's never been a time when any was wasted," said Matt. "Somebody allus wants 'em at some price. I aint worryin' none 'bout that. What beats me is who soused me in the creek." "As if you didn't know well's as you need to," said the aunt. "The's only one who would do it and he's forever picking on you for no reason -s I know of." "The's a lot o' difference 'tween thinkin' an' knowin'," returned Matt. "I know who kicked the eggs, 'cause I seen him. I don't know who soused me 'cause I on'y felt him, but," he continued, "the's ways o' finding out things' thout makin' any noise. Let's go bobbin for eels to-morrow night," he said, as his friend was preparing to leave, "I'm goin' to dress the garden over an' get plenty of worms. You don't have to wash or moss 'cm to make bobs" "Good land," broke in Aunt Mary, "I should think you'd got bobbin 'plenty for once, while maybe Mr. Woodhull had best not be out nights nor around the water so much—but," she added in a lighter vein, "somethin' seems to be agreein' with you."

Mr. Woodhull agreed to be over the following afternoon prepared for the trip and expressed a great desire to see eels taken in the manner described by the boy.

MATT was around early the following morning, had the chores done and was washing his fish when his aunt came down. She paused a moment, looking over his catch and remarked: "They run big, don't they?" "They're mos' all spawnin' oves," was his answer. "The's plenty for us, I guess," he said, as he threw two large ones to one side. At breakfast he told his aunt he intended building a frog pen down by the well drain some day. "What do you want o' frogs?" broke in the aunt, and as was her custom, dropping her knife and fork and looking at him curiously. "Well," said Matt, "the's no more plantin' 'mong the farmers; it's all done an' it's too early for berrin', 'sides Mr. Woodhull says he'll sell all the big frogs I can catch at a good price. The's lots of 'em along the brooks an' places I know." "Well," said the aunt, "when folks want frogs to eat they can have 'cm for all-o' me."

Matt divided his catch of fish, taking one-half in a large basket and put a wet towel over them to keep them fresh, then started out. In less than half an hour his aunt was surprised to see him come in the yard swinging his empty basket. "I had good luck right off," he said. "I met Mr. Baker down the road. He's got some men makin' fence an' cleanin' up, said the

fish'd come handy—but he held me down in price—gave me half a dollar, that's all," and he handed the money to his aunt who took it without comment. The balance of the fish was then put in the basket and he again started out. While in one of the houses that he stopped at, a boy of about his own age said: "Got ducked las' night, didn't ye, Matt?" "Who said so?" asked the latter quietly. "Ned Southard tol' me an' he tol' others too, said he heard it first thing this mornin' how you slipped off'n the bank clean over your head." Here was evidence of substantiating quality. Matt had told no one but his aunt and from Mr. Woodhull no word could have reached that point so early in the day, besides he would not have given out that Matt had slipped in through accident.

He had sold to the wheelwright the last of his fish and was seated on a bench talking when who should drive up but Southard himself with some repair work to be done for his father. Giving a signal to his friend to keep mum Matt dodged behind a stairway when Southard entered the shop and seated himself where Matt had sat a moment before. "Did you hear how Matt Buckley got ducked las' night?" he asked the first thing. "No," said the wheelwright and he paused in his work to get the story. "Well, 'twas like this, him an' that sick dude what's fishin' with him all the time went out spearin' suckers an' Matt gettin' too close up, slipped an' went in clean over his head. Didn't hurt him none though I guess. Washed some of the freckles off meb'e." Matt could stand no more. "You're tellin' a plum lie," he exclaimed, as he walked from behind the stairway boldly, well knowing his friend the wheelwright would protect him. "You grabbed me by the neck an' one leg an' heaved me in, not carin' if I drowned or not; nen you scooted like a skunk." Southard jumped to his feet on hearing his voice and the two stood glaring at each other savagely for a moment when the older of the two seated himself on the light saw-bench with his back to Matt and a look of contempt on his face. Matt stood leaning against the work bench at the side of the shop when his quick eye took in the fact that the wheelwright had thrown some shavings and blocks of wood into the old stove to warm the glue in the pot on the top. Like a flash he grabbed a leg of the light bench on which Southard was seated and with a savage yank dropped him heavily to the floor, at the same instant he grabbed with the other hand the brush which was in the warm glue and buried it deeply in the curly hair of his enemy, leaving a flood of the sticky substance where it would do the most good, or damage, and before the exasperated South-

ard could regain his feet Matt was through the door with his basket, piping back to the wheelwright: "Charge the glue to his father."

When he entered the gate at his home his aunt knew by a glance at his flushed appearance that something was on foot, but she said nothing, knowing that the story would come out in good time, whatever its nature. He gave her the balance of his money, amounting all told to but little more than one dollar. Small as the sum was it helped out by just that much in providing table necessities. He took down his hoe and rake and went to the garden where he worked until noon, "dressin' the garden," as he called it, meanwhile gathering a can of worms for making the bobs.

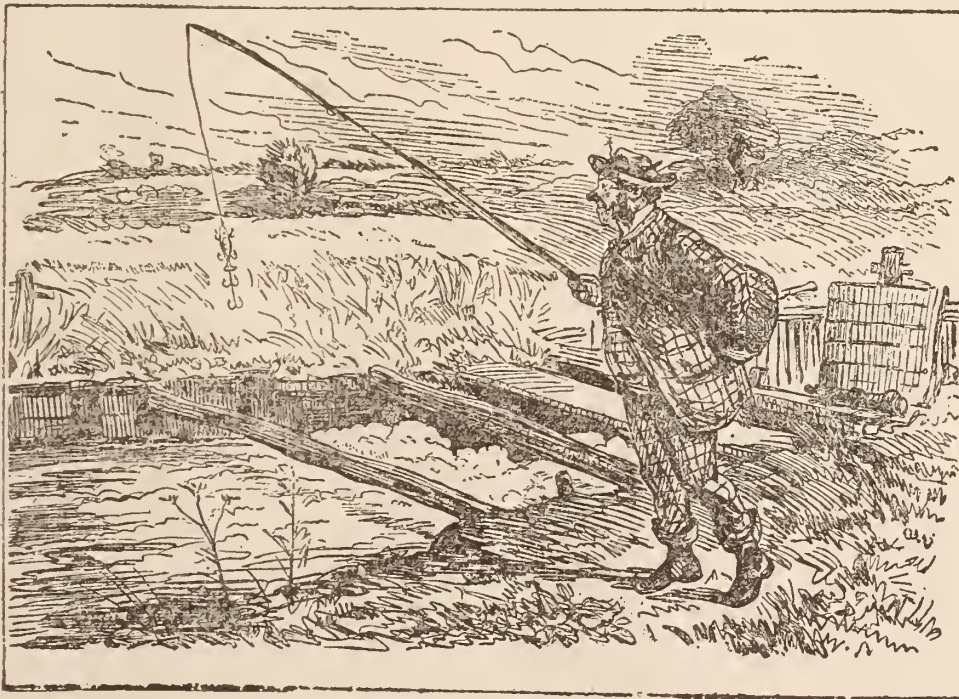
During the dinner Matt said in his quiet droll way: "Seems 'ough Ned Southard's gittin' mighty stuck up lately, seen him in the wheelwright shop this mornin' an—" "I should think he would feel proud of last night's work," broke in the aunt, "I know he done it most as if I'd seen him." "I know it too now," Matt rejoined. Then he related how he heard Southard telling the wheelwright how he had slipped from the bank and the subsequent wetting. "I'd a faced him right there with his 'bomnible lie," said Aunt Mary with an unusual degree of warmth. "I did," said Matt, "'Nen I upshot his bench an' sloshed his hair ful o' hot glue. Gosh; but I'd like to see him com'in' it out." Again Aunt Mary laid her knife and fork down and sat with one elbow resting on the table looking at him in mute astonishment. "He'll never get it out 'till the crack o' doom," she said, when she could find words. "The crack o' doom wont help him none," said Matt, as he shoved back from the table. "He'll have to have his head shaved," and the boy chuckled as the picture returned to him.

MR. WOODHULL was around as agreed at three o'clock, anxious as a school boy to be initiated in the secrets of eel bobbing. Matt had two large sewing needles and a supply of linen thread ready and was waiting his friend's coming. Threading the needle with a six-foot length he doubled it and tied a knot in the end. He next proceeded to string the worms on, using the eye end of the needle as it would follow the channel through the worm and not pierce through so readily as the point, then passing the worm on down to the knot in the end of the thread. Each worm was treated in the same manner and just touched the end of the preceding one. He continued until the thread was full, then, knotting another thread to the first the process was continued until a string of fully twelve feet was made. Mr. Woodhull was a most interested spectator until he caught the idea then he set about making a second string and while not so handy at the job as Matt, he was soon working it well.

"Did you take any cold from your wetting last night," he asked as with their heads close together they threaded the worms. "Have you any idea as to who it was who would play so dangerous a trick?" "No, don't seem to have got any cold, but I sure felt chilly like goin' home, 'sides 'twasn't any trick at all, 'twas clear spite." The boy related the egg episode which amused his companion greatly and then added: "'Sides I told him this mornin' I knowed who done it an' I hot-glued his hair for him." On hearing the adventure of the morning Mr. Woodhull lay over on the grass convulsed with laughter. "I am much afraid though," he said, "he will do you some great injury." "Not if I see him first he won't, he's bigger'n me an' stronger but he can't catten me in a foot race," replied Matt, smiling.

Before it was time to start for the lower mill basin where Matt said their chances were best for getting good eels, their friend of their former trips stopped at the gate. He had been away on a business trip and had just gotten back. He, like Mr. Woodhull, was much interested in the construction of a bob, which after being strung was looped back and forth until it was not more than four inches in length and making a bunch of considerable thickness. This was wound with thread quite loosely so as to not cut the worms too much, Matt remarking: "The more thread you get on the better you get the eels." "How do you fasten the books in this mess of worms?" Mr. Adams asked as the bobs were pronounced done. "We don't use no hooks," replied the boy, "eels has got a row of fine teeth along their mouth edge an' when they take holt an' pull we just yank 'em out on the ground" Both men seemed incredulous but as Matt had made good with so many things he had told them of in relation to the ways and kinds of fish in the neighborhood they did not openly dispute his assertions about eels getting the thread fast in their teeth. Mr. Adams was not prepared to go with them that evening but had come over to have a talk about a trip extending over a week or more down the river later in the season. Aunt Mary was called in consultation and the plan talked over. Mr. Adams would furnish a shelter tent and provision, then they would take a boat from below the lower dam on the river and go down to salt water, getting such fish as were to be had on the route. Matt of course was all enthusiasm, but Aunt Mary, with her usual diplomacy, reserved her decision.

(To be continued)



The Fisherman fares forth to fish.

FOREST AND STREAM

FORTY-EIGHTH YEAR



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THE OBJECT OF THIS JOURNAL WILL BE TO studiously promote a healthful interest in outdoor recreation, and a refined taste for natural objects.
 August 14, 1873.

HEALTHY THOUGHTS FOR THE BOY.

TO every healthy lad there comes at a certain age the desire to learn all that he can about what is going on in the world outside the limited range of his experiences, and thousands of writers are ever striving to supply the boys' demand for literature. The boy reads for entertainment, not, consciously, for instruction; yet he is informed and instructed by his reading. He wants stories that tell him what people do in distant lands, or at least under conditions that differ widely from those with which he is familiar; yet these stories must be exciting, must appeal to his imagination. What he reads should be so chosen as to give him an interest in some healthy subject.

There is no more wholesome reading for a boy or young man than the columns of FOREST AND STREAM. Whether you look at it from the physical or the moral side, there are no more wholesome topics in which to interest those approaching young manhood than those to which FOREST AND STREAM is devoted. Outdoor life, shooting, fishing, nature study—if a boy takes an interest in these or in any one of them—are anchors which will tend to hold him steady when he is brought face to face with the thousand temptations which must come to every young man during the formative period of his life; temptations which no amount of care or coddling can keep from him.

Parents who are wise enough to recognize the best way to keep their son strong, wholesome and clean in thought and life, will make every effort to encourage in him an interest in some wholesome pursuit; something that he may think and dream about, and which, by filling his mind with interesting and improving thoughts, will leave in it less room for other thoughts, not virulent nor helpful, that may tend to harm him.

Above all things then, strive to give your boy an active interest in something wholesome. If he enjoys shooting, induce him to share your interest in the pursuit of game.

The lad is imitative, he will want to do what his father does, whether it be shooting, fishing, camping or sailing. Take him out with you when you go. When he is old enough, give him a gun—or a fishing rod, or a boat or a tent or a microscope, as the case may be—and teach him how to use it. We believe that the things mentioned will help the boy more than most other things, because the boy is naturally an outdoor creature; but if he has a mechanical turn of mind, then get him a box of good tools or a simple engine.

Above all, give the boy something to do, interest him in something, and you will perform for yourself, for your son and your country services whose worth cannot be measured.

FORESTRY FOR THE NATION

A NATIONAL POLICY of forestry seeks the protection and beneficial utilization of our present forest resources, the renewal after cutting of forests on lands not needed for agriculture and settlement, the stability of forest industries and of satisfactory conditions for forest workers, and the restoration of forest growth on lands now unproductive and idle.

The public interest in the continuance of forests justify and require direct ownership of extensive areas, and also participation by the public in working out the problem of protection and renewal of private forests. A program of forestry for the Nation should include action by the public through the Government and the States, action by land owners and operators, and the means of uniting the efforts of all for the achievement of a common purpose.

The service of forests is not alone local; it is national as well. For the products are widely distributed without reference to State lines, the industries are engaged in interstate business, and the protective benefits of forests often extend far beyond the localities where they are situated. It is the function of the Federal Government to take the leadership in formulating a national economic policy that gives consideration to the relationship of all forests to the industrial life of the country. The central Government alone can bring about concurrent and harmonious action within given regions. Its research and educational work may be directed to the problems of the Nation and of regions that comprise more than one State. Representing the whole Nation, the Government can stimulate and guide local action where individual States by their own efforts would fail. The Government can act to organize all agencies affected by the forest problem in a united undertaking to inaugurate and carry out a program of forestry.

The States have not only the function of handling the public forests owned by them, but they have also a direct responsibility in the protection and continuance of private forests. In this, the Federal Government should take part to meet interstate and national problems, to stimulate action by the States, and to bring into harmony the efforts of the different States. In the problem of private forestry, the Government would work through and in co-operation with the States. The legislation affecting the private owner in the matter of protection and continuance of forests should be by the States. The Government should help the States in formulating plans and developing methods and by direct assistance in carrying them out. The assistance offered by the Government should be contingent upon the States taking legislative and administrative action to provide for the protection and renewal of forests.

A national policy must recognize the problems of the private owner of forests. Greater security of forest property from fire, better returns from timberland in the long run, and more stable industrial conditions must be sought. A program in which the public participates and recognizes industrial problems, like taxation, would enable private proprietors to handle their forests in a way not to be a public injury but to serve in building up the localities in which they are situated.

There should be an extensive program of public forests, owned by the Nation, by the States, by municipalities, and, too, by quasi-public institutions and organizations. The public forests to-day comprise about 25 per cent. of the total forest area of the country. They should be extended to include ultimately from 40 to 50 per cent.

Adequate funds should be provided to enable the Government and other public agencies to carry on investigative work needed in carrying out a national policy of forestry. This would include investigations on a larger scale than at present in determining the best methods of forest practice, and also research in forest products.

A program for the Nation must be an aggregate of local programs adapted to different conditions, and correlated and standardized through the Federal Government to meet the broader requirements of the whole country. A national program cannot be put into effect in its entirety at once. Local programs will also probably have to be worked out by steps. Some States are already able to go forward more rapidly than others, partly because of their financial strength and partly because experience has already demonstrated the methods of protection and forestry required to secure results on the ground.

The initiation of a national policy of forestry requires as one of the first steps the passage of a Federal law that recognizes its objectives and provides authority and means for the Government to extend co-operation with the States in the protection and perpetuation of the forests under their jurisdiction along the foregoing lines. At the same time, Federal appropriations for the purchase of forest lands should be greatly increased.

Much can be accomplished pending such a law. Thus, there should be at once a joining of hands in a most vigorous campaign for fire protection, that will educate the public to the dangers from fire and lead to more effective action in all forest regions. Individual States should go forward with plans for better legislation and larger support of forestry. But the passage of a basic Federal law with the aid that the Nation can offer would make possible the inauguration of a policy that would secure results impossible without national action.

GEORGIA GAME LAWS

GEORGIA has taken a step forward, in that she has put "teeth" and sharper and more teeth into her game laws. The act now clearly defines the penalties for violation of the game laws and provides that the penalty cannot be less than \$10.00 nor more than \$100.00 and all of the court costs, or in lieu of the fine, violators must work upon the public works, which in this State means the chain-gang, not less than 10 days nor more than 90 days. The impression prevails throughout part of the State that violation of the game laws is a misdemeanor and that the court may impose a fine as low as \$1.00. The penalty for the vio-

lation of the game act is treated as a misdemeanor but provides also that the punishment mentioned above must be inflicted so that no fine will be less than \$10.00. There has been in the past a good many fines in the State for violation of the game laws, the great majority of them being purely nominal,—\$1.00 or \$2.00 or maybe \$5.00, many people care little about the fine, but as the law reads now, the court must impose a very substantial penalty.

SUGGESTIONS FOR FIELD NATURALISTS.

THE Bureau of Biological Survey has just published a circular entitled "Suggestions for Field Studies of Mammalian Life-histories" which contains some interesting hints for the field naturalist.

For many years leading museums have been acquiring exhibit and study material representative of different groups of birds and mammals, until at present the American collections are in many respects unsurpassed by those of any other country of the world. This relative completeness of research collections permits increased attention to the study of life histories.

Equipment of field investigation of habits of mammals need not be elaborate and will often be at hand where needed. Pick, shovel, ax or large hatchet, trowel or large spoon, brushcutter, grasscutter, tapeline, sketch pad, coordinate paper and writing materials usually suffice for ordinary work. A bump of resourcefulness on the part of the investigator is perhaps the most important item of initial equipment.

The study of mammalian life-histories opens a field of activity for any sincere student with an enthusiasm for closer acquaintance with wild life. No human being and no book, but Nature herself, is the supreme authority in natural history. The beginner may make as important an observation as the veteran investigator. The efforts of all are needed if our fund of information is in any sense to be complete.

Any department of natural history, if pursued in the proper spirit, is replete with interest. But none, perhaps, promises a greater return in real satisfaction than the study of the home life of wild mammals and birds.

