

BOW & ARROW

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JANUARY FEBRUARY 1965

ARKANSAS GAR SHOOT

CANADIAN CHAMPIONS

HAWAII'S MR. ARCHERY

UTAH BOW TEST



Cougar Hunt With Dougherty

GOLD RUSH/1965

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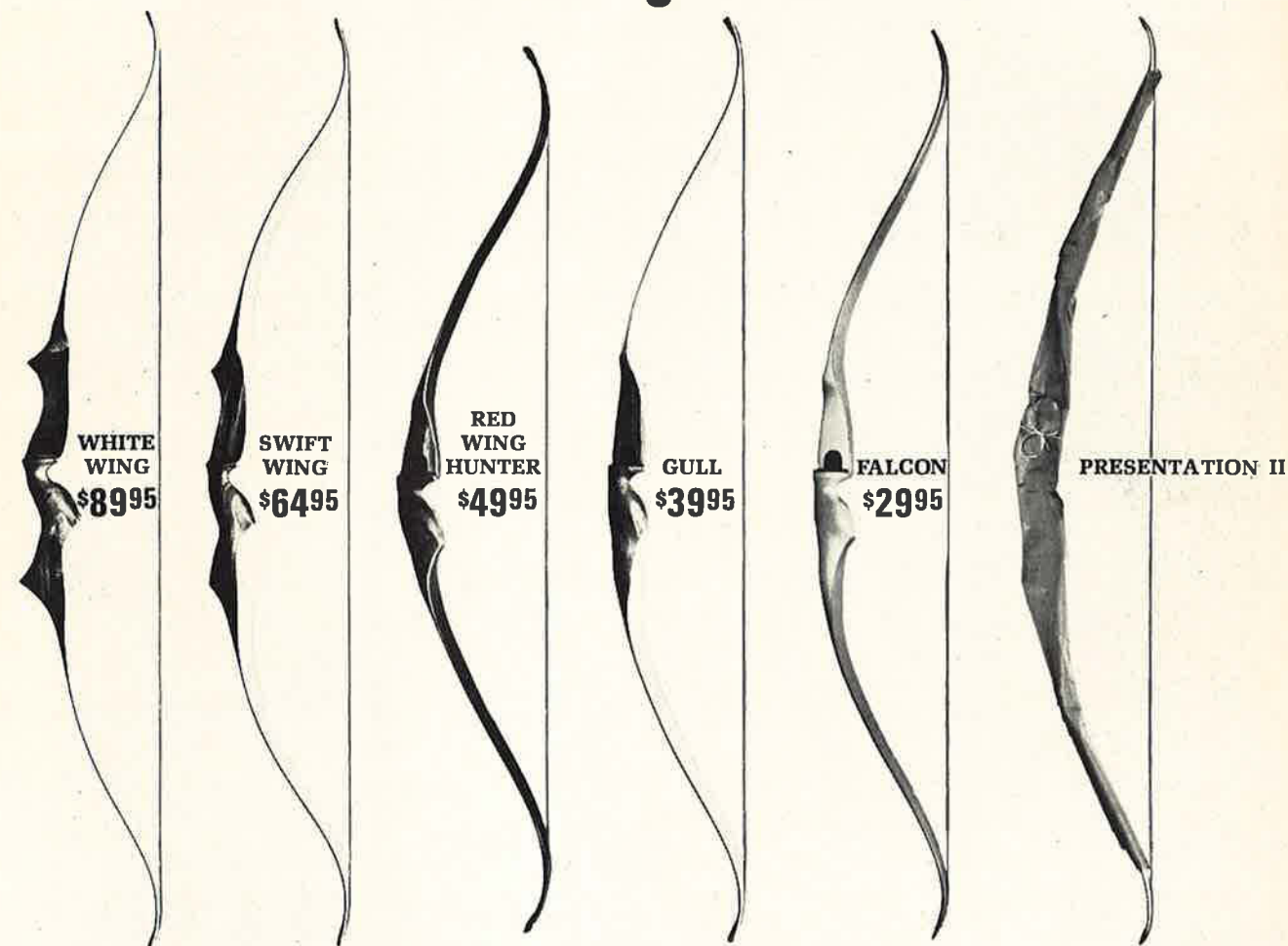


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White Wing: An entirely new handle places greater emphasis on the grip on the 1965 WHITE WING. Palm rests are now standard. This bow presents a new shooting thrill to the archer who shoots it for the first time. • 66" and 69" lengths • Weights from 25-50 lbs. (Weights over 50 lbs. \$15.00 extra.) **Swift Wing:** A terrific new bow designed with your entire family in mind! Full working recurves, deflexed limbs, plus an all-new handle which provides a palm rest at no additional cost, make the SWIFT WING an ideal bow for the entire family. • 64" and 66" lengths • Weights from 25-50 lbs. **Red Wing Hunter:** The perfect hunting bow. Extremely fast and stable, the RED WING HUNTER will take a long draw with surprising ease never before available in a short bow. The Hunter features a riser of Brazilian Rosewood combined with dark brown glass giving it a rich beauty unmatched in the industry. • 58" Length • Weights from 25-70 lbs. • Weights over 70 lbs. — \$15.00 extra. **Gull:** Rugged, fast action and an extra long sighting window make the GULL a versatile bow which is at home on the target range, in the field or on a hunt. Laminated nocks, striking white glass complement the rich exotic texture of the exotic zebra wood handle section. • 64" Length • Weights from 25-60 lbs. **Falcon:** Completely redesigned for '65! This year the FALCON sports full working recurves and an improved form-fitted handle making it the finest bow available in the price range. • 62" length only • Weights of 20, 25, 30, 35, 40, 45, and 50 lbs. **Presentation II:** Our top-level secret for '65! We really would like to let you see it now, but we just can't. We can tell you this much though... it has been under development for the last eighteen months... it is the design destined to lead the industry for years to come... it is so revolutionary that... well, we better let you ask your dealer about it. It won't be long now!



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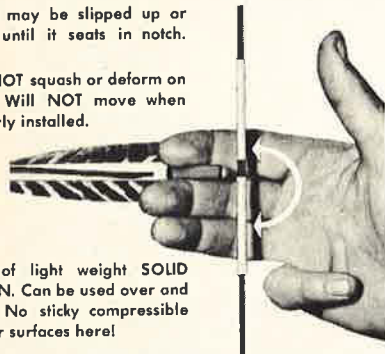
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FEATHERS

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Shield Style
Parabolic Style

WRITE FOR PRICES & SAMPLE



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PUBLISHERS: *Ray Rich & Jack Lewis*
EDITORIAL DIRECTOR: *Jack Lewis*
FIELD EDITOR: *Jim Dougherty*
TECHNICAL EDITOR: *Tom Jennings*
HUNTING EDITOR: *Doug Kittredge*
ART DIRECTOR: *Jan Stiles*
STAFF PHOTOGRAPHER: *Tommy L. Bish*
Advisory Editors:
Don Cavallero, Gary Swanson, Hank Krohn
Advertising Director: *Robert Arsenault*
Telephone (213) EDgewood 2-0252



ON THE COVER: This composite, created by our Art Director, features the photo of a lone bowhunter at sundown, still seeking that elusive trophy against a sky of myriad colors. Photo by Philip Hawkins.

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VOL. II, NO. 5 JANUARY-FEBRUARY, 1965

Terrific Trio . . . from USAC!

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Mail Pouch

HAWAIIAN AID

I get rather annoyed when a new issue of B&A arrives. I must take it home right away or run the risk of losing it. I've kept every issue, but am missing one. Guess it walked away. It's so full of real live action and information.

We enjoyed the article you wrote about bowhunting in Hawaii (B&A, Mar./Apr. 64). The children are delighted to see a picture of their dad in the magazine. Your good humor shows by your picturing his beautiful bowsight.

We've received several letters through that article, asking about hunting in Hawaii, booking tour and hunting guides, etc. Just a few days ago, a letter came from Sterling, Illinois. These people read about Hawaii in B&A and plan to vacation hunt here in 1969. They wanted to get more information because of your exciting article. You started something good for Hawaii.

Ruth Lee,
Jimmy's Archery and
Taxidermy Shop,
Hilo, Hawaii

(Ray Rich wrote this article following a hunt on the island. The bowsight to which Mrs. Lee refers is simply a nail driven into the bow.)

MAKE IT ROUGHER

I have just re-read the article by C. R. Learn, *Let's Make Field Archery More Challenging* (B&A Sept./Oct. 64) and I agree with his article wholeheartedly. This is my husband's and my first bow season at hunting deer. Although we have not shot the course of which Mr. Learn speaks, it sounds like just what the bowhunter wants and needs. I have not as yet come within shooting distance of a buck, but I have come within staring distance of three or four does. My husband has gotten two shots at bucks but they were either over or under.

These are the same shooting troubles that many of our bowhunting friends have had, also. We, as hunters, really need a new field course to shoot.

I have been thinking that a few

months before next year's deer season, the field archery clubs should start putting on the type of shoots described by Mr. Learn — under hunting conditions. There would be a lot more hits rather than misses.

Ruth Fletcher,
Napa, California

(It should stand to reason that one does not stalk from the seat of a bike. He only uses it to get himself into a remote area as rapidly and comfortably as possible. After that, he does his hunting afoot. You'll also find that deer prefer the sound of the bike over the smell of cigarette smoke.)

CONFLICT? NOT REALLY

In your Sept./Oct. 64 issue there seems to be some conflict. I enjoyed *Hunting with Doug Kittredge*. To me, it made sense; silence in the stalk seems of the utmost importance, although I'm a cigarette cougher, myself.

Then I turned a few pages and saw a multitude of pictures featuring trail bikes. How in the world you could possibly get close to deer riding into camp with one of those, I'll never understand. One of those machines nearly ruined my last hunt.

However, I would be interested to know how you'd suggest one could "get closer to more game" with a trail bike, lest one hunt in a zoo!

Charles R. Marigold,
Golden, Colorado

(It is our contention, proven by some pretty good hunters, that many areas are overpopulated with hunters and, as a result, underpopulated with game. To remedy this, one must get into the back country, and a trail bike is the obvious way to get where a vehicle can't or one does not have the time or physical fortitude to walk.

(It should stand to reason that one does not stalk from the seat of a bike. He only uses it to get himself into a remote area as rapidly and comfortably as possible. After that, he does his hunting afoot. You'll also find that deer prefer the sound of the bike over the smell of cigarette smoke.)

STATE PRIDE

I read with great interest, *Champ Versus Ringneck*, (Nov./Dec. 64 B&A) and enjoyed it thoroughly, as I have so many of the articles in your fine magazine.

However, I must take exception to the statement that Bob Rankin

(Continued on page 53)

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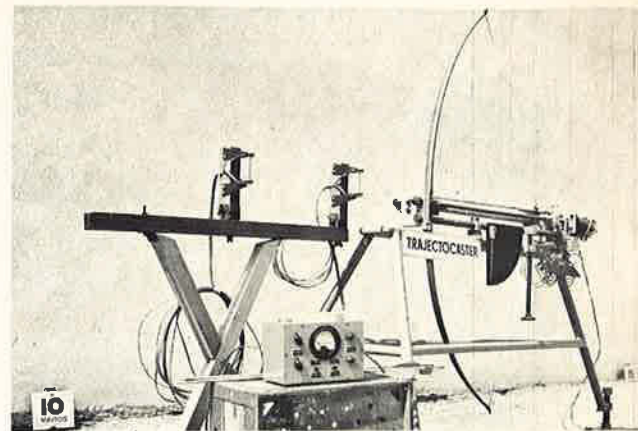


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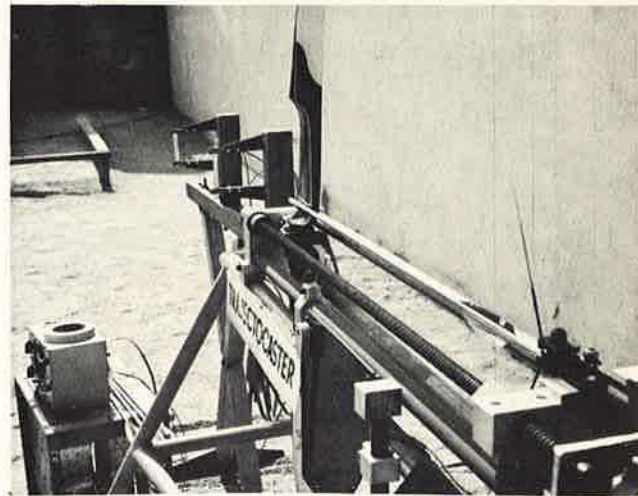
11510 Natural Bridge Rd., Bridgeton, Mo.

TACKLE TIPS

Tom JENNINGS



Above, is Jennings's lemonwood longbow, properly wired and ready for the tests described in this column. Below, is a composite bow of modern design timing-test mounted.



COMPARING THE BREED

In the last issue we plotted a draw force curve on two different bows. One is a Lemonwood English long bow (Circa 1937), "Betsy" by name, and the other a modern composite glass faced and backed recurved bow. We proved graphically that the modern composite bow had only about fifteen percent more stored energy than the self wood (one piece of wood) English long bow.

Anyone who ever had the chance to shoot one of these self wood long bows and compare it with a modern composite bow has little doubt their is more than fifteen percent different bows. One is a Lemonwood English long bow (Circa crepancy is that storing energy and recovering it are two entirely different things. To prove this point we decided to run velocity tests on both bows.

There was something a little incongruous in seeing old Betsy mounted in the Trajectocaster and an electric timer wired to check her every move . . . probably because old Betsy conjures up visions of the Battle of Hastings, Robin Hood and similar events and people from a romantic period in history. She was almost as out of place as a 75mm recoilless cannon would be at the storming of a medieval castle. (Continued on page 46)

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Practice helps to make us perfect. With a Darton bow you will find the "stabilizing grip" gives perfect arrow flight and better scores. You might note the hand checkering on the Electra which improves the stabilizing grip.

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TECH TALK

QUESTIONS & ANSWERS

TECHNICAL SIDE

I was quite pleased with the typography of my article on checking arrow velocities as it appeared in the Nov./Dec. 64 issue. However, in two places, mistakes in setting the type occurred, which might be the cause of confusion to the reader.

In the mathematical solution for the angle of elevation, in the third line, the $\sin(A+B)$ should read:

$$h/f = (h/a) \sin \arctan (a/b).$$

It should read the same as the corresponding quantity within the brackets in the equation on the next line below.

In the tabular solution given in

the last line of the column, the heading for column 8 should read: $227.5 \times \sin B^\circ$

where the 227.5 is obtained from the 223 plus 4.5, as explained in the paragraph preceding the table also in the table, a negative sign should precede each of the values shown in column 4.

Perhaps these corrections could be published in the *Mail Pouch* of the next issue.

M. H. Switzer,
Glen Ellyn, Illinois

(Well, they're published, but that doesn't necessarily mean that we understand them.)

PERCEPTIVE TYPE

My depth perception is poor. I use a sight for hunting and every time I shoot at a deer, I'm either short or too far. Are there sights on the market that will bring me on target without having to know the distance?

Gordon Callenberg,
Chilton, Wisconsin

(To use a sight with success, you must properly guess the distance. This is but a matter of training yourself, much as a logger trains

to estimate the amount of lumber in a standing tree.

(The best means is to practice "stump" shooting. Just wander around the woods a bit, shooting at pine cones, clumps of grass, etc., from varied distances and positions. When you do get a shot at a deer, try to shoot at a particular small spot on the deer rather than at his entire body.)

NOISY FEATHERS

I have been told that a helical fletched arrow traps the air behind the curving feathers and causes noise such as whistling and this is bad in the hunting game. Which fletch would be best for hunting game? Do you think that wild game hears the whistle of the arrow fletching, turns and sees the arrow, then ducks the arrow or jumps away, causing a miss?

James T. Hompson,
Charleston, West Virginia

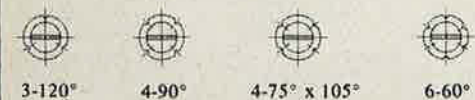
(The feather no doubt has a great bearing on the amount of noise in flight. It is possible to use a parabolic cut to the feather with a helical fletch and have them quiet, but a noisy cut is more so with additional spiral, such as the
(Continued on Page 61)

The most famous name in fletching equipment announces the all new Bitzenburger DIAL-O-FLETCH with these seven all new features:

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Dept. B



HUNTING WITH Doug Kittredge

Why work so hard bowhunting, then waste the meat?

I just returned from a deer hunting trip with a neighbor of mine who bagged a nice forky. We had us a ball . . . good companionship, tremendous weather, successful hunting, but I'll bet dollars to doughnuts that the deer Wally got becomes either dog food or presents to his friends, who in turn feed it to their pets. It certainly is not fit for human consumption the way it is, and only because it was not taken care of.

This deer was shot late in the evening through the paunch. Wally didn't find the buck until after dark. He had left his knife back in camp, along with his flashlight. The cleaning job was done using a broadhead and the "feel" method. From the looks of his fingers later on, this method is not to be recommended.

The buck was found high up a brushy hillside. Wally slung it over his shoulders and started back to camp. After a half hour of stumbling around in the dark, he put the deer down under a pile of sagebrush, intending to return early in the morning to finish the job. We volunteered to go back that night to help bring it in, but he felt there was no need and he was too pooped anyway.

Past 8:30 in the morning, Wally left the warmth of his sack, and it was after 10:30 before he reached his deer. The sun was hot, the deer very warm in the bright sunlight. Flies and yellow jackets buzzed around and in the carcass. The cleaning job hadn't included opening the anus or lung cavity. Nor had the blood, leaves and bits of manure been wiped from the insides.

We brought the deer back to camp as was. Wally explaining he would take it from there. That evening, when I returned to camp, there the buck lay on the ground under the game pole. No game-bag around it to keep the ravenous insect life away, nothing propping open the body cavity. No work done to finish the cleaning or skinning. Needless to say, there was a certain "air" about. Finally, two of us got together and finished taking care of the animal, a job which should have been done as soon as possible after the kill.

Why spend the money, time and effort getting game, then sit back and watch it go to waste? In my book, there is no eating like wild game, but it must be taken care of properly, just like a domestic animal. How people who live in clean houses, have clean cars, pride themselves on how often they bathe, yet can come home with unclean game is completely beyond me. The only answer can be laziness or ignorance. We can't do anything about being lazy, but we can point the way towards eliminating game care ignorance. Here are some of the most often asked questions and the answers I feel apply:

HOW DO I LEARN TO FIELD DRESS A DEER?

There are a great number of books and pamphlets which describe this easy process . . . some complete with step by step pictures. Herter's puts out a fine booklet covering deer and other game; Big Buck Game Bags come with a good pamphlet with each package, to name but a couple.