The Bureau of Biological Survey, U. S. Department of Agriculture, solicits correspondence from any individual or institution planning work of this nature, and will be glad to assist with advice or suggestions as opportunity may be given.

IMPORTING QUAIL FROM MEXICO

UNDER authority of law, notice has been given by the Secretary of Agriculture, that until further order, permits issued or which may be issued under the "Regulations Governing the Importation of Quail into the United States from Northeastern Mexico," approved and effective November 13, 1916, will authorize the entry of such quail only between November 15 and March 31 of the following year, inclusive.

In order to reduce the danger of introduction of quail diseases, applicants will be required to show that they are qualified to handle quail in captivity and are prepared to care for them under approved sanitary conditions during the period of quarantine. The right is reserved to issue permits only to those who are properly qualified and have facilities to care for the birds in accordance with the regulations.

This is entirely just and proper and will tend to eliminate the careless and inhumane treatment attended birds on such movements throughout the country.

NATURAL HISTORY

SOME INTERESTING NOTES FROM DIFFERENT PARTS OF THE COUNTRY CONCERNING THINGS OF INTEREST TO THE LOVER OF OUTDOOR LIFE

BOB-WHITE VERSUS DOVE

THE dove and the bob-white (*alias* quail in the north, *alias* partridge in the south) are not dissimilar birds. They are both of the upland, not unlike in size, seeking their food on the ground. One does not see them dabbling in the creek like a black duck, stalking fish like a heron, climbing trees like a woodpecker, darting about over the fields like a swallow, or flitting among the branches and leaves after the manner of a host of insectivorous birds. Naturalists used to consider the two rather closely related, and, from force of habit, many still classify them in adjacent categories. Both are swift flyers, though the dove doubtless excels in speed as it obviously does in distance flying.

Though not gifted with the voice of the thrush, the calls of both species are among the most pleasing of nature's sounds. That of the dove, which has a mournful cadence to most ears, would perhaps be missed the least, and also the bob-white is the more destructive to insect enemies of the farmer's crops.

From the point of view of domestic economy dove and bob-white are in marked contrast. The former lays but two eggs, and its squabs are at first perfectly helpless and dependent on their parents in every way. The bob-white lays sometimes as many as eighteen eggs, and the little quails are wide-awake and "on their toes" from the very first. While they still have the appearance of small fuzzy chickens, they can fly like bumblebees for a short distance.

It is plain then, that compared to the more or less stable year to year abundance the annual production of doves is small, that of bob-whites enormous. Query: What becomes of the bob-white? In a limited degree the foxes, the weasels and the birds of prey can answer this question. By no means every quail consumed is served on toast and eaten with knife and fork. Probably these agencies about compare with legitimate shooting in the number of birds they account for, but more than shooting, are constantly eliminating the weaker or less alert individuals, and improving the race. They become very destructive only when the birds are weakened by cold or hunger. It is in hunger and exposure that one should look for the chief drain on the supply of bob-white. When food runs low or shelter is distant one sees the dove hurtling through the sky in search

of either or both, but the bob-white stays in one general locality no matter what the conditions—to live or perish.

Though writing in a natural history column it will not be out of place to call attention to how some of these facts effect the availability of the two species as game birds. The natural production of doves is so low that they can not be expected to stand up against any considerable shooting. When they seem to do so, we suspect the shooting is at some favorable point where they concentrate from a wide area, and the hunters are shooting out somebody else's birds. However swift of wing or good to eat, the dove is not suitable for game. The natural production of bob-white is so high that legitimate shooting should never threaten their existence. Let the sportsmen help solve the food and shelter problem (conserve the thickets, plant small evergreens, and plant strips of buckwheat to furnish food through the winter) and he will have the satisfaction of saving as many birds as he destroys.—J. T. N.

A GOPHER ABOVE GROUND

ONE afternoon I met a gopher out on the desert grass. This was in northern Arizona several years ago. He seemed dazed and out of his element for gophers generally spend their time underground building sub-ways, and generally messing up the landscape. When I touched him with my foot he turned on me peevishly and seemed entirely unafraid, making no attempt to run away. Presently he turned his round back on me and commenced going south. He dug frantically with his large forepaws until he had accumulated a double handful of earth when he suddenly whirled about and pushed the earth away with his head and forepaws. Then he resumed digging and again pushed the accumulated earth back. This kept on until he was lost to sight and only a hole remained.

DWIGHT FRANKLIN, New York.



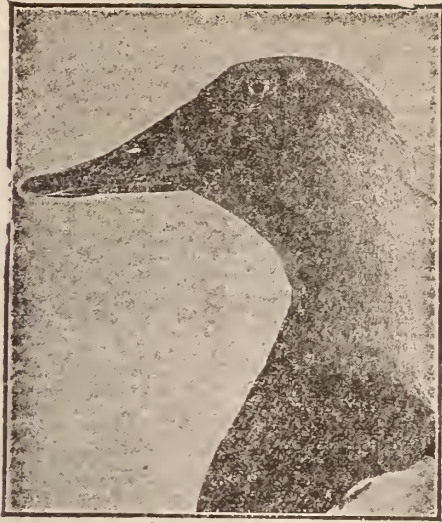
DESERT GOPHER

BAY DUCKS OF Genus *Marila*

THE five species of ducks included in the genus *Marila* are the canvasback, red-head, scaup, lesser scaup and ring-necked duck. Four of these birds are unquestionably well known to all lovers of duck-shooting, but nevertheless there are several things of interest about the group as a whole which are worth pointing out.

Ducks are divided by general consent into two great groups, the fresh-water, non-diving, river or pond ducks, and the salt-water, diving, sea or bay ducks, to which among others belong the *Marilas*. Every sportsman knows that a mallard or black duck "tips" for its food, while a redhead or scaup dives. This is about the only real distinction, however, as far as names go. Everybody knows that canvasback, and in fact the whole *Genus Marila* is more abundant in the Central West, where there is no salt-water, and who has not seen black ducks go out to sea in the North Atlantic States while on the Gulf Coast of Florida all the "fresh-water" ducks spend the whole day at sea. The distinction in feeding habits is undoubtedly good, but let no one suppose that a "non-diving" duck is incapable of diving. He does dive, especially when wounded.

What, then, are the real differences, if any? One will be labelled by my readers as a pure technicality, and they will be right. The hind toe in all ducks is placed high up, and has ceased to be of the least use. In the "fresh-water" ducks it is a normal toe, but in the "sea" ducks it is flattened out and looks just like a disk of thick skin. How this ever came about the writer has not the faintest idea, as it cannot account for any differences in life-histories or habits. During this hunting season some reader may kill a black duck and a scaup on the same day and he might be interested to see for himself. Fortunately, however, there are much better differences, which are purely matters of close observation. How is it that an experienced duck-hunter can tell pretty accurately just what a flock of ducks is that gets up off the water a quarter of a mile away? He will probably name the species, but can certainly tell to which group they belong. It is obvious that the salinity of the water has nothing to do with the case, nor can he see their hind toes! The fact is that the two groups can be separated by their *shapes*. "Fresh-water" ducks are comparatively slim with slender, long necks and a comparatively



The Canvas-back

ducks, thus getting extra power and speed.

There is one other interesting point about the *Marilas* that is connected with their ranges and migration habits. Why is the scaup common on the coast of Massachusetts and the canvasback rare? Persecution is not an absolutely conclusive answer. The true answer is a difference of breeding range and of migration route. The nesting area of the *Marilas* is, generally speaking, the central prairie lake region of the continent from the Dakotas north through Canada. From this comparatively small area the migrating birds scatter in a huge fan embracing nearly the whole of the United States. As far as the Atlantic States are concerned it is obvious that the migration route is a diagonal to the south-east. But as the coast runs northeast to southwest, it is apparent by glancing at the map that Virginia and Long Island are almost equidistant from the breeding grounds. This is the reason why canvasback arrive in Chesapeake Bay and Currituck Sound at about the same time or even earlier than they appear on Long Island, a fact which has caused astonishment to many. As a matter of fact, there is more to it even than this. Flathead Lake, North Dakota, and Western New York are two excellent places for canvasback, both nearer the breeding grounds than Long Island or Currituck Sound. But they do not reach there any earlier either. This can be accounted for by the habits of the bird. Its migration is purely a question of cold weather and open water, and it does not leave its breeding grounds in any large numbers until the season becomes unfavorable. With comparatively few exceptions each canvasback has its particular winter feeding grounds. It is highly unlikely that a canvasback wintering in Currituck Sound one year will winter in Western New York the next. So when the time comes for it to leave its nesting



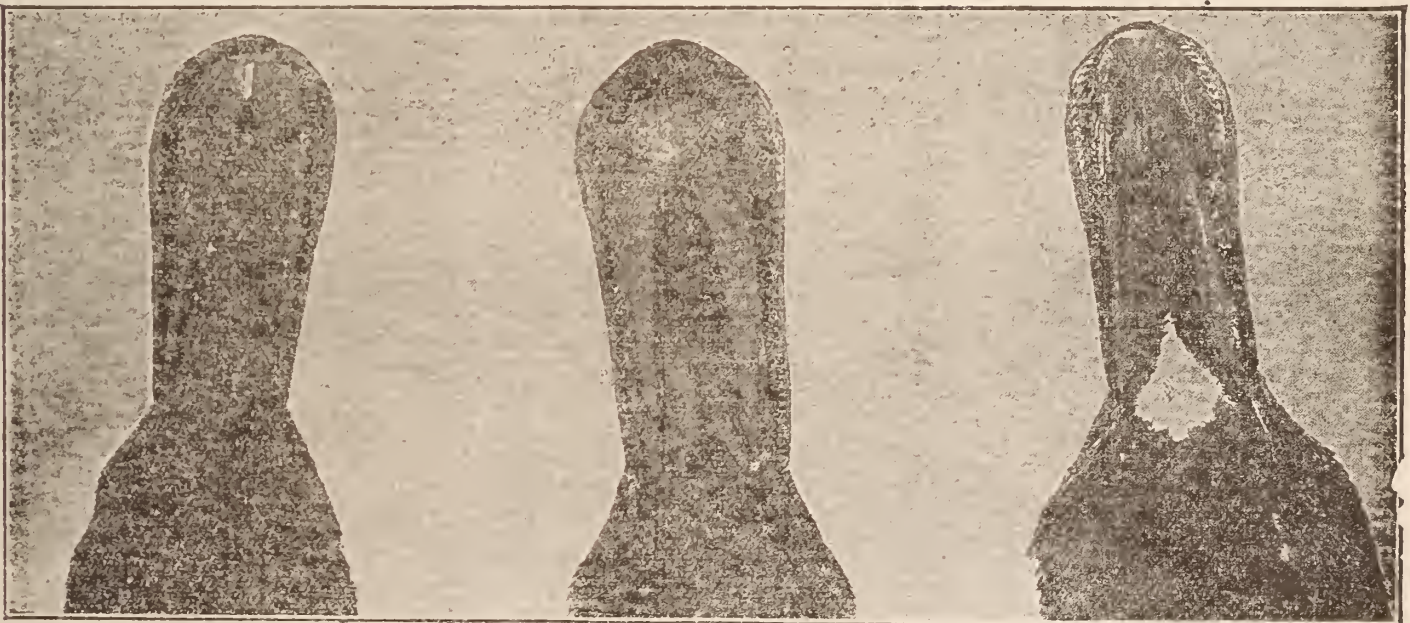
The Red-head

narrow head. *Marilas* are stockily built, with a short neck and a rounded head. In "fresh-water" ducks the wings are long and slender, tapering gradually to a point, while in *Marilas* the wings are comparatively shorter, broader, and either coming abruptly to a point or what is loosely termed rounded. In flight, another excellent character is the way the wings are used. *Marilas* flap their wings much more rapidly than most "fresh-water" ducks, and always the tip of the wing describes a narrower arc in space. This is a somewhat difficult point to follow, and in figures the statement amounts to this, that if we assume that a black duck flaps its wings 100 times in a minute, a canvasback would flap its wings 150 times, as each flap takes less time. This is the explanation of the rapid flight of a green-winged teal which can outfly even the large and powerful canvasback. It flaps its wings just as rapidly, but over a greater space as in other "fresh-water"

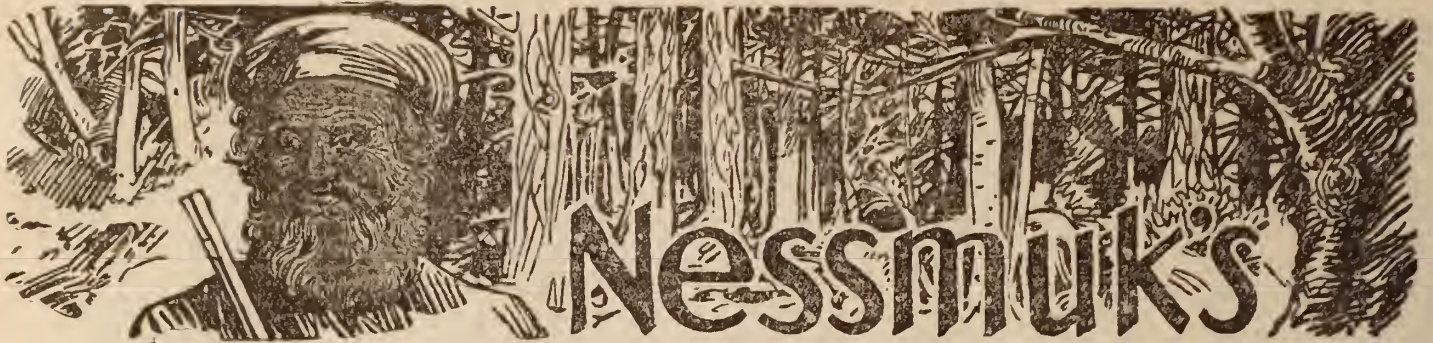
grounds it makes for its winter feeding grounds, and in most cases gets there, with no stops on the way. So now we can see why the canvasback is so rare a bird except in places which answer its tastes.

The scaup duck breeds much farther north in numbers. Its southeast diagonal consequently brings it much farther north along the Atlantic States in numbers. Here we have the answer to our question about the comparative abundance of the two birds on the Massachusetts coast. If we go still farther north to Labrador, we get entirely outside the normal diagonal, with the result that all *Marilas* are casual stragglers to that coast. The ringnecked duck's migration route is the most southerly and the least easterly of them all, so that with the exception of a very few birds from Virginia southward it never reaches the Atlantic Coast at all except a few stragglers which clubs take pride in mounting and pointing out to visitors.

LUDLOW GRISCOM.



Photographs courtesy of American Museum of Natural History
 Bills of drake lesser and greater scaups (known also as little and big broadbill or bluebill), and ringnecked duck (left to right), natural size. These three species have black heads. The scaups differ from the ringneck in having a white stripe in the wing, and from another in size, especially of the bill.



MAKING DUCK DECOYS

By D. W. O'NEIL, JR.

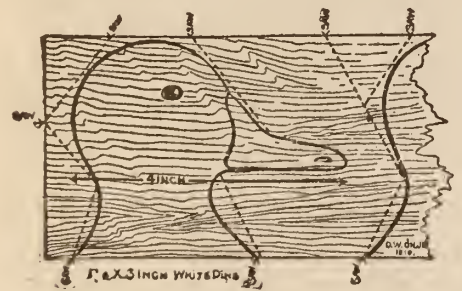
WITH the cost of decoys ranging from twenty-three dollars a dozen for the best grade of cork stool down to seven for the lowest grade of the wooden variety and the prices still going up, not to mention the taxes and all the bother of fitting them up with weights and cords I made up my mind to try the experiment of making a set of cork stool myself and if successful to let the other members of the Duck Hunting Clan in on the secret.

We live in the heart of New York City and get all our shooting out on Great South Bay and in the adjacent swamps, getting in Saturdays and holidays during the season at very little expense because we know our ground and waters well after years of experience.

I have my own home-made duck boat and set of stool that came from a mail order house several years ago at the rate of \$3.49 per dozen but times have changed and now the price of stool with glass eyes is at least triple that amount.

How well do I remember the first flock of five stool that I had. They were just blocks of wood sawed out and painted black with blocks of smaller wood nailed on for heads, with no shape or any particular liking to a duck, but they served the purpose for a whole season.

The birds seemed to know that there was only a single barrel gun there to guard the stool for I got some wonderful chances at big flocks, capped off with the time fifty came in at once and by quick



work I managed to get my first double. My, how happy I was that day. Then father promised to get me the long teased-for new gun for Christmas.

Christmas came with the new gun and I sold the old musket for eight dollars to a country boy I knew and sent by the next post for the above-mentioned stool.

The bay froze over before they got to me, however, so it was not until the next year that I was able to use my new rig which I had completed by the making of a dandy hunting boat for myself.

FOR tools you will want the following list of implements to best proceed with the work at hand, but substitutes may be made if imperative.

Hammer, screwdriver, wood rasp (flat on one side round on the other), gimlet, sand-paper, saw, jackknife, whetstone, pencil, rule and a one-half inch chisel.

Procure from a lumber yard a five foot-length of clear white pine or cedar, one and a quarter inches wide by three inches deep and have it dressed on four sides as the marks will show better (for black-

WE are depending upon the friends and admirers of our old correspondent Nessmuk to make this department worthy of his name. No man knew the woods better than Nessmuk or wrote of them with quainter charm. Many of his practical ideas on camping and "going light" have been adopted by the United States Army; his canoe has been preserved in the Smithsonian Institution; and we hope that all good woodsmen will contribute to this department their Hints and Kinks and trail-tested contrivances.—[EDITORS.]

duck you will want at least seven feet). Mark out your heads on the side of the pieces according to the style of duck you are going to make. I shall speak of imitating a broadbill entirely in this article and changes in the measurements given for other varieties of ducks will be easily figured out from the ones given here.

The head should be about four inches long over all and the details on cut No. I. will give you the proper dimensions to draw to, also the first step in sawing the cuts as marked. My advice is to saw out one head at a time and then do the splitting later.

After having made the saw-cuts as per the diagram you must be very careful in splitting not to split off too much but work off a half inch at a time.

You now have your heads cut out in the rough and the next step is to split and

whittle the blocks out to the rough shape of the head. First make two saw cuts at the neck three-eighths of an inch deep, then splitting the head out roughly.

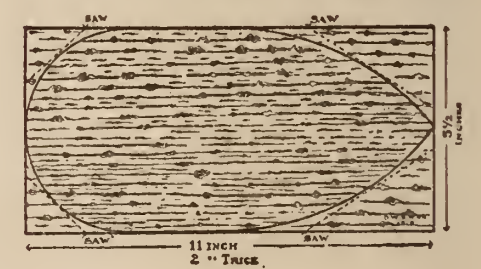
Now take the rasp and knife and work the heads down to the desired shape, first working the bill to the shape shown in I. Then work the neck and the back of the head to the desired shape, finishing off with sand-paper to smooth out the rough spots.