Field dressing means what you do to the animal before carting him back to camp. It is the removal of the entrails from anus to windpipe. These parts often are shot up, full of blood, spoil quickly, and should be removed as quickly as possible to prevent spoilage of the meat. Of even greater importance is the value of opening the body cavity to permit cooling of the body heat from the meat. Do this task as soon as you locate your deer. *(Continued on Page 51)*

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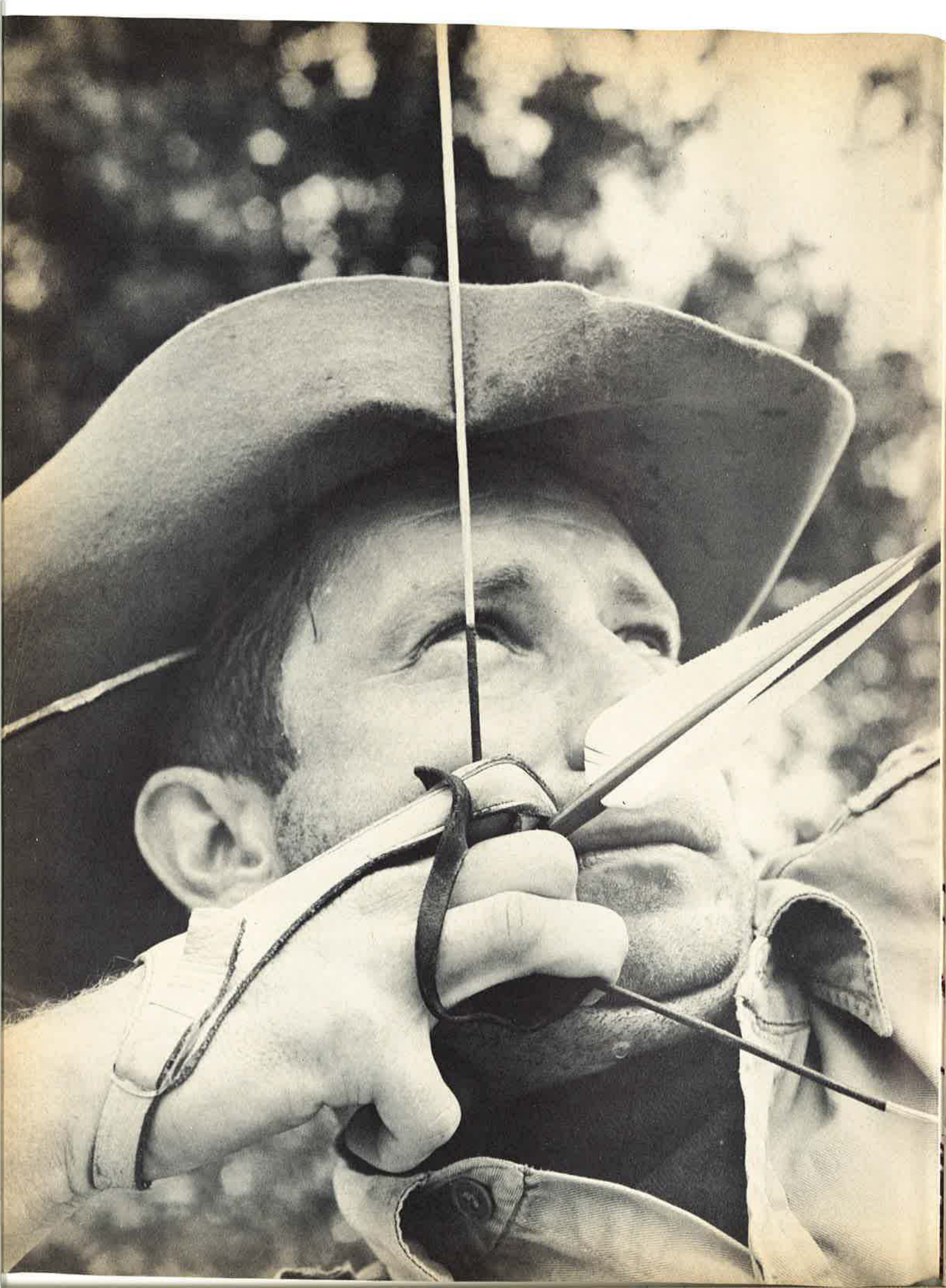
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The Bad Cat Of Reliz Canyon

By Jim Dougherty

STEVE Matthes was only fifty feet ahead of me but it might as well have been fifty miles; the brush between us was as solid and impregnable as a cast iron wall.

When was this picnic going to end? With this thought I took a sound shot on Steve's general direction, steeled my legs, bowed my head and wrenched my firmly entangled **Kodiak** bow free for another assault that would gain me precious yards. A headlong craze-filled charge brought me crashing face down into the tiny clearing. From my prone and pleasantly relaxed position, I cast my gaze up the long straight frame of my guide. "Hiya, seen any mountain lions lately?" I asked, tone dripping sarcasm.

Steve squatted beside me on his haunches, blood trickled down his cheek from a cut issued by one of the billions of grabbing, slashing miserable branches we had crashed through. "Well, what do you think now?" he asked with a slightly amused glint in his grey eyes. "Man, I haven't had so much fun since I broke both my arms high jumping."

This quaint little scene of true life outdoor adventure had begun some time earlier when **BOW & ARROW** asked me to cover a lion hunting and bring back a report of the hows and whys — and a lion. Young and impetuous, I had agreed, not knowing what I was letting myself in for.

The most important item for a good lion hunt is a good guide and I had the best in the business. Steve Matthes is without a doubt one of the best lion hunters ever to put a dog on a track. His reputation in the West is one of unquestionable excellence. At forty-nine, Steve feels he is at the peak of his career, putting to use the lessons learned in a lifetime of following the killer cats throughout the Southwest and Mexico.

Our arrival in camp had been late of a Saturday morning and the drive up the long valley was highlighted by the sight of a bountiful and varied supply of game. Deer were everywhere, an indication to my uneducated lion savvy that this would be fine country for the big cats to earn a living. Near a creek bed we jumped a small band of wild boar. Dove and quail scattered in all directions and long-legged blacktail jackrabbits pulled down their ears and tried to become invisible with our passing. The camp consisted of a small trailer and tent at a green oasis consisting of a spring under a canopy of large live oak. This would be home for the next ten days. The dogs set up a clamor of welcome as we stepped out of the trucks. Steve had brought them in a day earlier and set up housekeeping in readiness for my arrival. He pointed out a pair of lion tracks made by a female and medium kitten within four hundred yards of home. Things looked like they were going to be right nice.

We made a short look-see hunt that morning, as the summer sun was warming the land and actual hunting was pretty much out of the question. Summer lion hunting is a rough operation due to the heat. Most lion hunters simply will not seriously attempt to hunt lions during the summer due to the hardships involved and the slim chance of the dogs sticking to a track. Most

Dougherty, sweating, bewhiskered and bewildered, draws an arrow for shot at the trailed mountain lion.



This photo offers an idea of the type of mountain terrain which had to be conquered in efforts to take a lion.

lion hunters don't have Steve's dogs; most wish they did. Our actual hunting time would be a few hours each morning before the heat erased the good scent left by the cats. Steve advised me that this would entail early rising. In the course of this orientation ride for the dude, we located the tracks and scratches of several cats. This looked like lion heaven.



Lions leave their sign by scratching in loose dirt, pine needles, rotted logs or similar places. The amount of sign in one canyon indicated, as Steve put it, "There was a prospective love match in the making." Scratches of a female and a big tom were in evidence, as well as those of a medium-size romeo.

"That's the dude we want. He's a fine, big lion and he'll leave lots of scent," offered Steve. The males leave more scent than the ladies, which makes it a bit easier on the dogs. Whether we'd be lucky enough to tangle with him was yet undealt in the cards.

Other than the little scout, we did nothing constructive until dusk. Then we went for a drive and did a little draggin'. Lions were working the roads above camp and there were several crossings below, a large batch of limbs tied to the rear bumper eliminated all old game sign from the dusty road. In the morning a track would show clean and bright, easy for us to see. Now there was nothing to do but wait.



Three hours after full daylight found us in the earlier described garden spot of the California brushlands. Steve's lead dog, Brave, had opened on a track shortly after we had begun a walk up one of the three canyons on which we were to concentrate our attention. The long bawl of this noble dog sent a charge down my spine that I never before had experienced. At heel, the other two selected for this first hunt whined and strained to be off. Brave's voice lined out up canyon and to the ridges, and with a word of encouragement, Buck and Goldie leaped from restraint as though propelled by an unseen catapult.

I had been warned of the famed Matthis endurance by those who had hunted with him. I'm in darn good shape due to constant hiking and hunting but this was unbelievable. I could do nothing but force from my mind every other thought than that of simply keeping up with this man. Unless you have seen the brush covered mountains that make up the coast range of California you cannot fully understand the scene.

Briefly they are virtually impregnable, unless you're Steve Matthis. He went through that stuff with a speed and a violent force that few men half his age (which is about what I am) could equal by half.

There are no trails, game trails or otherwise; only occasional little openings, a barely discernible line of travel offered in the pattern of growth.

For the hunt I had selected my Bear Kodiak of fifty-four pounds with an eight arrow bow quiver attached.

This was fully loaded with Easton 2018 Durals pointed with Little Shaver heads which I had altered into four-blade affairs. Generally speaking, this is an easy bow to handle, maneuverable and pleasant in the hand. Within an hour I wouldn't have given you a nickel for every one Fred Bear makes in 1965 — or any other bow. Burdened with this stick that managed to tangle with every other living sitch, my progress was sorely hampered and the foulness of my thoughts startled the mind that gave them birth.

The cat had naturally gone over the highest ridge, and the dogs never did jump him, as they had begun on what turned out to be the long end of a long hard track and conditions eventually became too much for them. They made a lose in a pocket that was so thick that I experienced a mild case of claustrophobia. It was so thick we were lying on our bellies, our mode of travel for the last half mile. Steve looked at me with that same good natured air and indicated that at least we were getting the worst part of the hunt over first. I looked at him, at the dogs and up and around me at the nauseating brush. "I don't care what Smokey the Bear says. Burn it."



By sheer will power I made it back to the truck, a torn and shattered remnant of my former self. The flame of desire to add a lion to my list had ebbed and fluttered to the point where the pilot light barely burned. My nice new shirt had a vague resemblance to a hula skirt, a good portion of my lower anatomy was being air conditioned by a new system of allowing maximum air circulation by free and easy passage through a highly complex arrangement of holes and my arrows — let's not try and describe my arrows.

ON THE THIRD MORNING, I somehow dragged my skinny frame out of the sack at Steve's bubbly, enthusiastic greeting of "breakfast is ready." An hour before daylight, we hit the road, driving slowly and looking for tracks in the headlights. We checked the crossings — nothing. Jackrabbits scampered in all directions, we saw several legal bucks but couldn't be bothered now. Made a long walk up two canyons, nothing doing. Bones loosened up, I kept up with the mountain man — a surprise to me. Back in camp early, as we couldn't get anything going, I missed a fox four times. Swell omen!

Steve's dogs are the results of long and studied inbreeding and are his own breed. Some of the original strain dates back to the pack of the legendary Ben Lilly, last of the mountain men.

The cats work in a pattern; like all wild life they have a system. Steve understands this system and has taken five hundred or so of the big cats in his career.

He also has attained a reputation as one of the finest jaguar hunters alive today. His lion hunters have one hundred percent success. It is interesting to learn about the big cats from one who is an authority, as there are so many so-called lion hunters and trappers often erroneously referred to as lion hunters.

Steve was a hunter for the California Fish & Game for thirteen years, and if he says we'll get one, he is serious.

Steve has noted over seventy percent of the lion kills he finds on deer are bucks. This makes an appreciable dent in the huntable deer population. During the hot summer months, the cats will make a couple of kills a week, and that adds up to a pile of venison.

FOURTH DAY: It is not so hard to get up, as the memories of the "death march" have faded sufficiently to give me heart. Breakfast is always ready when I arise. Steve is a good cook, offering nothing fancy but good, solid food of proper balance. Proper nourishment is essential for this type of endeavor, and too many hunters eat nothing but fried starches while hunting hard. This will take a lot out of you in short order.

I have come down with a first class case of poison oak, and am totally, thoroughly, completely covered except for my face. Steve calls it the Reliz Canyon Rot and there is nothing to do but accept it.

On a hunch, we head right to the canyon where Brave opened Monday and hike to the head. Nothing doing here. We then go to the Point, a finger ridge where lions cross when they are in the area. Here, we walk up the trail to find a scratch and right in the middle, the brightest track I ever saw.

For once Steve shows excitement, as he dashes to the truck and opens the hatch. Brave and Goldie bail out and run toward where I'm sitting looking at the track. On a dead run, Goldie about turns inside out as she hits the track. Recovering, she opens with a bawl

Brave, the guide's lead dog, is descended from animals raised by the renowned Ben Lillie, most often referred to as Last of the Mountain Men.



Cougar Hunting
Has Its Ups And Downs,
But This Bowman
Found It
Mostly Up — Uphill!

and Brave joins in. They're off like a shot and this looks like the real thing.

Steve is cursing and stomping the ground. We are late, the sun is high and the dogs may not be able to do anything with it. Steve is mumbling about why he couldn't have been here at sun up. Up on the ridge the dogs suddenly become confused. They cannot move the track, although they are trying so hard to take it out of the pocket. They want that cat.

Steve decides to go up and help them out if he can, but it looks pretty grim. I stay below to give him a line on the dogs should they go out of his hearing. Up on the sidehill it is hotter than the hinges of Hades' front door, and the dogs cannot do anything but bawl their discontent.

Steve finds where the cats were bedded, leaving much sign of their presence and the fact that they have been eating much fresh meat. There are two cats.

If we had only been there, but *if* is a very big word, and the world revolves around it.

The cats won't be far; somewhere along the long sidehill, probably right up in those rocks. Tonight I'm going to try and call one up with the varmint call. I know it will work as I've called up three in the past, all sad experiences that I hate to think about, but we will give it a try.

It is three hours after dark when we pick the spot to make our stand, the moon is full, bright enough to read by, which is not good for calling animals up close.

We call for half an hour and no lions. A couple of fox give us a pass and the owls go nuts, but no lion. For some reason, we both think tomorrow is going to be the day.

FIFTH DAY: I hit the Ziradryl bottle to relieve my itching, but my legs are swollen badly enough to make getting into the Levis a problem. When I walk the blisters break, proving poison oak is something anyone can do without. For five days I've been in the obnoxious stuff over my head and cannot understand why I still don't have any on my face. I've got a sexy beard by now, because my buddy, George Kili, grew one and killed two lions. I'll try anything. Maybe the beard keeps off the Rot. An interesting thought I'll have to pass on to medical science.

We hit the road about first light and drive down to where we made the stand with the call. Less than one hundred yards past the spot, lion tracks hit the road. The dogs are off like a shot. They are on the long end of the track but Brave and Buck think it is pretty fine. Naturally, the dogs go over the mountain, so we have to follow. By now, I can keep Matthis in sight, as great an accomplishment as I can ever hope to achieve, the brush is still bad but it no longer appalls me. Duck your head and charge. We have four dogs on the trail, as Frisco and Goldie also have been turned out, but when we get to the top of the first mountain we cannot hear Frisco.

"If Frisco is out ahead, he'll be on the cat," says



Dougherty pauses to make friends with one of dogs during lull in the hunt. Or is he seeking consolation?

Steve, but it is hard to tell, since the dogs are a long way off and deep in the next canyon.

Of course we have to go to the top of another mountain. Onward and upward. I have developed a new mode of travel to reduce the complications of the bow hanging up. The string is in my pocket, I take the bow and throw it ahead, arrows and all, then I crash to it and repeat the operation. Fred Bear makes a tough bow, as it also serves as a walking stick, and in some cases, I club poison oak out of the way, although by now this is really a bit late.

We have been following for two hours, and finally are above the dogs which we can barely hear far below. To go down is a bad scene, as we can never come back out the same way and to go around is mucho miles. But it's all in a day's lion hunting.

We head down, taking it easy, trying to hear the dogs and learn the story. Faintly I can hear them, then I can't. Puzzling. We go down some more, not wanting to sacrifice all of our hard won height.

Deeper in the canyon, we cross a dog track on top of a big lion track. Steve is puzzled, one dog here, one lion here, different track than we started. Then we can hear the dogs clamoring. In the rocks of the canyon sound is tricky, but it is only one dog.

"Sounds like he is trying to tree," Steve says, but I can tell he is not sure and doesn't want to offer false hope.

The side hill opens up and it is easy going. We make good progress and suddenly there is Frisco under a bunch of oaks, walking around a tree. The dog looks pretty calm. I look again and Frisco barks.

"Don't look up. He thinks you see something," Steve mutters. So I don't look up, but I peek under my hat brim; still nothing.

"Well, you got one."

I look and there is a tawny blob amid the thick growth, and a head the size of a wash tub is suddenly thrust down through the branches. If looks could kill, I'm stone dead. Face to face with this beautiful lion, he is big, really big. The whole thing was so quiet and uneventful that it doesn't seem right. I somehow expected more commotion. The head is pulled back and I can hardly see him, it is a bad tree; very bad.

Steve urges him to talk to the cat and Frisco complies by barking vigorously. I'm trying to take pictures,



Comparison between glove and lion's paw mark shows the size of the cat Dougherty and guide hunted.

Frisco, one of the hound pack, tried to literally climb the tree to get at the cat once it was cornered.



Mountain lion, barely visible amid the foliage, was too well protected for an easy shot with bow and arrow.

but the cat is impossible to see from any angle, and he is nervous, uncomfortable on a small limb. The tree is on a steep side hill with perhaps a sixty percent grade, so the footing is rough. The only possible shot is straight on and not very good, so neither of us wants to take it.

As I walk around, I look at this animal as best I can, taking a few poor pictures. A truly superb animal, absolutely beautiful, it is a sight I'll never forget. I can't locate a good path for an arrow. Steve wants me to shoot, because old Tom is quite edgy. We discuss trying to kick him out and trying for another tree, but the cat is fresh and the day getting too warm. Bad odds. This would have to be it.

Finally I find a spot, not good, but I'll have to try, about a five-inch hole through to his ribs. I have to clear the brush to allow room for the bow and this is a bad deal, as the noise upsets the cat. I can find no footing and finally balance on one foot on a pointed rock. I start to draw and quit.

"I'm nervous," I tell Steve, my stomach suddenly doing a few flips.

"Sure you're nervous," Steve nods. Then I settle down. This is what all the hard miles were for. The Kodiak draws smooth, the razor blade-loaded head is lined up and I sight through the hole towards the patch of tawny hair that covers the lion's rib cage and release. The arrow hits a twig, a tiny twig reaching upwards through that hole toward the sun. There is a clang and a crack as the arrow hits and then all billy hell breaks loose!

"Give him another one. He's coming out!" Steve takes a firm hold on Frisco as he hollers.

For a moment, I can't take my eyes off the cat, as with the utmost grace it swaps ends and heads out of the tree. The cat comes right toward Steve, and as I get on him, the guide is in my line of fire. I leap off the rock toward the cat, as he hits the ground and goes

twenty-five feet in a bound. It is a running shot but I can swear it takes him right in the chest. Then he is going out of sight up the other canyon, covering ground in huge leaps.

Suddenly it is so still, until the silence is broken by Frisco's whining. Steve turns him loose and off he goes, hot on the track.

My arrow must have hit a bone, allowing no penetration. The second was a miss, passing just beneath the lion's chest. The first apparently was deflected by the twig enough to cause it to strike on an angle into the hip bone through which nothing would penetrate. We still have hopes, but inside I am sick. Never have I been so discouraged. Steve is encouraging and not in the least resentful. He knows and understands the breaks and I guess he knows the agony that I am going through.



The cat is gone — in the heat Frisco could not pick up the scent, though God knows he tried until his poor nose was raw. He looked at me like I was some sort of bug, I swear.

It was a long hard walk out, with the sun high and the temperature pushing 100 degrees. Late afternoon found us just making it to the truck. Although the terms of the hunt had been fulfilled as far as Steve's obligation is concerned, he insisted that we keep at it in the hopes that we will strike the big tom again. He says I deserve a lion but he is wrong there. I blew the party.

THE SIXTH AND SEVENTH DAYS are spent hunting for the big tom. Steve feels that if he is the slightest bit sick, we can cut his track at water. This is not too bad, as water is located in but a few spots. We check it all out and find nothing but trout. The streams are drying up but many deep holes remain. In these are many beautiful native rainbows of four to twelve-inch size. I am amazed at the fish population, as the streams would not be large when filled with water. With hand made rigs fashioned on the spot, we take a few of the beauties as a pleasant diversion.



On the seventh day we find the tom's track. He is traveling easy and we track him for a good distance by sight as the scent is so old the dogs are able to get nothing but an occasional whiff. In one respect I am happy, as the cat is not hurt and will be alright.

Maybe some other day we will tree him again. I hate the thought of someone else catching him. I feel as though he is my lion and that he deserves his freedom if I can't take him.

BY THE EIGHTH DAY we are branching out, hoping to run across another cat in the other locations, but the sign seems to have disappeared, as though all the cats have left the area at once. This they could have done, but in short order they or others will move into the range for a stay. This area is a natural lion funnel from the vast reaches of the coast range, during the course of a year many many lions use it. Steve feels that the lions are increasing in California, as there has been no full-time hunting by State agencies for quite a few years.