Drive in two furniture tacks for eyes, and you have your heads completed and the hardest part of the job done.

NOW for the bodies of these imitators. Procure from some dealer in rough cork some slabs of two-inch cork five and a half by eleven inches. It is usually sold by the pound. I used twenty pounds for my set and I had especially thick stock. Fifteen pounds should cover two-inch stool and to spare. Cork is worth twenty cents a pound just now and if you do not know of a dealer the Paddock Cork Co., 1209 De Kalb Avenue, Brooklyn can furnish what you require. Cedar can be used in place of the cork but is much heavier and harder to work, and the finished stool is not so lively as the cork ones.

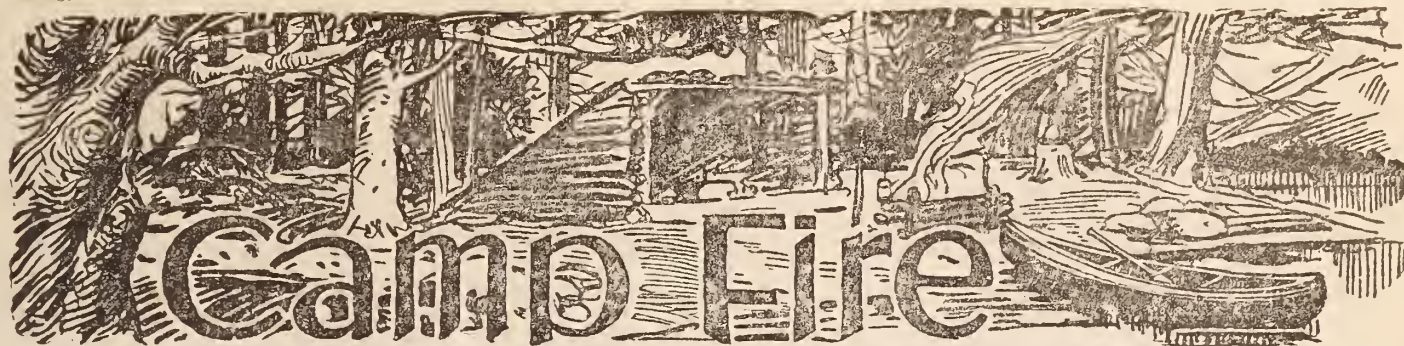
As in Fig. II mark your body shape but not on the smoothest side of the cork, with white chalk, then saw the corners off as indicated. Next trim the block, making the tail about one inch thick at the end. Take your rasp and smooth out all the rough corners, rounding the body into the desired shape.

The third unit of the complete duck is the keel. This should be of white pine,



three-quarters of an inch square and seven inches long, taking a piece seven feet long to do the job.

In the center of one side of this piece cut with your chisel as in Fig. III, being sure to dovetail the cut on the ends in order to hold the lead. Make this cut one-half inch deep and four inches long



Drill two holes with the gimlet about an inch away from the cut as shown in Fig. III.

Now procure some old lead and melt it up so that it can be run into the cuts in the keels, bringing the lead even with the outside of the keel. Then, taking your knife carve your initials on the side of the keel and screw a brass eye into the end of the keel to hold the anchor and we are ready to assemble our ducks.

Procure twelve brass screws about one-half inch thicker than your cork and after boring the holes in the right places with the gimlet, drive the screw through the cork from the bottom side and be careful to drill out the screw holes in the necks so they wont split, screw the heads fast to the body as in Fig. IV.

With the gimlet bore the holes for the copper wire through the bodles at the proper place to meet the holes in the keel and using old telephone wire, stripped of the insulation, fasten the keels to the body as in Fig IV.

Your duck is now completely assembled and should resemble closely the living bird in shape.

Painting comes next and here the individual taste of the gunner must come in. My own method is to paint eight males and four females out of the dozen, but some differ.

I make the black and white marking of the male broadbill and the brownish red and white markings of the female. The bills of both sexes are painted a bluish

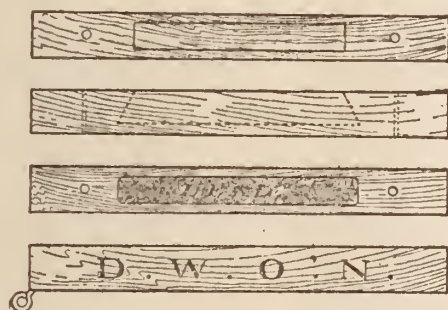


Fig III.

gray and I put some rough splashes of white on the back of the male birds for the grayish marking of the live bird of that sex.

Attach to each stool a six foot length of cord with a weight of about six ounces to hold your stool in its place in the flock

when you are hunting. I used lead sinkers but a brick split in half serves admirably if you are not too particular.

The work is now completed and all you have before you is the thorough enjoyment of knowing that if you don't get your share of ducks in the future it will be the fault of the man who points the gun.

Take your rig the first chance you get and go to that favorite point of yours and as the day is breaking place your stool twenty-five yards off shore and be careful not to shoot your stool because they will look very natural if you follow the above directions.

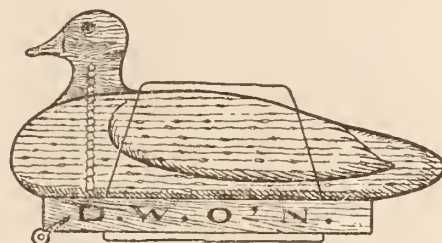


Fig. IV.

Go to it, old timer, and the youngster, as well, and let's create some new decoys this winter so that next year the birds, being more plentiful because of the Federal Law we will get glorious days on the rivers, lakes and marshes.

A HAND POWER ROW BOAT

THERE is untold pleasure in gliding about in a hand-power row boat, taking it easy and enjoying the scenery, fishing or sociabilities on a placid lake or cove at twilight, or the pleasure extends itself throughout the full day. This idea was born of love for the open and at the same time it is healthy and a novelty.

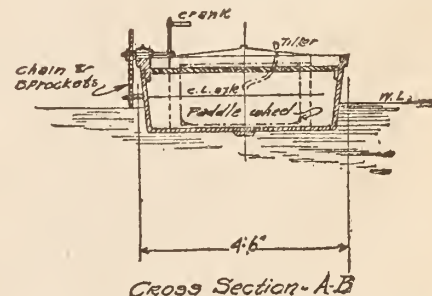
The rear seat may be fitted with the top half of a strong arm chair and cut out so as not to interfere with the tiller. A cane seat is advisable as it is strong and tough and permits of a pillow, or cushion being placed in the seat for the further comfort of the boatman. It is especially adapted to quietly nosing in here and there with your rod and line and with the axles, chain, and crank well greased, there is practically no noises as the boat approaches.

The chain and sprocket wheel are outside the gunwhale, so as not to soil hands

or clothes with oil. At night it is well to throw a piece of canvas over the chain and sprockets as the rain or dampness rusts the chain. Use an application of good heavy automobile grease and it will stick for a long while

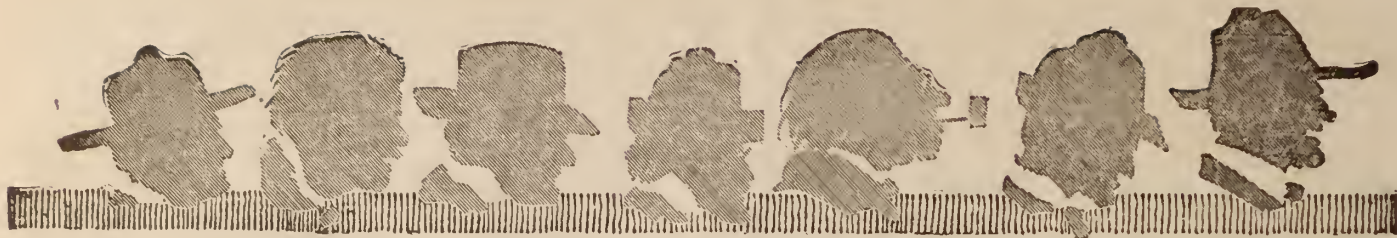
NOW, as to building the power boat, proceed as follows: Use a regulation, good condition row boat, thoroughly clean, scrape and overhaul it and make it tight and sound for the season. Then measure the outside or rear (or stern) and let this figure govern the size of the paddle wheel frame.

This frame is made of pieces of ordinary flat iron procurable, cut, bent and drilled at any local blacksmith for about one dollar. The frame is made of 3/16" x 1" or 1 1/4" iron and connecting bolt or rivet holes should be 1/4". Make 2 pieces for extreme bottom, 2 for middle or shaft hangers, and 2 for braces which come down from top edge of seat to outside edge and bolt in place. Use heavy galvanized or brass screws in attaching irons to wood and if bolts are used in frame construction instead of rivets, provide them with lock washers. Make 2 more pieces, one for top rear and the other for bottom rear of the frame which then makes a box-like enclosure inside of which the paddle wheel revolves. To the top and bottom rear pieces drill 1/4" hole in each in center, for holding the rudder. The best way to go about the construction is to block the boat up about 14" from the ground near the water edge and in such a position that the boat can be skidded sideways or endways into the water with-



out fear of harming or bending the iron frame, although it will stand some hard knocks without distortion, due to its novel bracing. Make the rudder of heavy galvanized sheet iron, the same as is procurable at any plumber's shop; cut to shape and rivet to it at bottom and offset hook

(Continued on page 670)



A WILD TURKEY INCIDENT.

To the Editor of FOREST AND STREAM:

READING the story about wild turkey hunting as told by Mr. H. H. Sheldon in FOREST AND STREAM, started a reminiscent mood and I thought perhaps the readers of FOREST AND STREAM might be interested in what I might have to tell along this line. Although the incidents happened more than half a century ago, they are fresh in my memory yet.

The fall of 1864 found the writer at Fort Rice, in what is now North Dakota, some forty miles below where Bismarck now is, in the service of Uncle Sam. For some unknown cause, apparently, a large number of the boys were taken down with typhoid fever after the command had returned to the Fort from a raid after the Sioux through the Bad Lands and Yellowstone River country, and when the march was resumed down the river from Sioux City, four of us young boys were left behind in the hospital, being too sick to be taken along. Some of the 30th Wisconsin Regiment who had been doing guard duty at the Fort were ordered home, and instead of marching down they built several large flatboats, or scows, and made the trip down the Missouri River in them, and we four men were invited to accompany them, so we went down with Company F.

Some of the old boys are living yet, and I hope this may catch the eye of one of them, mainly because I am going to digress a little and remind them of the baked beans we had. Did you ever eat beans baked in the ground? If you have not you do not know what a good baked bean tastes like. We were three weeks making the trip from Rice to Sioux City, a distance placed at some nine hundred miles, and we had baked beans for breakfast nearly every morning during that time. The beans were boiled during the day on a stove on the boat. The boats were always tied up for the night about sundown, and as soon as we landed two men were always ready to dig a hole some three feet deep in the soft earth. There was plenty of dry wood, and a fire was kept burning in the hole until it was full of live coals. Half of these coals were then scooped out with a long-handled shovel, the kettle of beans set down in the hole and the coals shoveled back and then dirt thrown on top. In the morning the kettle was dug out and we had—but don't talk about it.

One night we tied up at a point some half a mile above the then small village of Vermillion, on the opposite side of the river, and fortunately right where a large flock of wild turkeys were just

LETTERS, QUESTIONS AND ANSWERS

going to roost, and when it had gotten too dark to see to shoot, the Wisconsin boys had bagged, with their Springfield rifles, thirteen fine birds, and we feasted on turkey for several days.

After considerable delay at Sioux City we four Minnesota boys finally got started by mule team for home. Before starting, the writer learned that one of the mule drivers had a shotgun, and we asked him if we might use the gun if we got some ammunition, and he said, yes. We left Sioux City in the afternoon, our route being up the Floyd creek. After we had gone some six or seven miles we left the wagons, crossed the creek and followed up on the east side where there was not much timber, expecting to find some ducks. Just as we rounded a bunch of brush and a bend in the creek, there, in plain sight, and but a few rods away, was a flock of turkeys running across a beaver dam. The gun was brought to my shoulder, but instantly lowered again, for the question was: are they wild turkeys or not? The other three boys yelled: "Shoot, shoot." So I brought the gun up again, and without really taking aim pointed it at the string of birds and fired one barrel, and one fine bird fell over. The others rose and flew off into the woods. The boys retrieved the bird and we stood looking at it and admiring it when we noticed two men start out from a house that stood on a rise of ground some quarter of a mile away, and come directly for us on the run. We were scared, and did not know just what to do. Some were in favor of running, but I said: "No use in running. If we should reach camp they can come and get us, so let us stand right where we are until they come up, and if we have committed a wrong take our medicine." When the men were a few rods from us the leader said: "Well, you got one, did you?" "Yes, I said, we got one." "How many were there?" he asked. We knew, for we had counted them as they flew away. "Thirteen," I answered. "The same flock my brother saw this morning and tried to drive home, thinking they were my tame turkeys."

Perhaps there were not four relieved boys. Thus, I killed my first and last

wild turkey, but had I known they were wild I could just as well have had three or four with the two barrels.

C. A. BENNETT, Minn.

THE RABBIT AGAIN.

To the Editor of FOREST AND STREAM:

IN the July number of FOREST AND STREAM there is an article on the use of ferrets which seems to me unfair.

First I must say that the statement that the rabbit does "no harm to trees" is simply not so. The rabbit is a browser and lives mainly on trees and bushes during a large part of the year. It is only in comparatively rare instances that it does damage to any other tree and bush crops. In nurseries it is an unmitigated nuisance. Three or four rabbits caused about two hundred dollars damage in my nursery a few years ago. The trees were none of them killed but were simply barked so as to be unsalable.

Here, as in most parts of New York State, it is impossible to take cottontail rabbits in any way except by the use of ferrets; that is, except for the occasional one which may happen to be killed by a snap shot as it starts for the nearest hole. No rabbit will run more than a few hundred yards without taking refuge under ground. This makes it impossible to hunt them with dogs unless we can develop a breed of dogs small enough to follow them into the holes. If hunting rabbits with ferrets is prohibited it should also be made unlawful to hunt birds with dogs. The rabbit driven out of a hole by a ferret has fully as good a chance as the bird flushed by a reasonably good shot before a dog. A good many years ago I had spent nearly the whole hunting season with much enjoyment trying to get some ruffed grouse which lived in various patches of woods near home. One day I very foolishly took a neighbor and his dog over the ground and he killed the five birds in five shots. Not one of them had the least chance for life. The whole business was mechanical. The dog would mark down the bird, the man would come up until he was about a rod away. The bird would fly and come down within a few seconds. It was almost as much sport as it would be for me to kill a chicken for dinner. I am a poor wlng shot or I might have killed possibly three of these birds during the fall under circumstances that would have been worth remembering. Many times I have flushed them, shot, missed, marked down, figured which way the bird went after it got out of sight, flushed again, etc. A whole half

day or more after one bird, but if I had killed it, it would have been because I knew enough about its habits. In the same way, I prefer to hunt rabbits without a dog. I had a dog once who was a wizard on rabbit trails but here we needed a ferret to help him out.

I feel that I am speaking reasonably when I say that there are hundreds of rabbits on our farm but it is doubtful if any group of men with the help of the best rabbit dogs in America could kill three rabbits on this place in any one day. With skillful tracking or a good dog two or three men by the aid of a ferret could get four or five rabbits in the same time under favorable conditions such as usually come three or four times a season.

There is another side to the question of rabbits which is prominent under our system of game laws. As our laws are now administered it is a very serious matter for the owner of the land if the game animals get too numerous. If every game protector in the state had a beat say two miles square so that he could hear any shooting that might be done there and so that he could know the boundaries of each man's land and then if he were required to arrest and prosecute every person found hunting on the land of another without written permission from the owner our present laws might really protect the game and tend to make it more plentiful.

Since I have already written at length I might as well make it a little longer and present part of the cat question as it appears from the point of view of the farmer. It is already beginning to seem that the cat agitation is likely to cost the country large sums of money in the loss of crops due to the increase of mice. It is safe to say that a very large number of mice are killed by the wild ranging cat for every bird so destroyed. The well fed cat of the suburbs will often kill large numbers of birds but the cat one sees in the fields far from buildings is likely to catch more mice than birds simply because they are more numerous and easier to catch.

There is also the question of the real economic status of the song bird. We may count the ragweed seeds in the stomach of a tree sparrow and figure how many millions of such seeds that bird would have eaten if it had stayed here all winter. The whole makes a staggering total but when we come to count the seeds on a single plant of ragweed and figure how many weeks it would have fed the bird and realize that one or two of these seeds are all that would come to maturity in any case we are not sure of the correctness of our statements.

I am as vigorous in the desire for the protection of song birds as any one but it seems to me that we are on a perilously unsafe foundation when we make such statements as the common one that "without the birds agriculture would be impossible." Taking an average over the whole year and over the whole country the robin may do more good than harm but in certain fruit growing sections at

certain times the reverse is most decidedly true. The similar case of the bobolink has been recognized by the administrators of the Migratory Bird Treaty Act.

It is to be hoped that I have been fair in this statement. It may seem to be a large collection of objections but in the final analysis the protection of our game rests with the landowner and he is not to be won over by statements which he can see are not just in accord with the recorded facts or with a just application of those facts.

ALFRED C. WEED, New York.

ON TRAPPING.

To the Editor of FOREST AND STREAM:

IT has been a puzzle to me all my life why trapping is looked upon as unsportsmanlike and why most people regard a man who takes fur bearing animals in traps as being necessarily cruel and unfeeling.

I am very sure that much of this feeling arises from lack of understanding of the art of the trappers in taking the game and lack of appreciation of how thorough a knowledge of the nature and habits of



In close touch with nature.

the fur bearing animals is absolutely necessary to anyone wishing to be a successful trapper.

I am sure that any man who makes even an ordinarily good showing at trapping must possess an amount of woodcraft superior to the man who, often depending on hired guides, goes out and brings in his allowance of deer or other game. The trapper must also possess powers of observation far above the average and be able to read all the signs left by his game, no matter how faint and indistinct, if he wishes to have even fair success. He must be able to shift for himself at all times. He must rely on his own judgment as to proper places to set and methods to use. It is a far different proposition to shoot a fox, for instance, driven by a hound than to catch the same animal in a trap.