The loss of the cat has done something to my normal high level of confidence. Confidence is essential, I feel, and if you don't have it you're beat before you start. I told Steve that maybe I had it coming, as the breaks had been falling my way for quite awhile. I had started to believe I couldn't miss. Now I knew I could.

NINTH DAY: Late in the morning, Goldie tries to start a day-old track. There is a good female in the canyon loop and things are looking up, again. She cannot do much with this scent but we know the cat will be on the mountain. With one day left, my spirits rise a bit, when Steve says we'll get her. Never in the course of ten hard and sometimes extremely bitter days has he lost faith in the hunt nor in me, which is encouraging. He has consistently tried to buck up my spirits after the fiasco of the fifth day. I am his first bow-hunter and responsible for his first loss of a cat, I would have expected him to put me out, but they threw away the mold when they made him.

TENTH DAY: We are at it bright and early, heading up the canyon where the female should cross. I have some confidence, as I have a reputation as a "come through in the clutch type" with my hunting buddies. On many a hunt I've scored in the last moments.

Suddenly the dogs open and almost instantly tree, but something is phony. During the long hunt they have ignored the many bobcat tracks, a sign of superb training, but this one was too much and they run into each other literally. I am in a killing mood and the bobcat is a suitable end to my homicidal instincts.

The first arrow knocks him spinning from the tree into the waiting dogs as confusion reigns. The cat dives out and up another tree. The next time he hits the ground he is stiff as a board and the dogs get in a few licks. It's not a lion but it is something to chew on.

The hunt is ended and we are about ready to wrap it up. We both feel badly to some extent but it has been a trip worth taking and an experience I shall take with me. Not all hunts can have successful endings, but one never hears too much about the ones that got away.

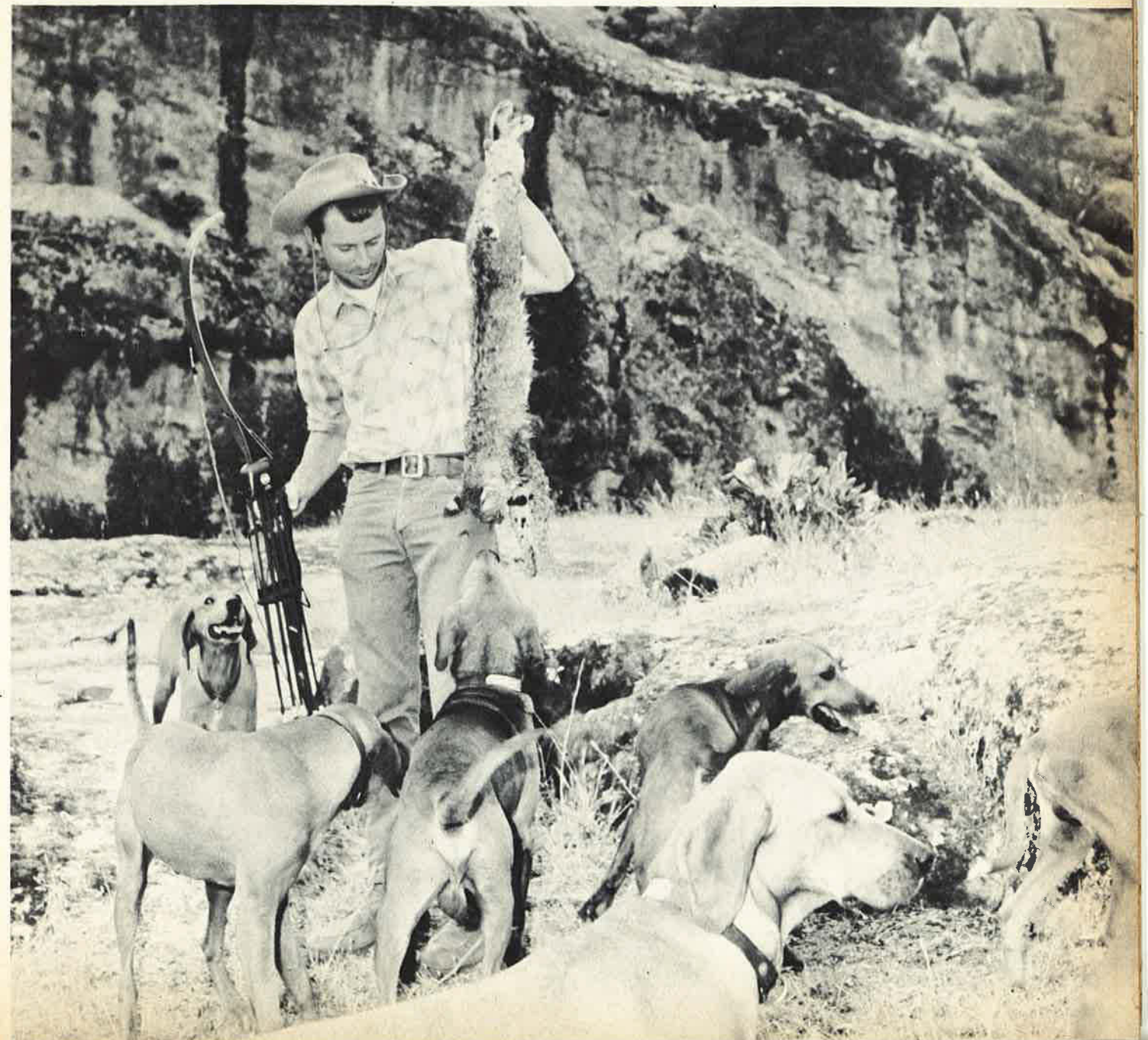
Back at Steve's home in Paso Robles, we shook hands goodbye. He agreed that we should do it again, that he will get me a lion. That is reward enough.

Maybe on that future hunt the lion will tree good, with no interfering little twigs. And maybe — if we are lucky — it may be the big tom of Reliz Canyon. It's a big if, but then if is a big word. ●



Deer has been recently destroyed by mountain lion, which rips out rib cage, then feeds on a few choice morsels. Such a cat may easily kill a hundred deer every year.

Bonus for the hunter was this bobcat, which was treed by the hounds after they had lost the scent of mountain lion. The dogs, however, are rarely fooled by errors.



THE big alligator gar were taunting me, daring me to shoot. They lazily rolled their six foot long armor plated bodies insultingly near the bow of the boat where I was poised, bow in hand, praying for a chance to loose an arrow. But they were either too far away, too fast or broke water under my nose just after I relaxed my vigilance long enough to slap at a persistent mosquito. The frustration was growing unbearable.

"You might as well give up," calmly advised my host, guide Charles Alter of DeWitt, Arkansas. "You're never going to sink an arrow into a gar that way. And it's probably a good thing. With the rig you've got, a hefty 'gator would yank you right out of the boat."

I relaxed, looking sheepishly at the standard bow reel, ninety-pound test line and forty-pound bow that had always been so formidable on small scissorbill gar. He had a point.

We were anchored off a long sandbar on Arkansas'



famous lower White River, deep in that tangled green bottomland wilderness where the White, Arkansas and mighty Mississippi Rivers merge. This trackless country looks today much like it did when French explorer DeTonti traveled through this region in 1686 and established the first permanent white settlement in the Mississippi Valley... Arkansas Post, now a national monument.

"It takes special archery tackle to nail the big 'gators," Alter explained, adjusting his tall, rawboned

frame to a more comfortable position among the heap of gasoline cans, tackle boxes and assorted gear gar fishermen must have to function.

Alter's two clients, Chicago business executives, perked up from the long wait between battles, showing interest. They were fishing for alligator gar with rod and reel, an exciting enough business as it is. The idea of bagging these fresh water brutes with bow and arrow must have seemed to them like a tough nut to crack.

Charles Alter probably knows as much about the habits of alligator gar as any man alive. A DeWitt rice farmer by occupation, sportsman by avocation, Alter was one of the original guides on the lower White River during gar fishing's heyday in the 1950s.

Large alligator gars are becoming scarce these days. Back in 1950, it wasn't unusual for a party of gar fishermen to land eight or more one hundred-pound plus 'gators in a day's time, day after day.

But, a combination of extensive commercial and sport fishing, pesticides, cold water from upstream hydroelectric power dams and other factors, soon trimmed the gar population.

However, the alligator gar's comparative scarcity has made it even more a prized trophy, especially among bowfishermen.

Arkansas contains some ideal bowfishing territory for gar in the lower White, Arkansas, Mississippi, Ouachita, Saline and Red Rivers and their numerous tributaries and ox-bow overflow lakes. Four species of gar are found in Arkansas: Shortnose, native to clear mountain streams; longnose, spotted and alligator gars, ranging throughout southern Arkansas.

Naturally, bowfishing is a popular sport with Arkansans, who consider their state to be the Bow-hunting Capitol of the South, because of its liberal archery hunting regulations. But most of the bowfisherman's attention is directed at the smaller long-nose (scissorbill) and spotted gars, which abound throughout the southern part of the state. However, the alligator gar, which can weigh over three hundred pounds and reach a length of eight feet, remains the bowfisherman's top trophy... The Holy Grail.

"The ordinary bowfishing rig just isn't suitable for taking large alligator gar," continued Alter, who is president of the White River Bowmen's Club and past president of the Arkansas Bowhunters Association. "One must have a flexible rod to play a big gar or he'll break the line, even fifty-pound test line with a steel wire leader. Playing a large 'gator with a bow held in the hands just won't work, and it could be dangerous."

An archer can get by with attaching his line directly to the bow when fishing for smaller gar. But this technique isn't recommended for taking a fish as powerful as an adult alligator gar... The archer may take an unexpected swim.

Alter and his long time bowfishing companion, Dr. Rex Hancock of Stuttgart, have evolved a technique for taking big gar that is safe but effective. The braided bowfishing line, usually of at least ninety-pound test, is not fastened to the bow reel, but to a small cork. The cork then is taped lightly inside the hollow of a standard commercial reel. If a big 'gator is hit and churns for the bottom, he will pull the cork free instead of yanking the bow from the archer's hand or hauling him overboard.