Pit your wits Mr. Fox Hunter against the fox when he is not driven, when his time is all his own and see how many of you can so far outwit him as to cause

him to place his foot on a space, which you must select for yourself, which cannot be over three inches square. He has his nose to protect him from all your wiles, and he will fool you many times.

The mink, while not by any means as wise as the fox, will also elude you and cause you to wonder if you understand his nature at all, in many instances. The coon, skunk, and muskrat are all easily trapped but a good working knowledge of their nature and habits is necessary if you would secure enough of either to pay for your trouble. As to the cruelty of the use of the steel trap I have never been able to see where it led to any more suffering than the use of firearms. We all know that much game is wounded and escapes each season to suffer and die or get well, as the case may be, by those using firearms. That is an accepted fact and is unavoidable. Any trapper who is at all expert will place all his muskrat traps where the rat on being caught will at once plunge into deep water and be drowned—no suffering there.

The same applies in nearly every case to mink, otter and beaver. This leaves us only the fox, coon and skunk and the laws of nearly all states require that traps be visited once every twenty-four hours so you will readily see that most animals are in reality seldom held in traps for any great length of time.

I will venture to state that any hunter who will take the trouble to learn the art of trapping and follow a trap line for three seasons to get a thorough understanding of the subject will admit that it is not as cruel as the use of firearms and also that it brings one into closer touch with nature.

ERNEST A. BROWN, N. H.

A FEW REMARKS.

To the Editor of FOREST AND STREAM:

IN the first installment of Mr. F. A. Willits' most ably written "Manual of Wild-Fowl Shooting," he has stated "a few swans are still to be found on Currituck Sound, North Carolina." Mr. Willits has in all probability not had occasion to travel over much of Currituck during recent years perhaps.

Mr. E. H. Forbush in his work, "Game Birds, Wild Fowl and Shore Birds," has this to say on page 199:

"The great swan shooting ground today is Currituck Sound. Here the birds find open water, food is plentiful and they are far less harried than on Chesapeake Bay. This is the secret of their increase there, and they will probably continue to maintain their numbers there for years, provided the conditions remain favorable."

This was written in 1912. Last season when coming away from Currituck I will testify there were plenty of whistling swan there then. From a bluff overlooking the Sound on my property I stood one day with Mr. Jasper B. White than whom, as a life-long resident and sportsman, there is no one better informed as to fowl conditions in the

Sound country. He stated then that he would estimate the number of swan within range of the naked eye and what we could pick out beyond with the aid of binoculars as many thousand.

The birds are in bad repute among the natives for like a drove of veritable water-pigs a flock of swan roots up and destroys a dozen times the amount of good duck food it consumes. In the old market hunting days they were never much harried by the professionals since a swan only brought \$1.00 to \$2.00 while red-head and canvasback, much easier to shoot both as to number and species, sold \$3.00 to \$5.00 the pair. A swan was only shot if he happened to come along or when one was perhaps wanted for the holidays or the women folks desired a new feather tick from a few of them.

Anent the discussion regarding long and short barrels your humble servant rises for a few remarks.

After 30 years of play with the gun I recently had my first experience with a length of barrel deviating from the orthodox length of 30 inches.

By a strange mischance my favorite weapon became lost and I found myself gunless in the game country and the season but just begun.

A visit to the nearest city of size disclosed in the window display of a dealer an exact duplicate, as luck would have it, of my former arm as to make, grade, engraving and stock measurements. On picking the gun up I became aware at once that the barrels were somewhat shorter than the conventional 30-inch. The dealer informed me they were of 28-inch length which he no doubt believed at the time they were, as did I myself.

This gun possessed a right half choke and a left full choke barrel; a combination excellent for use upon wild fowl and I so used it heavily during the remainder of the season. As my former arm had been equipped by the manufacturer with a one trigger system, at the close of the season I sent in the new acquisition to be so altered and learned for the first time that the gun possessed barrels of but 26-inch length.

Now W. A. B. in the June number comes out to champion strongly the shorter length of barrels and from my own experience I must approve his judgment. While admitting my score with the 26-inch was not what it would have been had I been swinging my old 30-inch, the length of barrel did not enter into the case, but from the fact that after 15 years use of a one-trigger gun I was suddenly essaying to manipulate two triggers again and two stock lengths, varying an inch in the same arm, with the result that things got somewhat tangled at times.

My normal stock length is 12¾ inches. By installing a single-trigger mechanism in this 26-inch gun the stock length was reduced to 13-inch flat, which of course better balances with the shorter length of barrel and I may say that a better shooting and handling little arm

I have never possessed in the past and scarcely hope to in the future.

To sum up, given like chokes, penetration or pattern does not suffer one wit because of the few inches lopped off, smokeless powder being used. That one gets on his bird quicker by reason of a lighter muzzle is not to be doubted, in fact I often found I was on my bird and leading almost before I realized it, which, when one considers the universal tendency of shooting behind, is a good fault to err in.

Since having the 26-inch refitted with single trigger I have made equally as long and I do not know but longer, shots, and fully as intricate ones at black duck as were ever executed by my former 30-inch.

We may state that the 30-inch swings a little steadier and smoother in wild-fowl work, perhaps, which is more strictly within its province than in the covers. And in the longer lengths of stock a more elegantly proportioned, appearing and balanced arm results from their use, but right here permit me to state that Mr. C. F. Schafer in your September issue is jolly well right when he says "thousands of gunners are tramping afield with gun stocks an inch or more too long for them."

If the average man would seek a gun, at once beautiful in its symmetry and marvelously quick in action I could do no better than commend him to arms fitted with the shorter length of barrels and stocks.

CHARLES B. MORSS, MASS.

LOST!—ONE PERFECTLY GOOD BASS!

To the Editor of FOREST AND STREAM:

WHILE the incident is fresh in my mind, I would like to put on record an experience that I had recently which has left me in a distinctly unnerved state of mind from which I fear I will never recover. It was this way: A tentative "strike" of an hour before, left me with the impression that I had missed a big fish. As is customary in the ethics of a bass fisherman, I deemed it wise to drop the matter then and there and wait an hour before attempting to offer my bait to this particular bass. I waited anxiously for the sixty minutes to drag away and then got into position for another try. Carefully rewinding my reel, that my cast might be a perfect one, I selected the spot where I thought my bass might be hiding—a bunch of underwater weeds—and let'er go. Bang! Smash! I hooked him first essay. My! how that bass performed. As the water was shallow, he didn't attempt to break water, but cut circles around my boat. Fearing that he might get entangled in my anchor rope—for I had dropped the "killick" so I wouldn't drift, I kept a taut line, with thumb on the reel.

I edged up the weight, taking in slack with my foot and then paid attention to my prospective victim. Just then Mr. Bass chose to dive head down into the weeds and I was beginning to drift. I

couldn't budge the fish and I couldn't stop drifting. Finally, in a last emergency, I picked up an oar with one hand and sort of poled back just over the bass. With a steady hand on the line, I lifted and, lo and behold, the fish gradually rose to the surface and floated on top of the water out of reach of my hand; but the hook was exactly in the fish's side and I noticed that it was nearly torn out. Of course there was nothing to do but use the net. Carefully keeping the fish in position, I put the net under him, squarely, and lifted. The fish was too long and too stocky to sag in the middle as I supposed it would, and laid stiffly across the wire top of my scoop.

Gently dropping the net, I attempted to "head" the fish, hoping he would tumble into the net foremost. All this time the enormous fish (the biggest I ever saw, and I have caught at least one bass weighing eight pounds) lay flatly on top of the water without a motion, just out of reach of my itching fingers ready to clutch him by his gill apparatus, and lift him into the boat in triumph.

All this time a friend of mine was near by watching proceedings and, with true sportsmanship instincts offering no suggestions. Too proud—or foolish—to ask for advice as to what to do in my dilemma, and wishing to capture the fish all by my lonesome, I gave another stab with my net and Mr. Bass slid off into the water with a sort of "ha ha" at my clumsy methods.

Even my friend conservatively agreed that this fish as he was exhibiting himself on top of the water would weigh six pounds. Of course, as the interested party, I set it much higher and I would be ready to swear that eight pounds would come nearer to his majesty's fighting weight.

What would you have done in such a situation as mine? Would you have taken the oar and hit him over his head and ended the suspense? I thought of that; but, with a fishing competitor looking on, I thought—like lightning—that such a procedure would forever class me with the "pot-hunter" crowd, so I didn't. Anyhow, I have the satisfaction of knowing that I fought this fish to a point of exhaustion.

I enlist your sympathy in my distress, and I hope that the next time I hook a big bass you will be there to offer such suggestions as will enable me to get results.

ARTHUR T. BOND, MASS.

AN EXPERIENCE WITH A "GOOSE" HAWK

To the Editor of FOREST AND STREAM:

DO you remember how your imagination used to present to your boyish mind the appearance and attributes of birds and animals of which you had heard but had never seen? Also, how these creatures of the world of nature took on exaggerated forms, habits and powers?

Well do I remember that at an early age I first heard stories of the "Goose

Hawk." I had not knowingly ever seen the bird, and it is probable that those from which I received my impressions of him had never consciously seen him, or, having seen him, had never observed his habits and were unfamiliar with his actual characteristics. He was merely a hawk and, to them, "all hawks looked alike."

The "Goose Hawk" as presented to my young mind was a fierce monster of the air whose chief business in life was attacking and killing the great wild goose, either in flight or when resting on *terra firma* or peacefully feeding in field or marsh; destroying him in terrific combat and bearing the body away to distant aerie in tree or rocky ledge, to be devoured at leisure. Later I came to know the bird by his popular proper name of goshawk and learned to admire him for swiftness of flight, indomitable courage and perseverance. My Condensed American Cyclopedica says:

"GOSHAWK, a bird of prey of the family *falconidae*, sub-family *accipitrianae*, and genus *astur* (lacep). The only species in the United States is the American goshawk (*A atricapillus*, Wils.), found all over North America, but most abundant in the north and northwest. The adult female is about 2 ft. long; extent of wings, 4 ft.; weight about 3 lbs.; the male is smaller; the sexes are alike in plumage. This is one of the boldest and most rapid of the genus, and follows with untiring wing the flocks of wild pigeons and ducks; it seldom lights unless to devour its prey, and when thus engaged stands very erect."

It will be seen from the reference to "flocks of wild pigeons" in the foregoing extract that my cyclopedica is of somewhat ancient vintage, or (not an unusual thing) has not been edited up to date. Had the goshawk followed the flocks of wild pigeons he would not now be a terror to the ducks.

Once, when shooting wild-fowl from a stand upon a line of flight in the Missouri river bottom, in Iowa, I had an illustration of the courage and persistency of this bird. We did not shoot from floating blinds in those days, nor seek especially the shores of lakes or streams; the mere proximity of such was sufficient. The bottom lands of the Missouri extending along the greater portion of the western boundary of Iowa, and varying

from three to twenty miles in width, were dotted with lakes, ponds and sloughs or marshes, embracing in area from a single acre or less to several square miles. In these grew wild rice, wild celery, and rushes or reeds, the succulent roots and shoots of which afforded excellent feed for water-fowl, to which the latter were wont to resort for food and wherein, sometimes, they spent their hours of rest from long migratory flights. Their route in journeying between the north and south lands followed this chain of swamp and slough—not the actual course of the river—and their flight was usually not so high as to be out of the ordinary shotgun range in the proximity of these feeding places; so a stand, almost anywhere, on the land along the line (preferably between two of the larger bodies of open water) was entirely satisfactory, and a few bunches of long slough grass, carefully arranged so as to avoid the appearance of an actual structure, served as a screen or "blind" for the concealment of the sportsman, his trusty muzzle loader and his good retriever. I do not mean by this the kind of dog now bred in sporting kennels, as we did not have them, but just any kind of dog that would "fetch."

On an occasion in early fall when shooting from a "blind" such as described above, on a favorite ground a few miles north of Council Bluffs, having been rather successful in my morning shoot. I had looped together my "bag" preparatory to returning to camp for the noon-day rest, the birds lying in front of me and not a yard away, some of them of the brightly colored varieties of duck, when there came a rush of air accompanied by a swish of wing, and a "Goose Hawk" swooped down upon and grappled the string of game. Of course he could not lift the entire lot and he dashed away with feather-filled talons. Circling about for a moment he came again, and I struck at him with my cleaning rod as he drew near enough, driving him away. He screamed as he flew away and soon again made a dash for the quarry. I waved my arms and succeeded in driving him off, but still he returned, approaching within ten feet of me. I waved the rod at him and he poised in air almost perpendicularly, with beating wings, claws extended and eyes gleaming, screaming or whistling

most angrily and viciously. Again and again he returned to the conflict, until at last I was compelled (most reluctantly on account of his courage) to shoot him at short range, blowing him to fragments.

CHAS. H. BABBITT, Washington, D. C.

A CANOE TRIP SOUVENIR.

To the Editor of FOREST AND STREAM:

SOUVENIRS of an outing trip always enhance the pleasure of retrospect.

The cowboy of wild west days used to cut a notch in his rifle stock for each live Indian converted into a "good" Indian. The accompanying picture reproduces my canoe paddle and has helped me visualize to my friends my last trip.

The following procedure will enable the reader to map his route and record the salient features of a trip. Assuming one has available (or is able to make) a map of the water-way traversed, this base map is readily enlarged on engineer's cross section paper, giving only such details as it is desired to reproduce, keeping in mind the limitations of space that are demanded by reason of the breadth of the paddle blade. If your route covers other than a tolerably straight line course, such as may well obtain where you are in a glaciated lake-studded region, it may be necessary to distort the relations of the compass by changing the direction, as shown in the above illustration where the dotted line quadrant indicates this.

With the map prepared on a proper scale, it is transferred to the paddle blade in the following way: Remove the varnish from the blade by sandpapering same; then sprinkle chalk dust from a used blackboard eraser over surface to prevent ink from running. Lay a carbon paper over blade; then the prepared map, and with a blunt pencil trace the outlines of rivers, lakes, and salient points you wish to preserve. Then finish map by tracing with India ink on the blade, using black for the map outlines, and water proof red ink for the canoe course.

Portages should be designated in chain lengths; falls in feet; camp sites may be noted by triangular tent-like locations giving dates occupied. Big game seen such as moose I have marked with a letter M within a circle. A roster of the party and necessary dates should not be omitted. Finally varnish and you have a permanent record of your outing.

H. L. RUSSELL, Wisconsin.



A canoe paddle with the map of a memorable trip etched on its surface.

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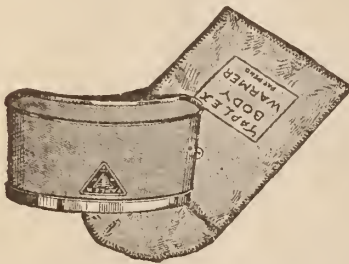
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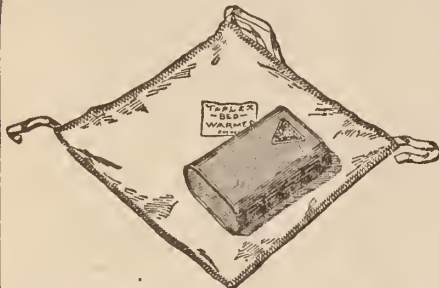
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ARLINGTON—GOOSE TOWN

WHEREIN THE HUNTER DISCARDS DECOYS AND GUNNING PUNTS AND CLIMBS TO A STRANGE HUNTING GROUND

By W. R. MACILRATH.

IF you will look at the map of Oregon, about the middle of the state from east to west, on the Columbia, not far from Pendleton of round-up fame, you will see the little town of Arlington. A small dot and small type suffices. Be not deceived. Arlington has importance out of all proportion to its size.

Its one main street, running up a side canyon from the Columbia, not so many years ago was the center of a great cattle industry; and after the cattle were crowded out by the wheat growers, and the cattle kings, themselves reluctantly started raising wheat, Arlington was the market place and shipping point to which wheat was freighted in wagons drawn by from six to twelve horses, from all the high, rolling, semi-arid country to the south. This was before the railroad which now taps the wheat country of Gilliam County was built.

But with the coming of better transportation much of Arlington's grandeur vanished. Her trade has fallen away from her. The wheat barons now go to Portland or to San Francisco when they want to celebrate, and even to trade, when the local merchants in the little towns all up the wheat country do not have what they want. But while the little town in the canyon has lost some of its local patronage, it still has an asset for which sportsmen come from hundreds of miles around to enjoy, and that is the goose shooting. It is a sort of specialty. Not waterfowl; geese! Very few ducks come there. Not even all kinds of geese, there being comparatively few Canadas. But brant are there by the thousands. In this inland, semi-desert country, the specialty is goose shooting.

Above the Cascades the river changes radically in character. The lofty mountain shores, covered with evergreen trees and practically evergreen grass, which extends from the Cascades to the sea, give way to bluffs of drab monotony. Instead of leaping cascades and cataracts flowing into the Columbia are dry canyons filled with rocks and stunted soapweed.

The sight of ferns, and the smell of green growing things give way to a consciousness of dust and heat (if it is in summer), and the consciousness that one is entering a country of volcanic formation. Great black and chocolate volcanic rocks stick up out of the river and threaten the little steamers as they struggle with the increased speed of the current. The bluffs are of the same material. The narrow bottom between the bluffs and the river is studded thickly with chocolate and black lava boulders, among which some little grass grows and a few cattle graze. When a canyon opens up a view of the country beyond it is dry and sear sage country that doesn't look as if it was worth ten cents a township. Yet

here is the home of bumper crops of \$2 wheat.

The Columbia above the Cascades is a game preserve and no shooting is permitted on the river itself. So great flocks of brant gather there and remain all winter. They stay on the river at night and fly out on the great empire of wheatfields in the daytime. The preserve insures protection and the vast fields food. There is a famous feeding ground some ten miles south of the river known as Shutler Flats, a vast flat wheat country, and about the first large body of wheat land south of the river. The geese are very partial to this tract; the majority of them going there to the exclusion of thousands of acres of wheatland all over that part of the state of Oregon. That gives the geese a definite local habitation which is all the better for the gunners.

In the town where gamblers and rioting cowboys were wont to foregather in time ago, there now collects a more sober and circumspect aggregation of goose shooters, which in the minds of some people are no less "crazy" than their predecessors. "What does anybody want to shoot geese for, anyhow? I don't see no fun going out and settin' in a hole in the ground all day and freezin' to death," said one old woman to me. "I do wish my boy could get enough of it for onct."

With comfortable quarters in the little town, the nights are spent around the usual gathering places where yarn spinning is the order of the day and the "old timers" hold forth. Retiring to bed in a regular house, the tourist shooter can have choice in the morning of shooting on the bluffs of the river, or taking an auto to Shutler Flats. The shooting at Shutler Flats is over decoys and in no essential way different from shooting on the grain fields anywhere, except the



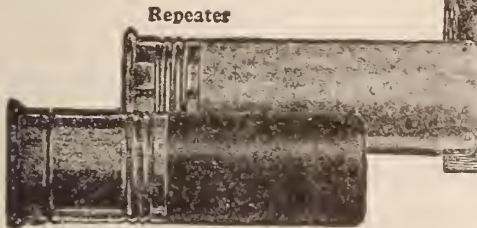
▲ full-fledged Christmas dinner.



The hard-hitting Winchester pattern is evenly distributed. No game gets through, and no game is mutilated.



A patchy pattern often means a miss, many times a cripple, and sometimes badly mutilated game.



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Leader

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THE steady game-getting qualities of Winchester Loaded Shells have made them the favorite shells of experienced shooters.

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The secret of the famous Winchester game-getting, even spread shot pattern is in the control of the gas blast from the exploding powder. This in turn depends upon the wadding in the shell.

The Winchester gas control system

The Winchester system of wadding and loading is the result of repeated experiments to determine the most effective control of the gas blast.

The base wads of Winchester Shells are constructed to give what is known as progressive combustion to the powder charge. The ignition spreads to the sides, in all directions, as well as forward.

Under the heat and pressure of this rapid combustion, the tough, springy driving wad expands and fills the bore snugly, completely sealing in the gas behind. In being driven through the bore this wad offers just enough resistance to the gas blast to insure complete combustion of every grain of powder, so that the full energy of the whole powder charge is developed at the muzzle. Thus none of the shot charge leaves the gun until it is being driven by the maximum energy and velocity possible from the load.

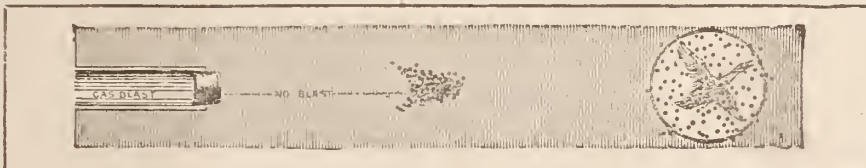
At the muzzle, the expanded, snug fitting driving wad is slightly checked by the muzzle choke or constriction, while the shot cluster and travels on unbroken by gas blast or wadding, making the hard-hitting uniform pattern for which Winchester Shells are world famous.

Uniform shells. From primer to crimp, Winchester Shells are so balanced in construction as to insure the maximum pattern possible from any load. The broad fish-tail flash from primer gives even and thorough ignition; the driving wads completely seal in the gas behind the shot; the stiffness of the crimp or turnover at the shell head is varied exactly according to different loads, great care being taken never to stiffen it to such a degree that it offers undue resistance to the powder explosion.

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Flats have a rather widespread local reputation of being A1 shooting at all times. If the weather is bright and clear, and there is no fog, the shooting on the bluffs is liable to be poor. But foggy days are numerous, and then the bombardment along the bluffs reminds one of defending a mountain pass from invasion. Besides being a specialty, it is different from any goose shooting I ever saw or experienced.

USUALLY one associates goose shooting in his mind with sandbars, and reedy water, and decoys set in stubble; with wide sheets of water or spreading fields. Here it reminds me of nothing so much as shooting wild goats on Catalina Island. A peculiar combination of natural causes go to make up this effect.

The bluffs are high and steep, and the lava rock mostly black, giving a stern, forbidding appearance to the landscape; great dense gray fogs come off the river and roll up over the bluffs, so dense that it would seem one could reach out and get handfuls of them. The ground is intensely dry under foot, unless there is a snow, for there is very little rain in that country. If the fog is thin enough so the river can be seen from the top of the bluff it looks like a pale silver ribbon at the bottom of a black gorge. At one's feet nestles the quiet little town with smoke curling from its chimneys, the milk wagon on its morning route, and a switch-engine lazily shunting box-cars over in the railroad yards on the river front. There is nothing that by the remotest stretch of the imagination resembles cattails, or a marsh, (not even along the river) or a wide-spreading wheatfield. (For the ground is too rough and stony for wheatfields right at Arlington.) As I said before, it is more like Catalina goat hunting. It is as if one went goose hunting on the River Styx according to the rendering of Doré.

ASSUMING there is one of those dense fogs (the kind you can cut with a knife) and that you are sitting on a ledge with a sort of blind of boulders, and you can see around you for some twenty yards but in your mind's eye the whole terrain lies in perspective as it does on clear days. Suddenly, from down in the river, comes a bewildering pipe-organ chorus of ahunks as a bunch of geese rise, circling like airplanes to get high enough to clear the bluffs, and set off for the wheatfields.

You grip the old gun and crouch down. (For you are a goose hunter by instinct, and instinct says "crouch.") But you had just as well stand up on the top of a boulder. On this particular morning they will be almost close enough for you to feel the wind from their wings before you can see them or they can see you. You can count pretty well on them clearing the bluff with little space to spare. You might knock one down with your gun barrel if you were a good acrobat. But—you are an ordinary goose hunter; somewhat subject to buck ague; a little nervous to say the least; so you grip the

stock of the old gun almost hard enough to make the prints of your fingers in it, hold your breath, tell you heart to go back down your throat where it belongs, and wait.

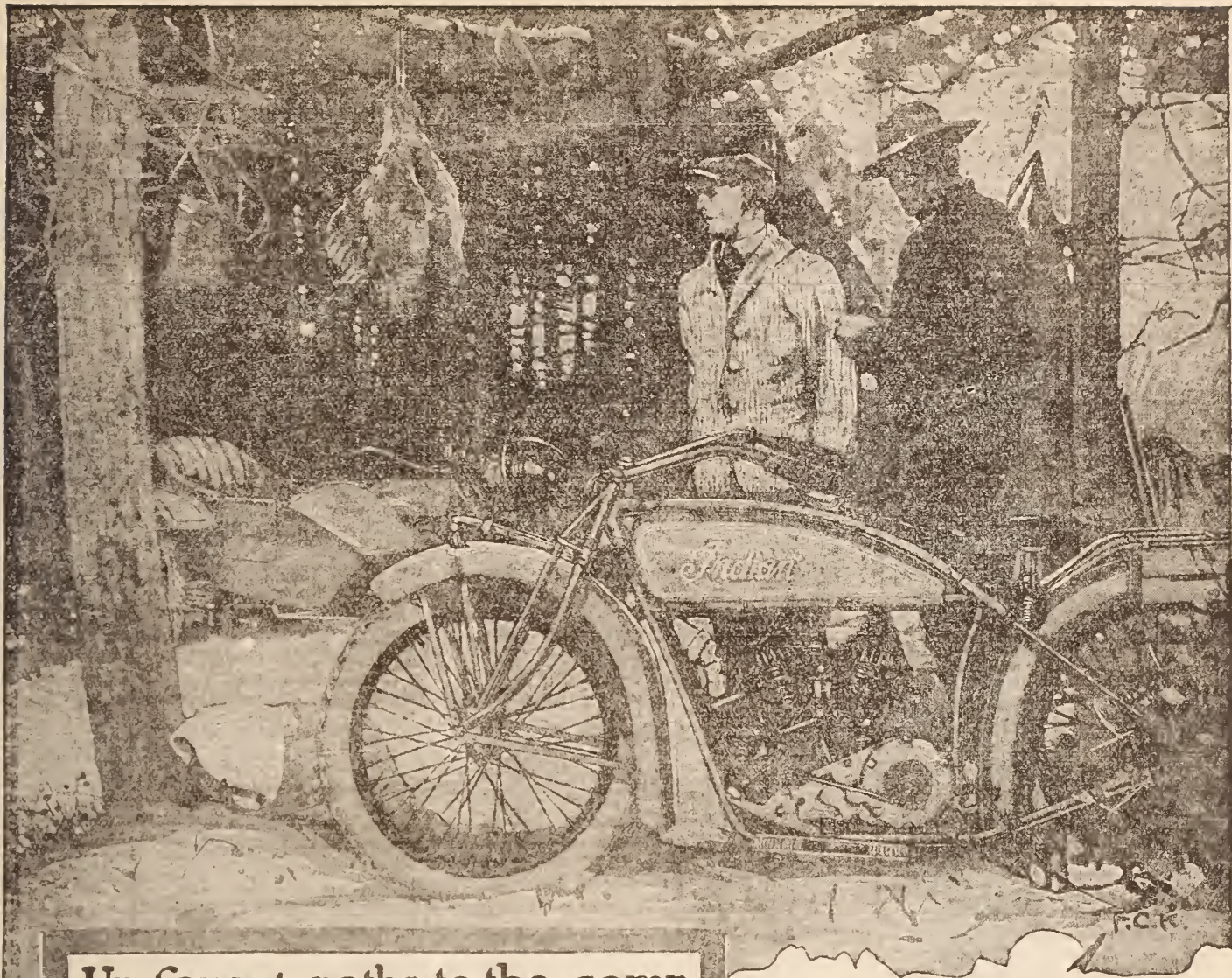
Another flock leaves the river and starts spiralling upward, mingling their ahunks with those of the first bunch, and then still others rise—all ahunking at the top of their voices, answering and re-answering and the echoes clamoring back and mingling in with the real voices in and grand brass-band of ahunks.

Your attention is jerked back to business by the sound of wings in the fog and a new burst of honking about fifteen yards over your head. They have seen you and are scattering temporarily in fright. Yes, there they are! All around your head like bumble-bees. You cut loose and empty the old gun at the flock of barns so close to you, forgetting how small is the pattern of your gun at such close range. Result: One or two geese come down. One falls with a thud and lies dead against a black lava rock near you. Another flops off down the hill. You can hear him in the fog hut you cannot see him. You start to chase him down and retrieve him, but another brass-band chorus of ahunks drawing near makes you go helter skelter back to your station.

Perhaps these pass to one side of you and the other fellows who have been waiting turn loose a bombardment. So it goes until the morning flight is over. The evening is more apt to be clear so the shooting from the bluffs is done mainly in the mornings. On clear days all the geese seek a canyon to fly out, keep well over the middle of it, and high up. At least it would seem they do. These geese at Arlington have become "educated," and they can tell how far a shotgun can kill about as accurately as a man can, and then they allow themselves 100 to 200 per cent. for margin.

ON such days the rifle is the only solution to the problem of shooting from the bluffs. (A man who wants geese goes to Shutler Flats on clear days.) The rifle isn't a very effective solution for the reason of the average man's lack of ability to make hits. Also, most of the rifles are rim-fire 22s. I have long dreamed of a rifle for geese, both on the wing and sitting and I mean to have one for a tryout, at least, as soon as I see time ahead when I can have sufficient leisure to make the investment worth while. This is it: A 25 auto, with a wide-field telescope attached. About 3x. Rifle sling, and loading tools. I may use an 87 grain bullet to get more velocity. The theory being that it is more fun to get them when they are hard to get. Also, that such a gun may often make the difference between a goose for supper and no goose at all. I am giving you the idea for what it is worth.

But if the weather forecasts are for fair weather, and fogs have been infrequent for a while, the gunner at Arlington will do well to take an auto and go to Shutler Flats where the shooting is of the typical goose hunting pit and decoy kind.



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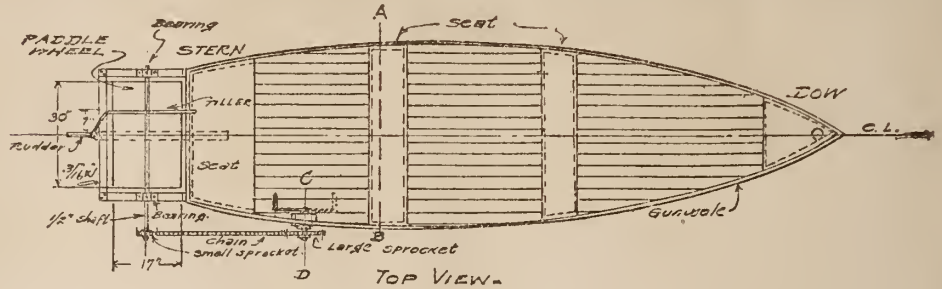
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A HAND POWER ROW BOAT

(Continued from page 661)

which is 1/4" diameter and has a 1" long hook with 1/8" cotter pin hole drilled as near the end as safe (about 1/4"). Make another for top rudder hinge and likewise attach. Use washer and heavy cotter pins. Then run a 3/8" or 1/2" round

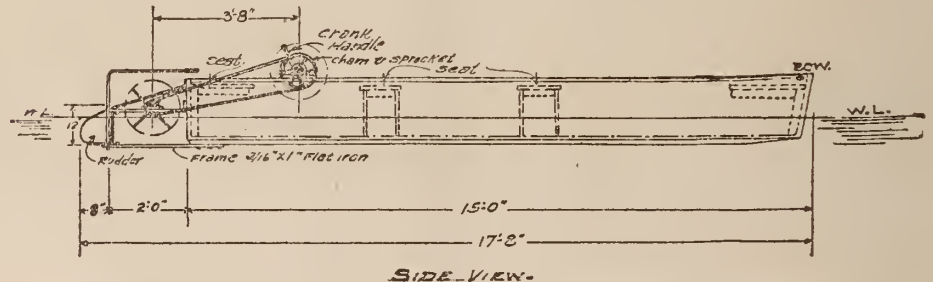
The rod projects at ends and fits into a clamp of 3/16" x 1" iron bent one-half round in shape of shaft hanger; 2 rivet holes on each side and 1 oil hole top center. Provide a large brass washer at each end on inside to prevent side thrust as



iron rod up the side and bent over the seat to make a tiller. Flatten this round iron at its conjunction with rudder plate and drill holes 3/16" diameter through both and rivet together. Bend the rod so it will clear the seat and body while in use as the tiller. A wooden handle may

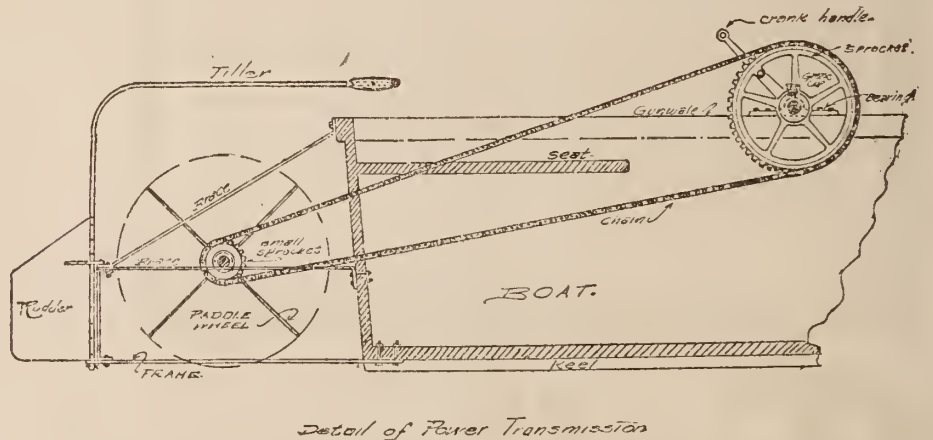
any great amount of this will tend to throw the chain off.

Procure a bicycle rear and front sprocket, crank and pedal and chain. Use one or more chains until right length is found. The driving crank hanger on fore end has elongated holes so it may be



be glued on, or the end wound with wire tape. The easiest way to get the right bend of the rod is to use a long piece of light wire and hold it up alongside rudder (after rudder is in position on frame) and bend it this way and that way until the correct bends are all in. Then follow this as a pattern to make it from.

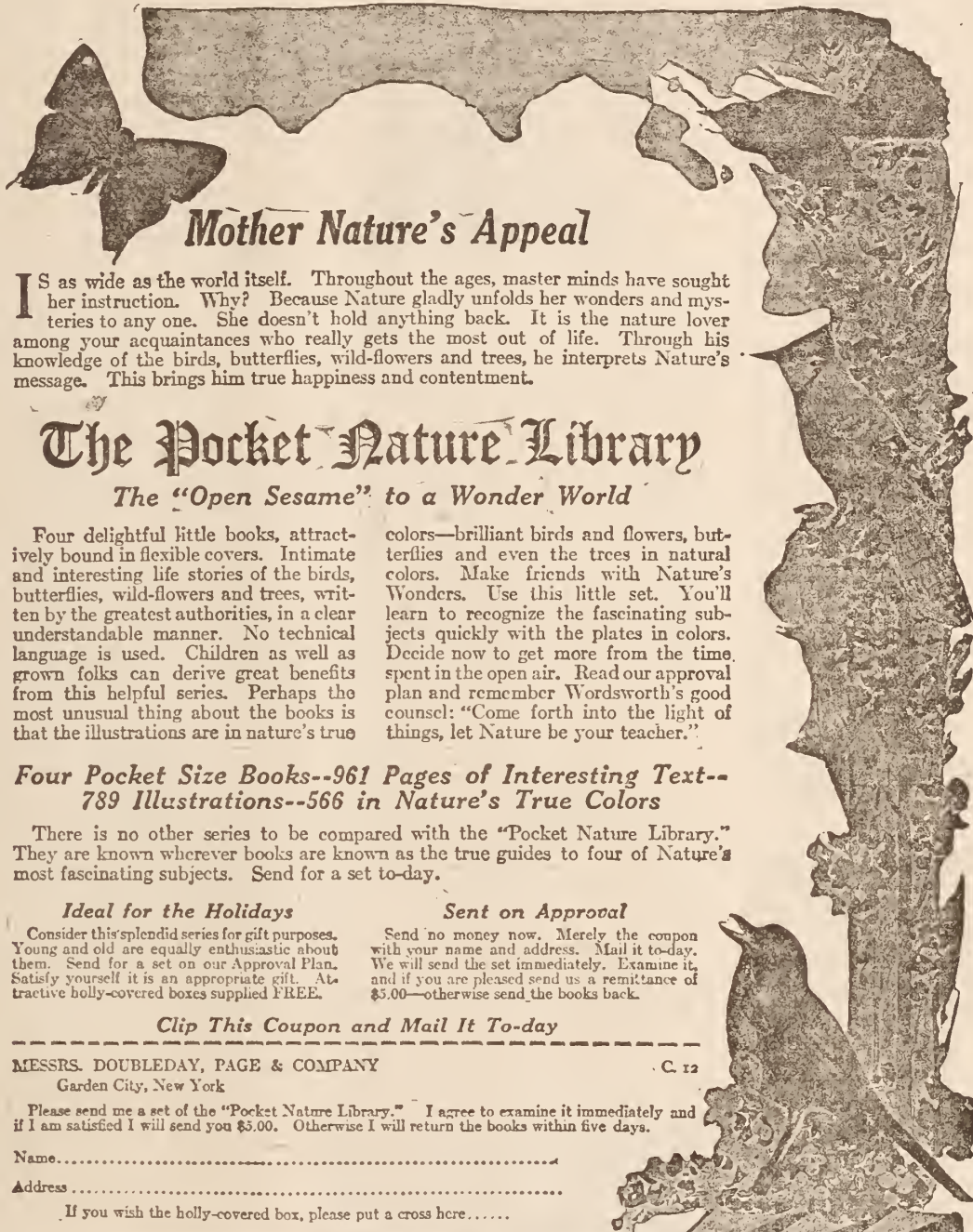
moved up or back, thus increasing or decreasing the tension on the chain, which should be a little tighter than that of a bicycle. Attach the rear sprocket to 3/4" rod by filling out with piece of pipe riveted to rod, after which thread the piece over and provide two lock nuts, one for each side of sprocket. Cut out for key



NEXT make the paddle wheel by using a round iron rod 1/4" diameter and 4 pieces of heavy galvanized sheet iron; holes 3/16" drilled every 4" at bottom and riveted to the 4 cross strips which in turn are riveted to the iron rod.

in sprocket which holds it and gives it the power to pull. Have the threaded piece long enough so that the sprockets can be accurately aligned and centered.