"Then you follow the cork in your boat until the gar stops his running," Dr. Hancock recommends. "When the gar slows for a rest, quickly tie the line to an ordinary gar fishing rig — short deep sea rod and sturdy star drag reel — and play the gar in the conventional manner until it is tired enough to bring alongside for the coup de grace."

Alligator gar never are brought into the boat alive. These fresh water carnivores have a jawful of razor sharp teeth capable of ripping a man's leg to shreds. Accidents have happened, although gar aren't known to attack intentionally. If a trophy is wanted for the den, a .38 Special slug through a gar's forehead will loosen him up enough to make him sociable.

In some cases, Alter doesn't use a bow reel at all. The line is carefully coiled in the bottom of the boat,

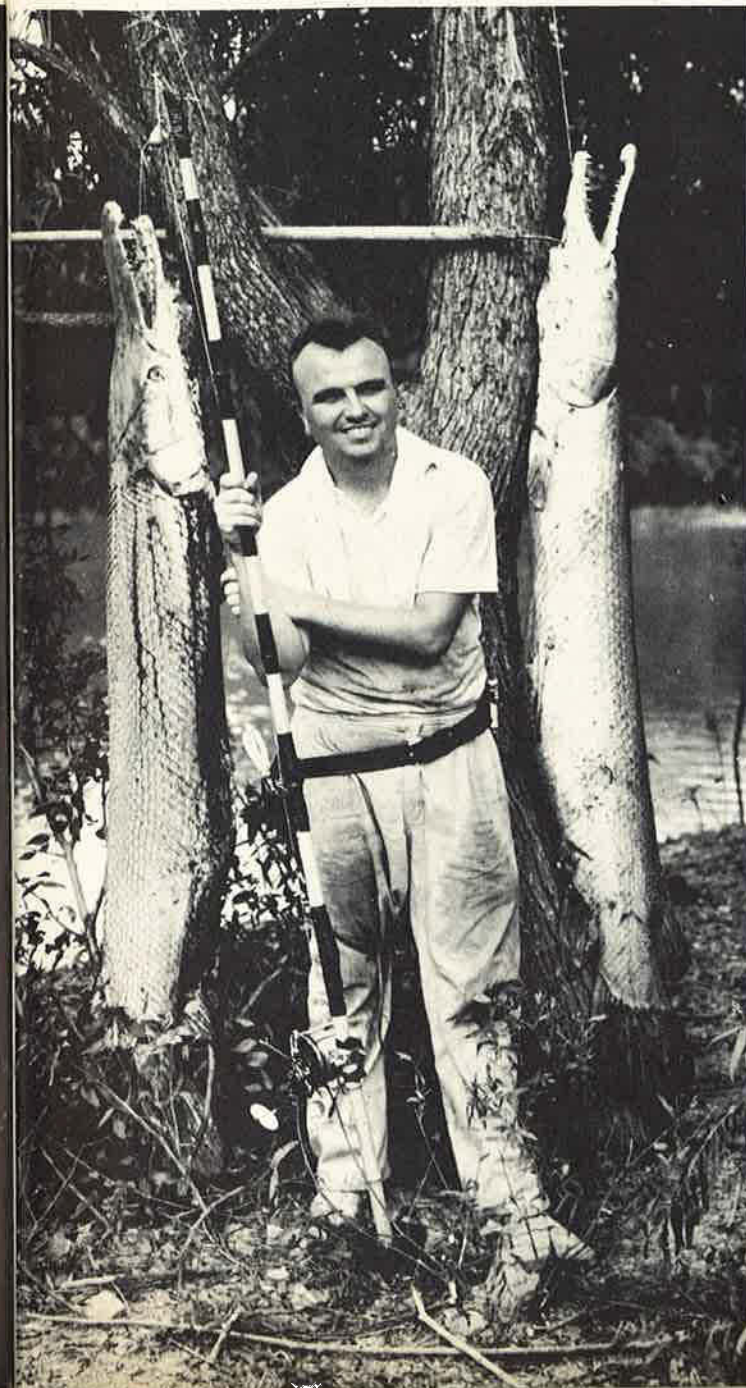
bowfishing's toughest trophy

By John Heuston



*The South's Alligator Gar
Is As Rugged As Its Name Implies!
Photography by Harold Phelps*

Lanterns sometimes are used to spot gar floating on the surface at night. This fish has a functional lung and floats near surface on summer nights.

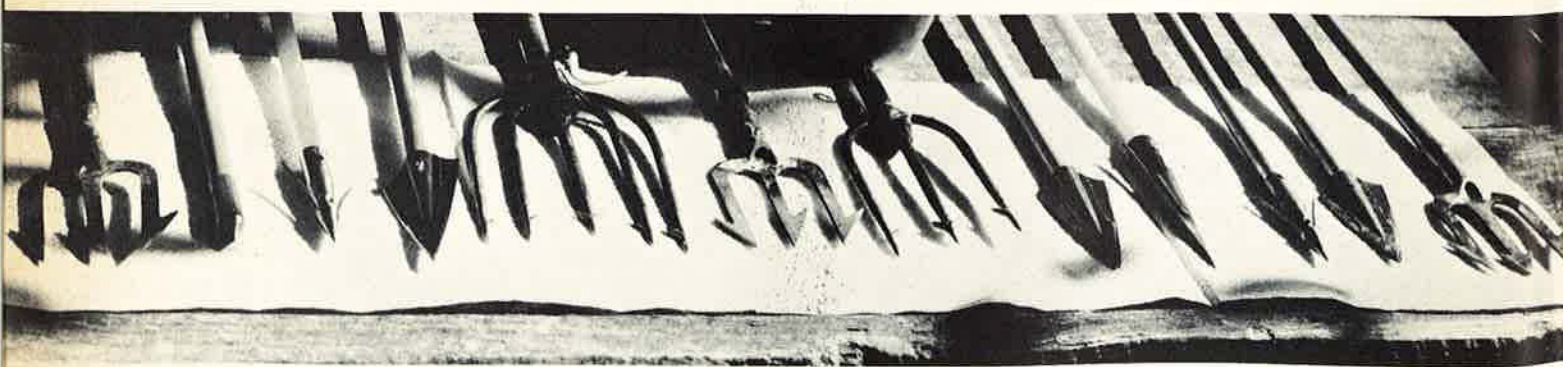


Johnnie Fox of Memphis, a veteran gar fishing guide, poses with two of large alligator species taken from St. Francis River. Such large gar now are becoming quite rare trophies.



Bowfishermen are an inventive lot, trying constantly to produce a better gar fishing point. The gig points in this collection, as well as the broadheads, all are used. The gig point works on small gar, single penetrates big ones.

O. K. Jones, Little Rock bowfisherman, draws a bead on a gar during night hunt at Maddox Bay in southeast Arkansas. Night gar fishing is permitted on special permits. In this instance, flood lights are used to spot the fish.



making sure that it will not foul on any equipment as it unwinds.

A rugged arrow and special point is needed to penetrate the layer of tough garnoid scales that protect an alligator gar's body. These scales are so hard they will turn a pistol bullet fired at an angle. Indians used to make arrow points from them.

"I prefer to use a solid fiberglass fish arrow with a single barbed point," Alter says, "The long single point we use is homemade and has a nail for a barb.

It will penetrate the thick scales and sink deep enough into the body to hold. Gig-type points are fine for small gar, but the prongs are too short to penetrate inside a large gar's body and hold him while he thrashes around."

Alter, Hancock and other veteran bowfishermen use heavy hunting bows, fifty-five pounds draw weight and over, to propel these necessarily heavy glass arrows. Since the hot sun in the Arkansas Grand Prairie region often causes laminated glass and wood



Max Zeiner, Arkansas Instinctive Field Archery Champion, displays some of the gar taken during a day's shoot at Maddox Bay. Note homemade reel, gig point he favors.

Dr. Rex Hancock (left) and Charles Alter display this scissorbill gar killed during outing in southeast Arkansas. Note that a Bear razorhead was used on this type fish.

bows to warp and "swap ends," inexpensive solid fiberglass bows are popular. Also, if you drop such a bow overboard during the melee, it doesn't put such a crimp in the family budget.

"Since the alligator gar hasn't been a commercial species of much value, at least, until recently, few scientific studies have been made of them," Alter says. "I believe his reputation as a destroyer of game fish is largely undeserved. One summer, I cut open and examined the stomachs of over one hundred alligator gar. I found portions of partly decomposed longnose gar, but no game fish.

"If there are any depredations on game fish that amount to anything, I lay the blame on the smaller scissorbills and immature alligator gar, not the adult 'gators."

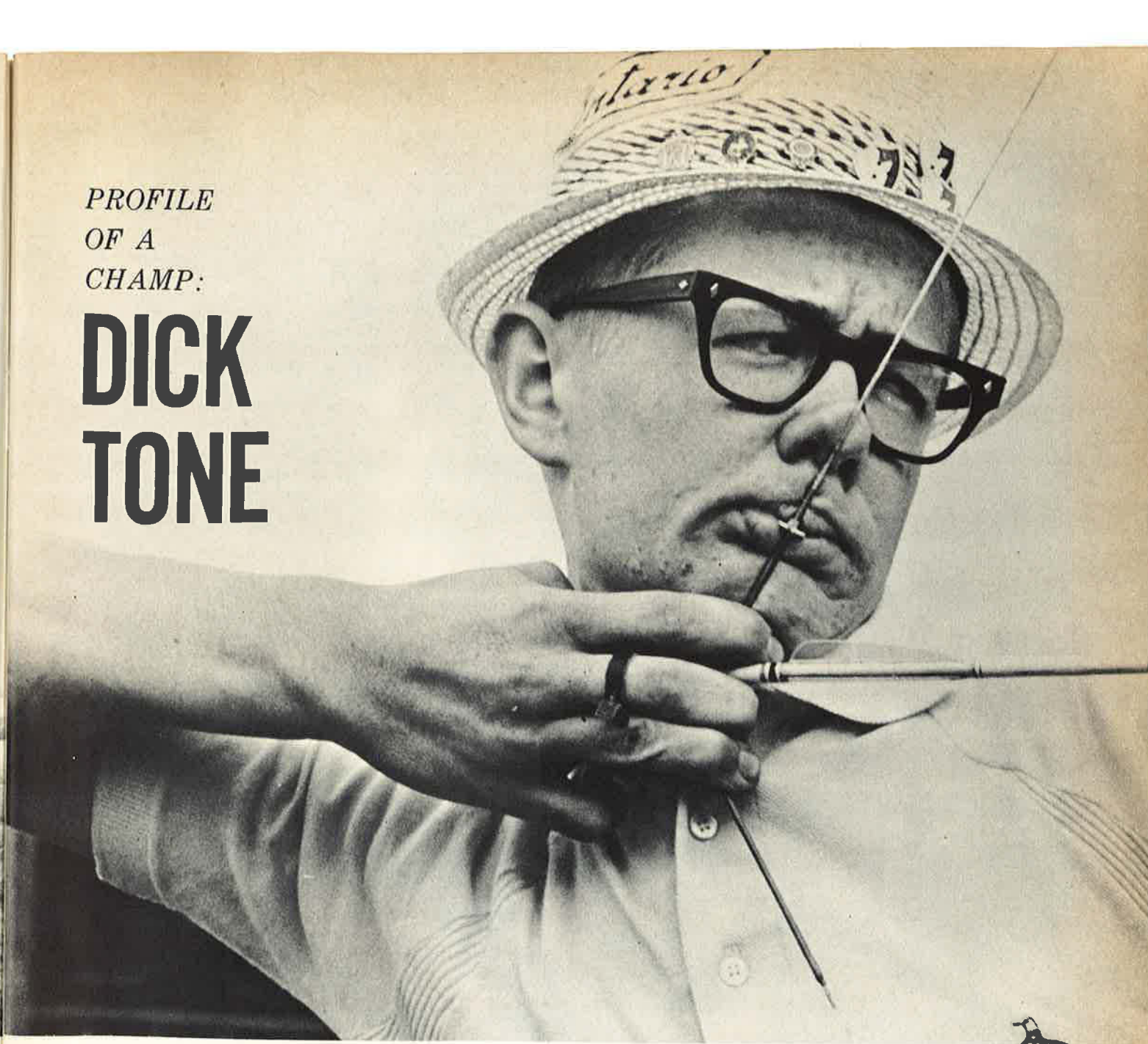
Alter and Hancock have long waged a two-man war to have the alligator gar classed as a sporting fish, not a pest, and protected by law. So far, however, their efforts have been unsuccessful.

"It's the small gar," Alter contends, "that feed
(Continued on page 52)





PROFILE
OF A
CHAMP:
**JOAN
GALLIE**



PROFILE
OF A
CHAMP:
**DICK
TONE**

*ARCHERY
IN CANADA HAS
PASSED ITS
INFANCY,
AS THESE SCORES
SHOULD TESTIFY!*

By Joe Higgins

WHEN five years old, Dick Tone was in kindergarten, along with thousands of other Canadian children. He played with building blocks like the others; he listened with rapt attention to the stories told by his teacher and he, like the rest of his generation, began the long road of education. But somewhere along the line at that early age, Dick was given a child's bow and arrow.

He hefted the tiny bow and it seemed to fit in his hand naturally. He let his first arrow fly; he can't remember where it landed, nor how far it went, but that, too, seemed a completely natural gesture. And it was.

For Dick Tone of Willowdale,

Canada, it was so natural that he kept at it. It paid off, and handsomely, for in August 16, at only eighteen years of age, he won the Canadian National Free Style Archery Championships with the record score of 4019!

His score at the competition, held at the Club des Archers de Joliette, about fifty miles from Montreal, was: Canadian, 950; FITA, 1033; Field, 981, and Hunter, 1055. Total: That whopping 4,019!

His was not the only outstanding accomplishment, since they seem to grow their champions young in Canada. Crowned with Dick, was a girl three years his senior and a bride-to-be. This was Joan Gallie of Toronto, who began shooting at

the age of 11. She scored a total of 3,615, also a record, to become the Canadian Women's Champion. Her score: Canadian, 864; FITA, 941; Field 850; Hunter, 960.

BOW & ARROW went to the Canadian Nationals and was impressed, not only by the shooting, but by the club headquarters, the layout of the land and the hospitality shown by the host organization.

Club des Archers de Joliette was organized by a group of dedicated sportsmen who, in surveying possible sites, hit upon an area part of which was swamp land. With courage and energy, the group began its work. Diligence and money — raised in every possible way — soon began to transform the area

into a beautiful development with the atmosphere of a country club. Its reputation is such that archers from cities in the United States and surrounding areas in Canada journey to Joliette at least once during the shooting season to enjoy its many facilities and to participate against the top archers of Canada.

With the Joliette Club serving as host for the Canadian Nationals, the event was just what the doctor ordered for archers of the provinces of Canada.

From all points, including Halifax, Toronto, Quebec, Edmonton, Winnipeg, Vancouver, Brantford, Calgary, North Bay, they came, loaded with equipment, to test their

skills with man's oldest guided missile.

The tournament was well managed, even if the weather didn't co-operate one hundred percent (it rained intermittently), and it was obvious that Georges Rondeau, president of the club, and his assistants had planned many months for the event. The detailed planning that went into it was astonishing to participants and guests. Registration was smoothly accomplished; motel and hotel accommodations were arranged; badges, plaques, tickets to local events were available; printed schedules — everything was on hand, to be utilized quickly by all.

The hospitality, the desire to

have everyone know everyone else quickly was manifest. For instance, contestants, directors, officials, service workers, press, radio and television individuals all were properly identified by special badges. The host club went all out to introduce contestants to one another. The entire tournament became, within a short time, as one observer put it: "A big family unit."

The opening, at 4:30 p.m. on a Tuesday, was made "official" with comments by the Honorable Lionel Bertrand, Tourist, Fish and Game Minister. At 5 p.m., a civic reception was offered by the mayor of the City of Joliette; at 8:30 p.m., a friendship hour and dance were held at the club at no cost to contestants.

Next day, they were taken on a guided tour of Joliette, and at night

had a choice of dancing or attending the theater! Every night there was dancing. There were parties with folk singers, more guided tours and for the women on Saturday there was a lecture on Health and Beauty by a beautician of the L'Institut de Beaute Line Enrg. On Sunday, when the champs were proclaimed and the big trophies awarded, special guests were on hand to congratulate the winners — including the Honorable Antonio Barrette, Canadian Ambassador to Greece and members of the honorary committee of the Canadian Championships. It was a week no one will forget. And, we might add, there are many clubs that well might emulate the methods used.

Tone, who finished high school only last year, attends Shaw Business School in Toronto. While he

has proved his target ability, his hunting prowess with big game is yet to be tested, since so far he's shot only small game.

His selection of equipment is carefully made, one of the true marks of a champion's preparation for the big time. He uses a thirty-seven-pound, sixty-six-inch *Star-flight* bow manufactured by the Tillmark Archery Company of Newmarket, Ontario, and his arrows are 1916 Easton thirty-inchers, plastic fletched. His quiver is a Tillmark with his arm guard from the same company. He uses a Wilson tab.

As in any sport, youth reflects flexibility in thought and action. Tone, in winning, astonished quite a few onlookers with his stabilizers, two metal fruit juice cans, fastened securely to the bow's limbs — each

three-quarters filled with water. There may have been raised eyebrows and questions as to the advisability of such, but it all vanished when the first few arrows left Tone's bow. He shot steadily, smoothly, with utter concentration.

The writer used the club facilities and shot several targets with Tone. As a member of the Professional Archers' Association, I was thoroughly impressed by the bespectacled youth. His personality matches his ability; he is pleasant, unassuming and friendly.

Dick is no stranger to victories, despite his youth. He won the Ontario championships, junior division, in 1960, 1961 and 1963. He won the men's Ontario target championship this year; he took the junior target championship of Canada in 1961 and in winning his

most recent shoot, he set a new record in the Canadian round — 950. The former top mark was 893. And he missed setting a new FITA round record by only one point; his mark was 1033, while the top mark this year was 1034!

Faced with years of competition ahead, Tone staunchly says he's hoping for 1100 in the future, and he may do just that, for in a practice round a week before the Nationals, he shot a 1074.

What's his opinion of a Canadian-American competition?

The young man said in his slow, thoughtful tone: "I believe it would greatly benefit the sport and certainly anything that brings an international flavor to a competition results in greater friendships between these nations. I'm all for it."

Dick is a "future planner." He'd

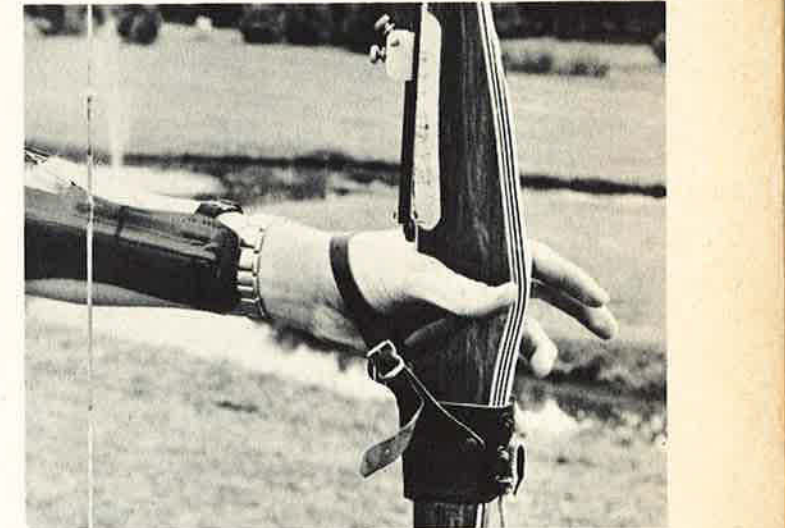
(Continued on page 54)



The sight which Tone used to win the Canadian title is easily adjustable for windage, elevation, uses a pin.

Line drawing of Tone's stance at left reflects the form he has developed to become a winner. (Below) Note that his grip on bow handle is relaxed; hardly a grip at all, as release is made. (Bottom) Tone uses a Tillmark quiver of Canadian manufacture, as is the bow he favors.

A group such as this in the gold center is sufficient to cause any shooter to smile, but inasmuch as it helped Joan Gallie to win the Canadian crown, her reason's tops.