This will give you plenty of power and allow ample room for its manipulation.



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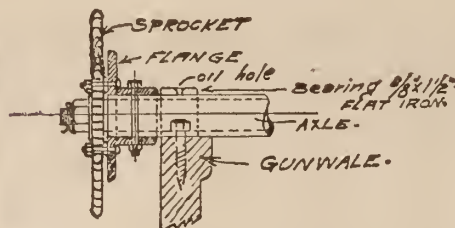
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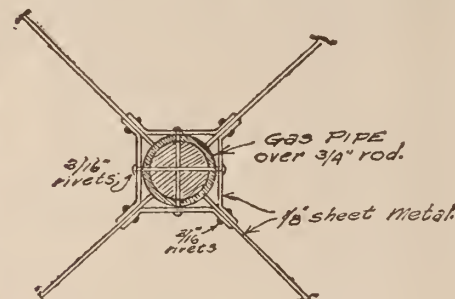
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SET the forward sprocket in place by using a bearing made of 1/4" x 1 1/2" flat iron bent down on inside of boat and screwed fast thereto. Then make a smaller clamp bearing, with adjustment for chain tightening, made by



CROSS SECTION C-D DRIVING SPROCKET.

slotting the holes 1 1/4" long. The "crank hanger" should be what is known in "bike talk" as a one-piece hanger. Remove all parts except crank and sprocket and hack-saw off the outside pedal crank (the one near sprocket). Provide a wooden handle or cut away the frame of the bicycle pedal and wind the remainder with tire tape. This makes a ball-bearing handle and work fine. Make the clamp bracket, which holds the sprocket crank axle in place very nice in its fit with 2 oil holes. Give the entire apparatus 2 coats of red iron enamel and touch up the rivet and bolt heads with aluminum paint and it makes a very neat and mechanical-looking job. Put a pair of foot-rests in front



Detail showing axle of Paddle Wheel.

of operator in a convenient position as this helps a lot when any speed or hard pulling is needed.

To locate the front driving sprocket center, sit naturally in position and stretching right arm forward find the desired points.

The total cost should not exceed \$10.00 as nearly all the material can be bought second hand and is just as good as new.

The Rifles of Our Forefathers

(Continued from page 646)

going off. Three-in-one oil, it may be mentioned, cannot be used in oiling a flint lock rifle. The old-timers used deer fat, but the other ingredients in the moderu oil soak into the steel in the priming pan cover, so that they ruin the flint and it has to be ground down again before it will strike sparks.

All these rifles, it should be mentioned, without exception have both set and hair triggers, it being the favorite with our

old riflemen who did not have ammunition enough to study trigger release and had to make their one shot count. Another rifle of Simon's that will bear mention is a Johnson of 1865, .38 cal. very light, about 8 lbs., and with short, 27 1/2 inch barrel when long barrels were the usual thing. This rifle had the rear sight set 15" from the eye, in spite of its short barrel, and this rear sight was a pet of Johnson's, a plain semi-circle, about 3/16 diameter, in which you centered the front sight by eye. The sides of the rear sight were horn, much like buckhorn of today.

As I said before, it was an unusual piece of good fortune to be able to really load and shoot the old Kentucky and Pennsylvania rifles of our pioneer forefathers. M. Simon has preserved for us all the methods and accoutrements used by them, and it is a privilege to set down here in print the actual experiences we had with them. For they are now but a memory, to even the oldest of us, and little was written at the time about how these rifles were used, by the men who used them. We have fables, in plenty, of remarkable shots made at unheard-of ranges, but it is safe to say that beyond a hundred yards these old timers made variable groups; but also, inside of that range, they made exceedingly accurate ones, with a very flat trajectory. Where, at a hundred yards, a modern .44 will merely flatten its bullet against a rock, the Kentucky rifle shot so hard as to split it to powder, and game, shot with its big .43 cal. ball, went dead and stayed dead at the first shot.

Trapping in Southern Pennsylvania

(Continued from page 643)

seen; the former about two inches ahead of the latter. The tracks of the right and left feet will be 2 1/2 to 3 1/4 inches apart with the mark of the tail between them.

Along the stream where the banks are steep one will see places leading up from the water to the top which have a used appearance and where the ground, roots and grass are worn. These are their slides. It is hard for a muskrat to walk down a steep embankment.

He prefers to slide. He therefore starts at the top and toboggans, so to speak.

At other places one will see where they have gone up the bank to eat roots. Often times no tracks can be seen but a general used appearance tells the tale.

Under the surface of the stream one will sometimes find holes in the bank. Often these are under roots of trees and difficult to find. Back from the stream you will often find where the surface of their burrows have caved in.

Sometimes one will find well-defined trails leading from the stream back to a field where they go in search of food.

On partially submerged logs and rocks will be seen their black oblong droppings, three or four in number and about the size of a navy bean.

Muskrats will often travel long distances in search of food. While doing so they will swim along the bank and ob-

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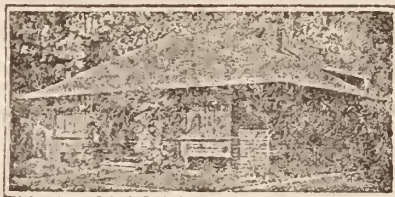
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serve everything as they go. They have good eyesight and power of scent.

When caught in traps they will invariably attempt to amputate the member that holds them or will try to twist out.

THE most successful methods for trapping muskrats usually get them by a front foot or leg. As these are delicate, the jaws of the trap will often break them. In that case, if the animal is not guided into deep water, and held there by some drowning device, as will be explained later, he will pretty surely gnaw off, from the under side, that part of the leg which is in the trap and with a few struggles free himself.

All animals which free themselves through amputation usually do so in this manner, because that part of the leg which is in the trap becomes numb. However, an animal will not gnaw off unless the bone is broken.

But as stated before muskrats will often twist off their feet and thus free themselves. I am a great believer in traps which take a high grip on the leg. This is particularly necessary in the case of this animal when caught by a front leg.

The ankle and claw of this member is so delicate, the flesh so tender, and the skin works so freely over the bone, it will often, if caught by a low grip, in shallow water or on the bank, twist and tare loose, leaving its foot in the trap.

The first impulse a muskrat has when caught is to make for deep water. Taking advantage of this trait the trapper endeavors to use some sort of a drowning device. A common method is to stake the chain in deep water. The weight of the trap will be sufficient to drown it. If the chain is too short an extension chain or wire should be used. It may be fastened to a stone and the latter thrown into deep water.

Another method is the sliding pole. This common device consists of a pole

over which the ring is slipped, the smaller end being run into the bottom of the stream or into deep water and the larger secured to the bank.

A couple of short pieces of branch are left at the small end so as to prevent the ring slipping off. A few twigs should also be left on the pole to prevent any possibility of the ring being pulled up again by the animal.

But a sliding pole is conspicuous. I strongly recommend the following method in its place.

Slip the chain ring over a wire (old baling wire answers the purpose splendidly), and anchor in deep water by means of a stone or weight of any kind.

Fasten the other end to a small stake in the water close to the bank, or to a stone. Submerge everything.

Now conceal trap and chain with a light covering to conform to the bottom of the stream and you have a set that will cause no suspicion to an animal and will not be discernable from the bank.

The wire should be twisted in a couple of places so as to permit ring to slide only downward.

Number 1 traps are generally used for muskrat. They are heavy enough to hold the animal under water and usually have a sufficiently strong grip.

Where you can use drowning devices the cheaper grades answer as well as the more expensive.

Number ones won't break the bones as often as a larger trap would and are cheaper—an advantage in these settled districts where you are likely to lose some through theft.

It is most advisable, however, for you to have a sufficient number of webbed-jawed, double-jawed, or gnaw and twist proof

(Continued on page 638)



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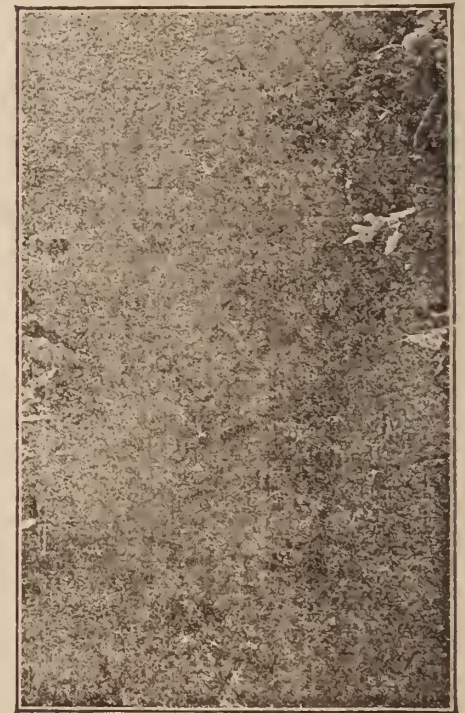
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(Continued from page 653)



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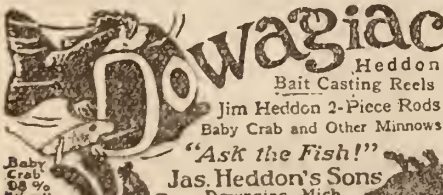
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of it before. The gentlemen were soon joined by the conductor of the train who also proved to be a great admirer of the fish in question. I learned from their conversation that a few months previously two or three dozen black bass, of small size, had been taken from a tributary of the Ohio river, near Wheeling, placed in a perforated tin bucket, and then immersed in the water of the tank of the locomotive, and in this manner carried to Cumberland, Maryland, where they were plauted in the canal basin at that place, from which they would have free egress to a branch of the Potomac river.* My curiosity was aroused in respect to the matter, and I resolved to make the acquaintance of the fish at the earliest opportunity, as I was assured by the conductor that it was common in the upper Ohio river, and abundant in all the tributaries.

When I arrived in Cincinnati medical lectures were about to begin and I matriculated at once. I had been reading anatomy and physiology for two years and my preceptor, a prominent surgeon, advised me to continue to devote myself, principally, to those studies, with the addition of pathology and the principles of medicine. He said further, that so far as the lectures on theory and practice of medicine were concerned, that I would better honor them more in the breach than in the observance for a year or two, and to apply the time to therapeutics and the laboratory, inasmuch as with the fundamentals firmly established in my mind I would be fully prepared to form my diagnosis and to define my own practice, and not be dependent on the opinions of others whether embodied in books or not. In after years I found this advice to be sound and trustworthy, and it would be well for medical students to put the same advice in their hats, and not begin, as many are inclined to do, by reading books of practice, neglecting to some extent the more important and essential basic studies.

I might clinch this advice by referring to an incident that occurred one day during a lecture on physiology. The subject of the glandular system was under consideration, and the professor was quizzing the class on the lecture of the day before. Adverting to the spleen, which has no visible duct or outlet, and the functions of which is not well understood even at the present day, he addressed a student who had given more attention to lectures on practice, as follows:

"Mr. Smith, where does the duct of the spleen empty?"

Mr. Smith, evidently puzzled, replied: "The duct of the spleen empties—ah—ah—ahem, why, why the duct of the

*Previous to that time the small-mouthed black-bass did not inhabit the Potomac river, but from that small plant the upper Potomac and its tributaries became well-stocked with this desirable game fish, and in a few years thereafter furnished excellent fishing, which continues to the present day.

spleen empties, why, why, Professor, I did know, but for the moment I have forgotten."

Then the Professor addressing the class, said solemnly and impressively:

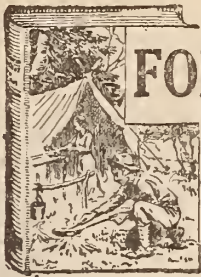
"Gentlemen, it is very much to be regretted that the only man who ever knew has forgotten!"

Owing to my knowledge of anatomy I was appointed demonstrator to one of the small classes in the dissecting room. Our first "subject" was a tall, stalwart Irishman whom we dubbed the Irish Apollo owing to his almost perfect form and fine physique; evidently he died suddenly as he was not at all emaciated. His teeth were remarkable for their whiteness and regularity, and closed like a lid of a tight-fitting box; but their most peculiar feature was a perfectly round hole, one-half being between two molars of the lower jaw, and the other half between the two corresponding molars of the upper jaw. There was some speculation as to the cause or use of the small opening. I happened to observe that the inner surface of each tooth was as black as ebony, and defined the cause; he was an inveterate smoker, which accounted for the discoloration; I had seen the same thing among some of my old sailor friends. I promised to explain the meaning of the dental hole at the next session.

When the class assembled on the following evening I took from my pocket a short-stemmed clay pipe and inserted the stem into the hole in the teeth which it fitted exactly; the mystery was explained. The poor fellow, without doubt, was a slave to the pipe, and held it between his teeth constantly except when eating or sleeping. Later, when we came to dissect his heart, we found certain and conclusive evidences of extensive organic diseases, and his death, as surmised, was very sudden, and the cause, no doubt, was said to be heart failure, whatever that may mean.

MY interest respecting the black bass had not relaxed, and with that matter in view, and in my off hours, I looked up a former friend whom I knew to be fond of fishing. He confirmed the enthusiastic opinions I had heard concerning the gameness of that fish, and of its abundance in neighboring streams. He also expressed his willingness to assist me by giving a practical demonstration at the waterside of the valor, bravery and general good qualities of the fish in question, which I knew only by hearsay. It was to be my novitiate, or first experience, and luckily it was to happen on Independence Day.

My companion showed me the tackle he used to conquer the famous warrior. It consisted of a long pliable natural cane reed, a single-action reel, a sea-grass line of small caliber and a cork float; the hooks, as I now remember them, were Kirby-bend Limerick about size number three. This comprised the outfit in gen-



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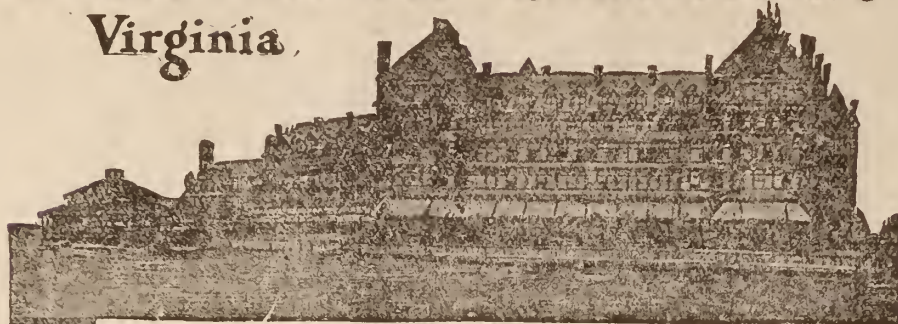
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eral use at that time for black bass fishing. When I exhibited, with some pride, my home-made eight-foot cedar rod and click reel, he expressed his admiration for the little rod, but doubted its capability to manage and overcome so game a foe as the black bass if of fighting size. But I felt no apprehension on that score as it was the victor in many a hard-fought struggle with the striped bass and bluefish of the Patapsco.

On the Fourth of July, 1855, we took the train for the little town of Morrow, on the Little Miami river, some thirty miles from Cincinnati. My companion carried a small minnow bucket and a six-foot minnow seine as part of his fishing equipment, and we both carried rubber boots. Proceeding up the bank of the stream we soon came to a tributary brook where we captured a supply of lively minnows with the little seine. I resolved to watch my friend awhile before wetting my own line, in order to gain some knowledge of a method of fishing of which I was totally ignorant.

Adjusting his float to the proper depth, he carefully hooked a minnow just under the dorsal fin and tossed it into a deep eddy near some rocks. After waiting a few minutes, and meeting with no response, he cast the minnow into a ripple near a patch of driftwood. The bait had scarcely time to sink ere it was seized and the float disappeared from view as the line went racing through the water, cutting erratic angles and curves in a way I had never seen before, while the rod bent and swayed with the strain, when—Ye Gods and little fishes—out leaped a wriggling form of a greenish-bronze with wide open mouth, red and cavernous, that seemed to hurl a defiant challenge as with a graceful curve it disappeared beneath the surface.

"You've lost him," I cried.

"Oh, no," he rejoined, "not yet!"

And then amid a shower of water the brave fish bounded out again, and yet again, with scarcely a moment between. My eyes seemed bulging out of my head as I tried to follow him in his eccentric courses as the line went hissing through the water, now here, now there, with an audible swish as he rushed toward the rocks, then toward a patch of weeds; but foiled by the spring of the rod he again leaped out, but scarcely above the surface, and with a last defiant wave of his powerful tail, he disappeared below. Finally he lowered his crest and turned up his armored side to the summer sun in sheer desperation, and as he was being slowly reeled in he seemed to exhibit his defiance and to protest against his undue defeat by slapping his broad tail on the shimmering surface.

When the hook was removed from his lip, and a sharp knife was thrust through the spinal cord just back of his head, he lay still and quiet "like a warrior taking his rest." While gazing on the limp, lifeless and tranquil form it was hard to realize that, but a few moments before,

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there was pent up within it so much vim, vigor, valor and vitality, and so much resourceful power and nervous energy. It was my first view of a black bass. His capture was a revelation. My curiosity was appeased but not satisfied. More was to follow. It was but the spur, the incentive to future endeavor and performance.

So far I had only an impersonal conception of the finesse and strategy of a fish that seemed to possess unlimited power, resistance, fortitude and endurance. I was yet to experience a personal encounter in which my skill, with the help of rod and reel, would be tested and exerted against his innate and indomitable bravery, courage and adroitness.

A Manual of Wildfowl Shooting

(Continued from Page 651)

along the Atlantic, Pacific and Gulf Coasts and in sections of the interior.

The red-head usually arrives from the South in March and many of them formerly bred within the boundaries of our Northern tier of States. But the shooting in the spring resulted in practically all of our ducks going far into Canada to nest. Spring shooting has now been abolished and with that wasteful and unsportsmanlike practice at an end the red-heads, along with many other species of ducks, will no doubt breed again within our borders in better numbers.

The red-heads start south with the freezing over of the northern waters, but they usually arrive in our middle states later than some of the other species.

The shooting of red-heads is similar to that of canvas-backs. They are hunted in the same manner, come to the same decoys and present about the same marks.

ONE fall, late in the hunting season, a report came into town that there was a flight of red-heads on in the upper bay. The duck shooting had been good that fall, but the red-heads had been a scarce variety, in fact they had been so during the last few years. Now the birds were reported plentiful on the river and in the locality where the river emptied into the bay.

A "dry" north-caster had beat and howled along the shore for two days as if furious because it could not let down a deluge of rain with the gale of the wind. Then the storm partly subsided, followed by a cold snap of real winter weather. This storm was reported to be the cause of the sudden flight of red-heads.

Hardly had we received news of the red-heads than my friends and I were preparing for the trip. About two o'clock in the morning we packed guns, shells, sandwiches and thermos bottles filled with hot coffee into the automobile, and climbing in, were off in the black behind the glare of the head lights. It was very cold and a keen wind was blowing. The heavy sweaters and overcoats and caps

with the flaps fastened down over the ears felt none too warm.

In less than an hour we reached the head of the bay. The car was left at the side of the road and we tramped over to the bay shore where lay our sneak-boxes with their loads of decoys. Taking only the red-head decoys we each pushed out in a boat. The night was intensely black and we lay our course solely by knowledge of the locality—when one instinctively travels right by night as well as by day.

The splash of our oars and creaking of oar locks were lost in the moaning of the cold damp wind that drove the waves slapping and spraying against the sterns of our boats. We almost ran into a flock of ducks that were resting upon the open water. The startled fowl would leave the water with splashing of many wings and feet. They would beat into the wind toward us until directly over our boats, then swing to the right and left, the whistle of their wings suddenly hushed as they speeded off. At times there were many ducks about our boats, all effectually hidden by the blackness of the night.

An hour or more of steady pulling at the oars and we had crossed the bay to the western shore and were abreast of the river's mouth, a mile or so to the south of our starting point. At first we missed the little island, the place from which we intended to shoot, but soon we ran into the tall reeds that lined the marshy shore.

The island was only a few square yards in area but it was important to know on which side or end to make our blind and put out the decoys. A consultation was held. The wind was considered. It was blowing strongly and steadily from the north-east and it was hardly likely to change during the coming day. A decision was reached, based on past experience in that locality under similar weather conditions.

We poled down to the south-east point of the island and throw out the decoys just a little off to the south of the end rushes. Then, while my companion worked the sneak-boxes well in among the tall reeds and settled them side by side, sterns toward the water, I got out the jack knife and groping my way about in the darkness cut armfuls of brown rushes. These were carefully spread over the decks of the boats and draped over the square sterns.

We got out our pipes and had a smoke, and for all our bundling up the raw, cold winds made us shiver as we stood there watching the east for signs of the coming day.

A change, almost imperceptible at first, was gradually taking place. Where a half hour before night had enveloped us, black and impenetrable, a dim gray was now mysteriously spreading through the jet. Slowly but steadily the gray increased, until the waving brown rushes nearby were outlined and the little island seemed to rise phantom-like to view. The nearest decoys showed faintly, hobbling among the waves, and a gray sky was dimly disclosed over head. Far to the



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east and lower over the dark sea a stronger gray was spreading in long streaks. With the coming of the day we settled ourselves in the sneak-boxes and slipped the loads of Number 5's in the guns.

AS the light increased the wild expanse of bay and marshland was disclosed. Rough, gray water, islands of brown rushes swayed and bent before the stronger gusts of wind; heavy gray clouds milling in a leaden sky. Far to the east lay the long, narrow stretch of beach with undulating sand dunes, a barrier between bay and sea. To the west the thick dark woods backed the marshes, and parted at the river, the turbulent waters of which narrowed into the distance between the swaying pine trees.

Flocks of ducks could be seen battling their way into the face of the strong wind or scudding before it at a tremendous speed.

Suddenly two ducks, seemingly from nowhere, pitched into the water among the outside decoys. For a moment they sat there still, and in the wan half-light they were hardly distinguishable from the wooden counterfeits. Suddenly they jumped and swung off down the wind. We both fired and one of them splashed into the water. The first duck of the day proved to be a handsome male red-head.

The reported flight of red-heads had been true. Our island lay in the bay opposite the mouth of the river and about a hundred yards from the mainland. The lately arrived ducks were trading up and down the river and out over the bay and we lay directly in their line of flight.

During the first few hours we enjoyed some excellent shooting. The ducks came rapidly, they were all red-heads with the exception of two or three flocks of scaup or broad-bills. Our decoys had been placed when it was yet night but past seasons on the bay had stood us in good stead and they were well put out. The new hand at the game will throw out his decoys before dawn and then nine times out of ten will find that with the coming of day-light the flock does not look in the least as he intended it to. The decoys may be much too far off shore or entirely too near. They may be grouped too closely or strung out in a straggling line far too long. In the latter case a duck coming to them would offer the poorest sort of a shot, if any. The beginner must first learn to put out his decoys properly by daylight. Later on with patience he will acquire the knack of putting them out by night when distances on the water are difficult to estimate and the surroundings seem strange and confusing.

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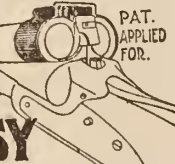
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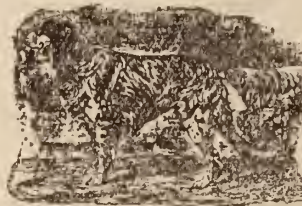
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seem possible to descend that precipitous mountain side in the half-light remaining. Yet there was nothing to do but try; so, in desperation, I started on the descent, and it was the most terrible experience of my life. Once started I could not stop. The undergrowth was too shallow-rooted to support me and several times I found myself sliding down pell-mell, as it seemed to death, clutching at every bush and projection of rock as I passed in that wild descent. My hands were soon terribly lacerated and I was constantly pelted by the stones I had dislodged in passing.

Almost unnerved; with bleeding hands and bruised body, I finally came to where it was less precipitous and then to where trees were growing. After that it was safe going but was fast getting too dark to see. I soon found three fir trees growing so close together that the space between afforded secure footing and some shelter. Here I spent the second night and it required the exercise of considerable will power to keep up the necessary exercise to prevent perishing from the cold rain that chilled me to the bone.

As soon as it was light enough to see, the weary tramp was again resumed and about 8 o'clock I came to the spot where I had killed the elk.

We had been nearly a month in the mountains and my shoes were in shreds, the last slide had finished them; when I reached the elk, I was practically bare-footed. I decided the elk should furnish me a pair of boots: I cut the hind hoofs off at the pastern joint, and cutting around the leg above the hock, or gambrel, peeled off two good boots, the hair inside; the curve of the gambrel making the heel; the hair enabled me to slip them on easily; the open end at the toe was drawn together and fastened back with a thong to prevent stubbing: I found I had as comfortable a boot as I had ever worn, for it soon adapted itself to the shape of my foot, and when it had become dry it retained its shape.

With a glance to see that the head-skin was undisturbed, I pushed on and late in the afternoon reached camp which I found deserted. They were in the hills hunting for me. I had ceased to be hungry and had only one sensation—that of exhaustion. Crawling into bed I drew the blankets about me and went to sleep. At supper the boys awoke me. I took some food and went to sleep again. At breakfast I was again aroused, took some nourishment and returned to bed, sleeping until noon. After a bath in the hot sulphur spring, and a good dinner, I felt as good as new, except for the bruises and lacerated hands, although I had lost seventeen pounds in weight.

The following morning, with Mr. D. C. Coyner, to help pack, we started back for the antlers, to secure which I had undergone so much exposure. The head was found undisturbed. After a hasty lunch we started for camp, Coyner carrying the horns and I the cape. They made a heavy load and the steep mountain sides being covered with pine-needles, making the

footing insecure, our progress was much slower than anticipated. We were overtaken by night and had to sleep out again, but the rain having ceased, we had no difficulty in getting a good fire started and took turns catching sleep. We got through the night without much discomfort. Camp was reached early next morning and the following day we started for home.

THESE elk-pastures have now been included in "The Olympic Forest Reserve," and the splendid hunting they afforded is now only a memory—except those who hunt with a kodak. The elk have multiplied and frequently range beyond the confines of the Reserve, a fact the settlers are quick to take advantage of. The Solduc Hot Springs is now a famous resort, boasting a fine hotel. The Solduc river still is full of trout and Lake Crescent is far-famed for its Bearley trout; they attain unusual size—ten and even twenty pounders not being uncommon.

Hotel accommodations are good, making life easy for the angler; the Olympic mountains equal the Alps in beauty; beautiful roads connect this scenic paradise with Seattle and Tacoma; numerous tents dot the shore of Lakes Crescent and Cushman, sheltering for a night, or an outing, fishing parties or autoists who prefer a taste of tent life to the comforts of the hotels. It is all very fine, but when I gaze at the elk-head nicely mounted, above my desk, my thoughts go back to those days, when the grassy parks of Mount Olympus were the elk-hunters' paradise, and I rejoice that I got a "record" head as a souvenir of my hunting prowess, before Uncle Sam said "Forbear." It also reminds me of the toughest experience of my life.

A Big Game Hunt in New Brunswick

(Continued from page 647)

while a big cow trotted swiftly away. The head was an unusually even twenty-pointer. After dressing the bull, we tipped him over and back until he rested well above the ground on small logs. Bob was doubly pleased, for the seven hundred pound animal was within fifty yards of an old logging road to which we cut a lane the next day.

I had been looking toward the bull, so that the first swing of his great neck enabled me to see plainly that his head had far more than the three points on each horn required by law, so that there was not the hesitation necessary on another trip with the guide, when owing to the dull light and thick growth, we could not for some time tell the sizes of the heads of three bulls in one herd. We saw three together on this trip also.

While we were seated on the bull, the day after he fell, a large hawk swooped almost up to us and then away with great speed. Coming out of a ridge one morning we saw a buck in the open. The

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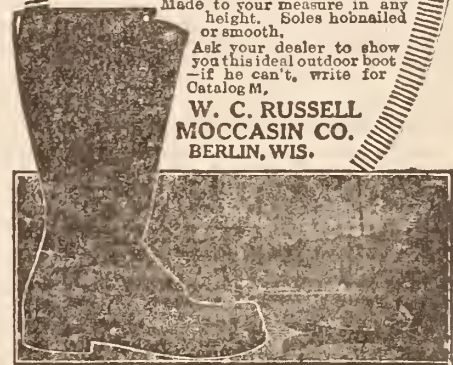
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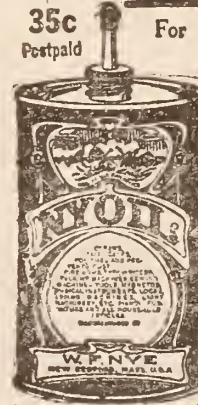
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second shot ended his career, while he was at the full height of a great leap. Then we descended a short distance into a fairy dell where amid the great green trees, a purling brook formed a series of tiny silvery falls, banked by remarkably thick masses of vivid red and green mosses.

Beside a fire we had a lunch of Graham, raisin biscuits, sardines, cheese and dessert of sweets, such as chocolate, coconut cakes, maccaroons, candied orange peel, cake, popcorn sticks and figs. The cake contained powdered eggs, which we found to be a good substitute for the ordinary kind, which composed one-half of our supply. The Graham flour keeps the bread soft longer in cold weather.

One afternoon we sneaked up to a big bull and heard plainly the noise made by his teeth in crunching the willow-tops. This sound can be heard a long distance as one may judge when the great size of the teeth is realized, one of which I possess is one and five-eighths inches in both length and width, three-quarters of an inch thick and weighs seven-eighths of an ounce.

I have been within nine paces of a feeding cow moose. I took a picture of the bull, but when I advanced to get a second snap away he went, bewildered by the guide's magic. The bull's movements were very erratic and his great bell swung from side to side like a towel. When I turned back, Bob had his face to the sky, laughing at the spectacle presented of the huge wild creature being driven like a barnyard inhabitant.

During fourteen trips to this section I have seen two hundred and twenty-nine moose, sixty-nine caribou, and one hundred and eighty-one deer, a total of four hundred and seventy-nine, an average of thirty-four. The small number of caribou seen is due to our selection of camps some distance from those nearest their favorite grounds. But moose and deer also abound in the latter section and a sportsman with a guide from a caribou camp shot two big bucks from a remarkable herd of six bucks and one doe. Moose and deer have increased in all of the guide's grounds, the former averaging ten seen by me each trip for the first five years and twenty for the next nine.

Only three deer were seen in my first five seasons here, followed by one hundred and seventy-eight in the next time, or an average of twenty. During one trip here, I shot a big moose, a thirty-three point caribou, and two deer, one of the last being very large as the forequarters and neck weighed one hundred and ten pounds, the hindquarters eighty-two and the head and hide thirty-four, or live weight of probably two hundred and seventy-five. The nose was abnormal in width. The other deer was a thirteen point red and white freak, with black and white tail and with numerous markings almost exactly duplicated.

IT amused me to test the guide's ability to recall the game seen, for he could reel off a remarkably long list of days, animals and localities with ease. Of the

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seventy-six partridges that we saw, a number flew from almost under our feet, startling us with the roar of their flight.

One day we heard something ahead, and Bob cried "run." While at full speed he called "left" and we swung out from among the trees onto a plain, where fifty yards away two great bulls were trotting broadside to us, until the guide caused them to stop. After loafing around, they walked slowly away, one of them later even coming two steps towards us. Thus about fourteen hundred pounds disappeared from a spot, close to a road and to which horses could have been brought without cutting even a bush. But I had already secured my bull, so Bob took my rifle and tried "dry" shooting on their sides as they stood, forming such unusual targets because of their great size and contrast to the sky beyond. One bull had a fair head and the other a good one.

Another day a similar performance was enacted. A bull stood in the road a half-mile from camp and when the guide tried his usual game another bull emerged from the trees and blanketed the first. They moved off slowly and as we passed along, we saw one standing among the trees, which was an unusual proceeding.

Two young men from Memphis, Tennessee, who had read a magazine account of one of my former trips here told the guide jokingly at first that I could not have witnessed as many as I described, but at the end of their trip, they said that they had seen about as many as I had. They saw a buck so fat that he could not run fast and were almost on top of a bull moose so big in body and horns that one of them while aiming lowered his rifle in astonishment more than once.

FOR an outside garment I wore a sweater made to order, with a great cape collar of double thickness, ten and one-half inches deep behind and twelve inches down the inverted V front opening. It afforded warmth and the heaviest rains could not wet the shoulders of the sweater beneath. Perhaps a separate collar of this kind or with no opening would make a great protection from sudden changes in the weather. In the coldest days I wore inside the sweater, a sleeveless addition extending to the lower rib and with a high close collar.

Five snowfalls, aggregating eighteen inches, opened many pages of the Book of Nature and enabled us to realize the activities of animals all about us that bare ground could not record. Nearly every morning we found a great number of fresh moose, deer, fox and wildcat tracks; many, that were mingled with our tracks, had been made after we had gone to camp in the darkness of the night before. We also saw tracks of beaver, mink, otter, marten and black cat or fisher. All but a few of the numerous bear were tucked away in their winter beds.

One day a moose had encircled our camp after following the road for over a mile that we had used that morning. From the great tracks, long spacing and the many times it returned to the road after short swings into the trees, as

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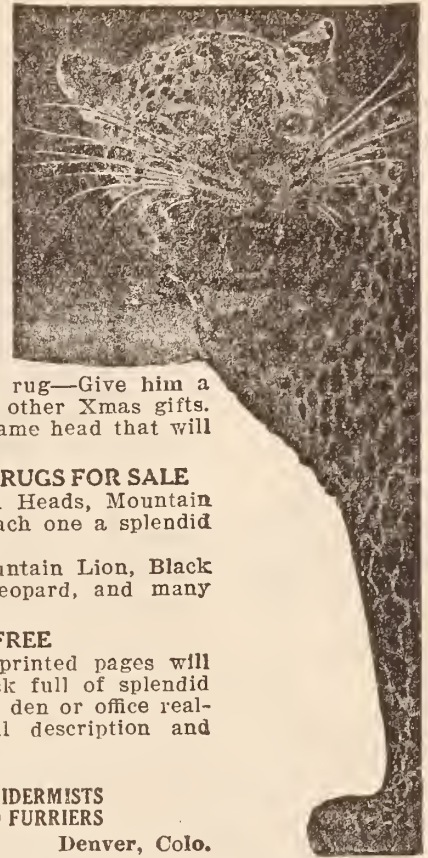
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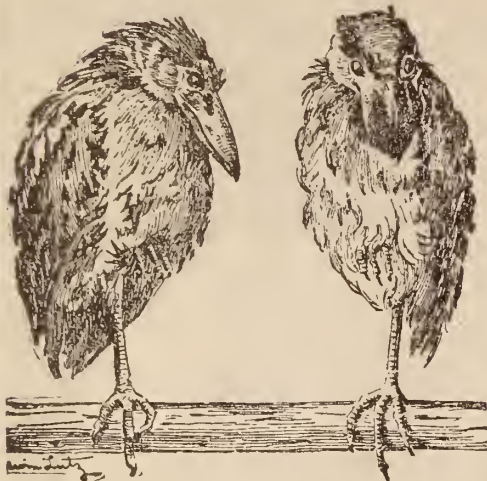
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Among other things, tells how to make an umbrella canoe and all kinds of kites and stilts, how to build the "get-there" sled and double runners, how to play tipcat, mumbly peg, hockey, Indian games and all kinds of ball games.

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Kephart, Horace.
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Tells of all types of tents and kinds of camp equipment, provisions and camp cookery, nearly half the book of 400 pages being devoted to that subject.

Brunner, Josef
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A remarkably successful child's science book. Information about ants, wasps, bees, etc., in the guise of a fairy tale. Usually authors who try to do this sort of thing fail miserably.

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Many short stories of common animals.

Comstock, A. B.
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May, C. M. (C.)
SO-FAT AND MEW-MEW. Heath. 25c
Adventures of a cat and a dog.

Miller, O. T.
FIRST BOOK OF BIRDS. Houghton. \$1.50
Simple accounts of bird life and habits.

LITTLE FOLKS IN FEATHERS AND FUR. Dutton. \$3.00
Nearly one hundred true stories of the smaller animals.

though making slow progress therein, we judged that it was a bull with a great spread.

We found wildcat tracks around the partly devoured carcass of our first porcupine which had been turned on its back by the cats in order to avoid the quills. It is a mystery why many dogs otherwise intelligent will repeatedly attack porcupines and fill jaws, tongues and gums full of quills in biting the back.

With pincers I once extracted nearly four hundred quills from one of a pack of twenty-three dogs in Colorado and while thus engaged another victim crept up and sheepishly rested his muzzle on my knee in mute appeal. If extraction is delayed about a half hour, many of the quills break off and the barbed tips move internally.

Despite the two dollar bounty, wildcats, which kill deer are increasing for they are harder to trap than lynx, which can be caught by almost any amateur.

Bob is an expert moose caller but it was too late in the season to afford opportunity to show his skill. Some guides call bulls from a distance, but fail to bring them closer when the latter become suspicious. Sometimes the guide has decided the problem of selecting the biggest bull from among two or more that were coming to the call at the same time. To get the big one without causing startled smaller bulls to frighten him away requires skill, quick thinking and versatility, for conditions are seldom alike.

On the day that we came out of the woods, the driver of the able team arose at four A.M., drove seven miles to camp and arrived back at Bob's house at seven P. M. Upon reaching his home, the driver did all the chores, as there was sickness in his family and thus completed an eighteen hour day, one-half of which was in darkness.

As the hunting season had closed, Bob's work as a guide was ended for the year, but in a short time he was back again in the great wilderness engaged in felling trees, instead of big game.

Trapping in Southern Pennsylvania

(Continued from page 674)

traps of the same size as your number ones for use where the water is too shallow to drown the animal.

The great advantage of these models is the fact that even if the animal should amputate his leg from below the trap still has a firm grip on what remains.

The last two models mentioned have the additional advantage of not being so likely to break the bones and they take a high grip on the leg.

In all three models that part of the leg that remains in the trap will swell and will make the grip that much surer.

A double-jawed trap can stand and should have a stronger spring than the corresponding sized single spring trap.

Unfortunately they do not always have Gals. Springs vary in strength in the

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same make and size of trap. When buying it is a good idea to test each trap and discard the weak ones.

It is certainly better to have too strong than too weak springs in all cases.

ALL trappers, even where they have used twigs and wool under the jaws, have experienced having their heavy sets (those made for the larger animals) sprung by small animals, such as weasels, rabbits, squirrels and also by birds. They have seen how the powerful jaws, although they would crush the bones to splinters, would hold the creature firmly against fiercest struggles by the ligament, tendon or skin that remained in the trap.

Where sets have to be made where the water is too shallow for drowning, place an additional trap off to one side about ten inches from the main set. In floundering around the animal will more than likely get one of his other legs caught.

As stated before, improved models of traps shall be used under such circumstances.

A common and one of the very best sets for muskrat is to place the trap at the foot of a slide. The trap should be placed two or three inches under water and concealed by a light covering to conform to surroundings and some drowning device used. If this is not feasible, the additional trap must be used.

Bait sets placed at convenient landing places and consisting of a submerged trap with bait above it on a pointed stick is the other method in common use. Personally I prefer blind sets to bait sets but will always try out the latter and keep doing so throughout the season.

If I use bait, I prefer to cut it into small pieces and scatter it on the bank opposite the trap. This answers as well, if not better, than the common method, and does not make the set so conspicuous.

Parsnips seem to give best results, probably due to their strong odor, but apples are very good. Carrots, turnips, corn, cabbage and various vegetables should be tried.

A little rivulet running into the stream make a fine place for a blind water set.

Place the trap up the rivulet a foot or two and arrange to drown the rat in the main stream.

A few old sticks stuck carelessly into the mud may be used to help guide the animal over the trap. Cover the trap and chain carefully. Nothing should show to cause suspicion.

Where tracks show that muskrats travel along the edge of the stream between the water and a bluff, place something on the bank so as to force the animal into the water in order to get around.

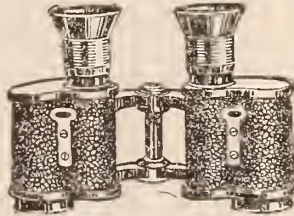
Place a trap in the water at this point and sticks (old ones) or a stone in the stream next to the trap as guides. Sometimes a natural location is found.

Partially submerged logs or rocks which offer a convenient landing, are used a great deal by these animals. Look for droppings on such places.

Place a trap on them under the water

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at the landing place, and if it's a log and the water is deep at this point fasten a chain to its side. If a rock, use some sort of drowning device, usually an extension chain anchored in deep water suits the case best. In the case of a log it is usually best to cut a seat in it for the trap to rest in.

If the water is too shallow for drowning use the two trap method, staking or fastening the chain of the main trap so as to compel the animal to go to that side of the log which has another trap.

A trap placed at the entrance to their burrows is a sure catch if used with drowning device.

At places where muskrats land on the bank, in order to eat the roots, place sets similar to those placed at foot of slides.

Musk scent should be tried with some of the sets.

It is done by placing a few drops upon a dry stick or leaf on the bank close to and above the set.


Animal scents are usually more effective in the spring than any other time. Muskrat scent can be obtained by removing the scent glands from the carcass of either male or female (I believe female musk is slightly the stronger) and putting in a bottle with a little alcohol.

The glands, two in number, are located on the lower part of the belly, one on each side. They are about one and a half inches long by three-eighths wide and are fatty in appearance. A novice would probably take them to be fat.

In the fall trapping, conditions are best and at that time most of the catch is made. In winter you have ice to contend with and in the spring the frequent changes of water level makes lots of additional work. However, these seasons offer two advantages. First, less competition as most amateurs quit trapping when winter sets in, second, a higher price for the pelts.

To sum up, trapping muskrats in a district like this I would say: Try all the aforesaid methods and any others you may hear of that seem to suit the conditions under which you are working and use those which give best results. But do not get into a rut. Changes are necessary as the season progresses. Sets

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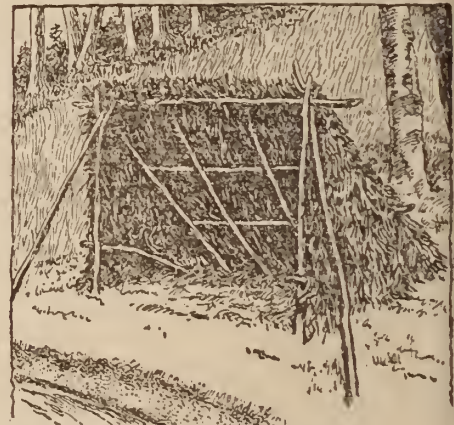
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At the end of a trap line

and baits which are successful in the fall will in many cases be of little use in the winter or spring. So keep experimenting.

The beginner will probably over-estimate the number of rats that are "working" from the signs he sees.

After trapping a certain section of the stream hard and when it is not payingly productive any more, move the traps to a totally different section, to another stream perhaps. A change of scene may bring a change of luck.

The main stream rats seem to have migrated this spring to the back creek. The back creek in this case is simply a branch of the main stream.

Let us emphasize the necessity of using care in placing and making your sets. It is a good plan to grease our muskrat traps. Tallow or any saltless grease that will protect them from rust will answer. It will prolong their life.

AMERICAN CANOE ASSOCIATION.

To the Editor of FOREST AND STREAM:

I desire to avail myself of the privileges of a member of the American Canoe Association, and formally object to, and make a point of order against the proposed amendment to the By-Laws of the American Canoe Association, as published in the November issue of FOREST AND STREAM, as an unconstitutional procedure.


Without questioning the power of the Executive Committee to amend the By-Laws in the manner prescribed therein, the proposal to levy an increase in dues on the present memberships in the Association, without the consent of the holders of such memberships, would sever the contractual relationship entered into, between the Association and the member, at the time such member joined, and constitutes in itself something more than mere amendment to the By-Laws.

The officers of the Association have failed to show that the Association affairs cannot be run on the present income, when properly administered, and the purposes of the use of the anticipated additional funds are not disclosed. From the circular letter addressed the A. C. A. members by a former Commodore, the assumption is that the additional funds are to constitute an anticipated benefit for those members who are able to attend Sugar Island Camps.

To levy an increase in dues on all the memberships in the Association, to create a fund to be used for the benefit of the 20% of the members who can avail themselves of the privileges at Sugar Island, places a burden on the remaining 80% of the members of the Association, of a nature devoid of participating benefits, and as such becomes an assessment on those members.

The project of levying the proposed increase in dues, is not therefore a constitutional function of the Executive Committee to decide, but must be decided by the members themselves by a unanimous vote of the Association.

ADRIAN SIZER, Washington, D. C.



*After the Trap is sprung—
it's up to the Gun
and your Eye*

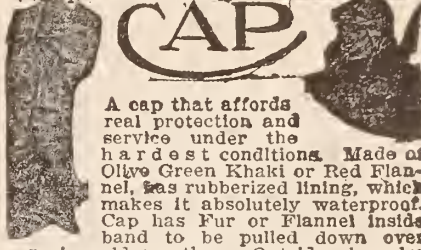
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A BOAR HUNT IN FRANCE

WHILE WAITING TO BE SHIPPED HOME TIME IS FOUND FOR SOME RARE DAYS OF SPORT

By WILLIAM D. LEETCH.

AFTER the armistice was signed, we were billeted in a little town named Chatonrupt, in the Haute Marne district in France. It is a beautiful country. The hills come right down to the east bank of the Marne; well wooded, and full of small game. I spent the majority of my time in tramping over the country in the vicinity, and was delighted with the scenery and the people, though the climate was not all it might have been. I flushed numerous flocks of quail, and there seemed to be a great many rabbits in the brush.

One afternoon Chris Dyne, a soldier, and myself were walking through the woods above the little town. It was a drizzly sort of day and raw cold. Everything was soaked and the numerous little paths through the brush were slippery with mud. We noticed hog tracks in the trail we were following, but thought nothing of them, supposing they belonged to some domestic pig which had broken out of its pasture. They were distinct and evidently quite fresh, so we decided to track him down if possible and return him to his owner.

The trail led out into a little pasture with a garden at one end, and there we saw where Mr. Hog had played havoc with some Frenchman's rutabagas. We were a long way from any farm house, and thought it strange that the pig would have made such a bee line away from civilization, when suddenly the thought dawned on me. My early memories of natural history lit me in the head, and I exclaimed: "Chris, it's a wild boar."

We nosed around a while, looking over the signs, and found where the hog had entered a big thicket of scrub trees at the end of the pasture. His trail ran out here in the dead leaves, so we decided to back track, and find out where he had come from. We were all excited now, and made sure that our Colts were in working order. Neither of us were passing up any chance to get a whack at a wild boar.

We tracked that pig for over a good English mile through the woods, and finally came right on to a wallow in a little dip in the ground. Rain water settling here made an ideal place for a hog to bed down, and we found holes where some enormous hogs had spent the night in the red mud. The trees were smeared with mud as high as three feet off the ground, and several small saplings had been ridden completely down by the animals straddling them, while scratching themselves. We scouted around and found two or three more pools where the hogs had been, and a regular maze of tracks. You could even smell hog. We counted seven large beds and four small ones. Evidently it was a favorite wallow for them.

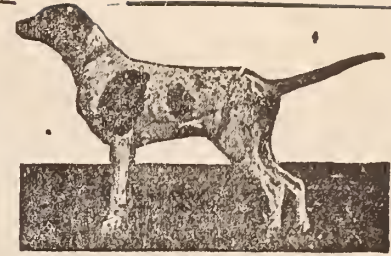
It was nearly dark now, and we made our way back to town through the falling mist, and climbed into our billet to talk things over. I was sure that the tracks were those of a wild boar, but to make sure I asked our "landlady" in my imperfect French, and she said that there were "*Beaucoup des sangliers dans les bois*" and it was permitted to hunt them, they being very destructive to crops. 'Nough said. What we didn't know of the habits and haunts of the animals would have made a book, but we sure were going to find out if possible. Our hostess also told us that one man in the town had been badly mauled and permanently crippled by a big boar two years before, while home on a furlough. The element of danger of course gave additional spice to our plans, and we spent the rest of the evening oiling up a captured "Erlich" rifle, and our Colts, turning in early to dream of the morrow's sport.

WE got up before dawn, and going down to the mess shack, wheedled the mess sergeant to grub stake us. When he saw us and our guns he surely gave us the raz, asking us if we didn't know the war was over, and there never had been any Germans in that locality anyway. We kept mum with a great effort, and talked him out of a steak, some potatoes, bacon, salt, pepper, coffee and sugar and a bit of flour. This we packed in half of an old haversack and proceeded to climb up through the church yard to the hilltop above.

We located the wind direction, and making all speed, quartered around toward the wallow we had located the day before. We had to wait about a half an hour before it got light enough to see to shoot, and then making our way up wind with as much stealth as our heavy trench shoes permitted, proceeded to the wallow.

The hogs had been there during the night, but had left for the hills before we arrived, so there was nothing for us to do around there. We followed hog tracks all the morning through some of the roughest wood country I have ever been in, but not a sight of a boar did we get. We saw tracks everywhere we went. The woods were full of runways, and there were many places where the boar had been rooting during the night. About noon we cooked our grub, and it sure tasted good. We must have covered seven or eight miles during the morning, and we were hungry. We saw two flocks of quail, and one rabbit but didn't shoot at the latter.

After lunch we held a council of war, and decided to knock off for a few hours, and then to locate in the trees near the wallow, and trust that some hog would stray our way. So we made our way slowly back to the wallows, and climbing



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trees, settled ourselves for the long wait. We waited all right. We sat there until nearly nine o'clock that night, but no boar. So we wended our way home to our billet in disgust, but thoroughly convinced that the saying "Hog wild" had originated in France.

We tried it day after day, with no success. It leaked out finally what we were after, and you ought to have heard the laugh we got. But I had more than one mau ask to go along with us during the succeeding weeks. It was great sport tramping around the country, and the time flew by. I was busy in the evenings all this time though, and finally got what I wanted. We determined the first week that the only successful way to get a shot at the boar was to employ dogs to drive them. Twice we saw boar at a distance, but never managed to get close enough. They are the shyest animals I ever ran across. So I worked myself into the good graces of several of the Frenchmen in the town, and finally got myself and Chris invited to hunt with a pack of Airedales.

THE next Sunday we were off about nine o'clock.—eleven of us, with three Airedales and a couple of terriers at our heels. The day was beautiful, sunny, cool and clear, with a heavy frost on the ground. We made our way up into the hills in a long line abreast of each other, and at about nine-thirty the dogs gave tongue, and we were off. We surely had a merry morning. Most of the Frenchmen carried smooth bore rifles that shot a sort of home-made cartridge of slugs. It was a mystery to me how they ever managed to hit anything, and I found out that they lived up to my expectations.

Apparently the dogs had cornered all the wild boar in France in that one patch of woods from the noise they were making. Chris and I wanted to go in with them, but nothing doing. Too much chance of shooting the dogs one Frenchman told me. So we surrounded the woods on all sides, and waited to see who would get the first shot. Meantime there was an awful racket in the woods. Three or four of the men had horns, and of all the tooting and yeling and tally-hoing I never heard the like. My nerves were all keyed up in no time, and I just prayed for a shot, but the Gods decided otherwise, for the noise worked away from me, and pretty soon I heard two shots on the other side of the woods, and a lot of yelling. I ran as fast as I could and arrived at one corner of the forest just in time to see four wild boar pass at about five hundred yards, going like the wind into the next strip of woods. I threw a shot into the leader, a gigantic boar, but he was going so fast and was so far off that I didn't stand a chance and came mighty near hitting one of the dogs, who was close on the heels of the herd. I ran on, and by the time I got to the spot found that four other men had superseded me. The Frenchmen who had that post had killed

a young boar, and there was wild jubilation. Much hand-haking and patting on the back, and a regular cloud of smoke going up from the pipes of the four of them. I joined in on the congratulations, but found out afterwards that, much to his disgust, the man had missed the big boar at close range, and had sniped the little fellow, who ran next with his second shot. He was carrying a double barreled shotgun of antique design, loaded with buck shot, and must have gotten an attack of the ague to have missed so close. He couldn't have been more than fifty feet off when they passed.

We stood around until the rest of the party came up, and it was decided to leave the boar there, slung in a tree, and go on to another patch of woods, for the Frenchmen said that it was no earthly use to try and follow the rest of that herd.

The dogs were well trained and seemed to understand what their limitations were, for with the exception of the one dog who followed the herd, the rest were easily called off, and we were on our way again. This dog didn't show up again for nearly an hour, and was severely whipped when he did, though I didn't blame him for keeping on after the game.

We struck our next bunch about two miles further on, and I witnessed a battle royal between the dogs and an old boar, whom they had bayed. It didn't last long, for he played out soon, having been severely wounded by one of the Frenchmen. This was an enormous beast, standing nearly four feet off the ground, and had great tusks. I would have liked to have been the one to have done for him.

That ended the hunt and we proceeded home in triumph, bearing the two boars, slung on poles in the most approved ancient style. I helped eat part of the little one, but cannot say that it made much in the way of a treat.

We went out several times after this, and though we got our boar every time, I never landed one myself, and when we pulled out for Bordeaux the day after Christmas on our way home, I was almost sorry that I could not spend some time more with the good friends that I had made there in pursuit of "le sanglier."

THE MUSKALLONGE.

To the Editor of FOREST AND STREAM:

IN the article on the muskallonge in the September number Mr. Graham has some comment on the origin of the fish's name. Last season in Northern Quebec I had an Indian guide who told me that he was of the "Tite de Buil" tribe, a name that he pronounced so rapidly that it sounded like some bovine phrase of Teddy Bear! His people lived in between the Montaignais and (I think) the Abitibi and in the old days were well nigh exterminated by the Iroquois. This man's name for the fish was *mijaski kinonge* (grass pike).

WILLIAM C. DORNIN, New York.

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