Training Of
Youthful Bowmen
May Mean
The Future
For Archery
In The Islands!

Hawaii's Mr. Archery

By Jack Lewis

A young Hawaiian lad stood at the edge of the range utilized by the Diamond Head Archery Club in Honolulu, one hand tucked inside of his shirt. He was alone, obviously lonely, as other children learned the basics of archery from adult members.

Arthur C. Lee, better known in Island archery circles simply as Chuck Lee, approached the child and asked whether he would like to try his hand at shooting. It was a poor choice of words.

"I can't," the boy replied simply. He withdrew the hidden hand and displayed it for Lee. He apparently had been born with only the stumps of fingers, hardly adequate for holding a bowstring at full draw.

However, this didn't deter Lee, who is recognized as Mr. Archery in Hawaii. In his spare moments, he fitted the lad for a specially designed glove with stiff fingers. This was strapped to the unformed hand and the boy began to shoot, awkwardly at first, but as he gained skill and confidence, he developed an unusual form that soon made him a winner among the other youngsters. More important, he soon was associating with those his own age, and he no longer tried to hide the deformed hand. It was not long, according to Lee, before he was even challenging adults and winning his share.

This is only one of the programs conducted by Lee and his associates in the Diamond Head Archery Club, who literally shoot in the shadow of the famed Island landmark. There have been numerous other



Above: Chuck Lee is widely recognized as one of Hawaii's greatest bowhunters, having taken three record sheep in a single day. (Left) A great share of his spare time is devoted to teaching youngsters the bow and arrow arts.

When Lee and other members of the Diamond Head Archery Club aided this blind lad to learn archery, a special stand was built to help the boy in developing his stance and form.

examples wherein the members have taught the bow and arrow arts to other handicapped children over the fourteen or so years since Lee organized the club.

In one instance, a five-year-old whose bones were so brittle that he was required to wear leg braces and use crutches wanted to learn to shoot. A special brace was developed for him whereby he could rest most of his weight on this while drawing the arrow.

Impossible as it may seem, club members also taught a blind lad to shoot, directing his shots toward sounds rather than the target he normally would see. This required a good deal of engineering skill in that a special rack was built to hold the boy's arm in the correct position.

However, it should be pointed out that such projects as these have been the work of a few rather than many. While the Diamond Head carries some 785 members on its rolls at this time, Lee admits that there are no more than thirty usually who show up for the club's shoots.

Lee and a few archery enthusiasts organized the club in 1950 and it has made broad strides since then. However, he was not new to the sport at that time. Chuck Lee launched his first arrow in 1937, when a friend invited him to a shoot. The friend neglected to tell him how to shoot or to offer any instruction.

"As a result," Lee recalls, "I lost a lot of face. In fact, I was something of a laughing stock."

His Chinese-Hawaiian dignity injured, the follow-



There have been many youth groups which the members of the Hawaiian archery club have helped to train in archery, ranging from Boy Scouts to girls of Catholic school.



ing day, he made for a Honolulu sporting goods store, where he purchased a bow and arrows of his own and began to practice. Soon he was not only a more than adequate target shooter, but had developed reknown in the islands as a bowhunter. A few years ago, hunting on the Big Island of Hawaii, he took three record class sheep in a single day.

Now a grandfather several times over, Lee has developed a shooting family. Both of his sons, members of the Diamond Head club, are well recognized as bowhunters. Their wives also shoot. As for his grandchildren, Jeff Lee, only five, won the junior division of the club's annual bowfishing tournament in 1964, which was held at Hanaama Bay. Another grandson, four years old, already is learning which end of a bow is which, and a third, only two years old,

At less than three years of age, Honolulu's Glen Inouye had learned the rudiments of archery and was competing, a quiver over his shoulder that was almost as large as he.



Chuck Lee and former Hawaiian Governor William Quinn discussed the development of areas in the islands to be devoted only to bowhunting. Meet was during Quinn's tenure.



Pan American Clipper jet flies over island terrain that is typical of that which bowhunters must brave. Author had a look at this scenery in arriving in Honolulu to seek out Mr. Archery. (Below) And once one is in Hawaii, if he chooses to hunt the other islands, virtually the only means of fast transportation is via local airlines.



A Sunday afternoon shoot in Honolulu, with palm trees as a background can find a variety of costumes, not to mention a polyglot of races, as shooters seek honors.

has a little time to go, since Grandfather Lee is against a child teething on anything so valuable as a bow!

Leaders in the club have gone a long way in their decade and a half to have archery recognized as a sport in Hawaii; however, they have faced one problem in the matter of competition. This is not in regard to competition among archers, but from other sports. As Lee points out, "Almost any sport one cares to try is available here in Hawaii. As a result, most archers are engaged in several other types of sports, too, and don't put in the amount of practice that could make them champions."

The club uses as its shooting range the targets set up in Kapiolani Park, only an arrow's flight from Waikiki Beach. This range is under the control and direction of the City and County of Honolulu's recreation division. It is here that the formal target shoots are conducted, and on the third Sunday of every month, the members shoot an American round.

Some twenty miles away, in another recreation area adjoining Hanaama Bay, is a field-type obstacle course, which was laid out by Chuck Lee and built by members of the club.

Soon after arriving in Honolulu via Pan American Airlines, I found myself working up a sweat with Lee, walking over the course. In spite of recent problems which will be explained, the course still is the most challenging I have ever seen. It is arranged so that one must shoot over the tops of stumps, bypass overhanging branches and shoot through thick brush in order to score on the targets. As backstops, earth has been scooped up into low embankments, and every effort has been made to design the course under actual hunting conditions. Also, there is a nearly constant wind whipping in off the adjoining bay, which can bend an arrow off its planned course unless the archer makes proper allowances.

It took the members of the Diamond Head Archery Club some two years to develop this course, taking care in cutting away the underbrush so that there would be the planned obstacles.

It took representatives of the National Field Arch-

ery Association something like two days to change all that. After obtaining permission to hold a shoot on these grounds, NFAA reps went in with machetes to cut away the obstructing foliage, removing the stumps... and even changing the direction of arrow flight in at least one instance. It is estimated that it will now take several years before the underbrush returns to a state where the obstacle aspects of the course may again be renewed.

Members of the Diamond Head Archery Club have been instrumental, too, in starting clubs on other of the islands, and have been largely responsible for the

This youngster is another of the handicapped children, which members of the club have taught to shoot in spite of their problems. Note the brace held under left arm.



Smithwick Citation



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introduction of laws covering bowhunting. From statistics furnished by the archers, themselves, the State's program of tag fees and types of game requiring tags has been developed.

One requirement which may not receive approval of some readers has to do with the necessary test to obtain a bowhunting license. Under the supervision of the club, such applicants must show that they can achieve twenty-two inches of penetration, using a forty-five pound bow and shooting into a sandbag. In the early fall, as hunting season approaches, there often are hundreds of wouldbe hunters standing in line, to prove that a sandbag is no match for their prowess.

In competition shooting, the Hawaiians compete by rules, too, that would cause some of the more rule-bound officials of the NAA and NFAA to raise their eyebrows. To start with, there are no classes for the various competitors. All archers, regardless of whether they be barebow or sight shooters, are lumped together and compete against each other.

"We ask people to shoot however they can do the best," Lee explains. "By mixing up the classes — or what would be classes if we had such — nobody is fearful of shooting against someone else."

But it is in the younger generation that Lee and others of the club see the future of archery in Hawaii. Over the past dozen or so years, they have taught



Hawaiian archers live in a hunter's paradise, although the area is only now becoming known. There are archery seasons for various game on virtually all of the islands.



Boy Scouts, Girl Scouts, entire school classes — and even some Catholic nuns — to shoot.

It is not unusual to see children of three and four years of age on the line at some of the practice shoots. It is here that the Hawaiian archers shine, showing ultimate patience and good humor as they teach the rudiments.

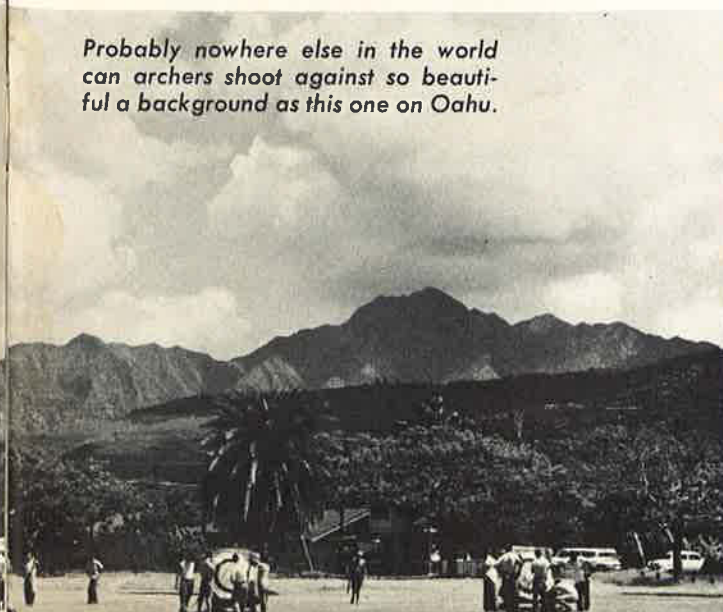
More than a decade ago, when the range was opened in Kapiolani Park, Chuck Lee was asked to oversee its operation until such time as a caretaker and coach could be found to handle the chores. Today, Lee is still unofficially in charge of the range. Although he is an employee of the City and County of Honolulu, he draws no extra pay for his work, much of which is accomplished on weekends.

That is dedication, indeed. ●



Ardently interested in archery is Hal Lewis, Hawaii's leading entertainment personality, who is better known as J. Akuhead Pupuli. He is standing at right.

Probably nowhere else in the world can archers shoot against so beautiful a background as this one on Oahu.



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FABULOUS FISTFUL

Draw weight of the *Fist-Flite* tested by Cathy Clark had draw of 32 pounds.

THERE was this young man who walked into the BOW & ARROW editorial offices with a device that looked like a cross between a sling shot and a stethoscope in his hand. But he had an arrow in the other hand, which led us to believe he might possibly be in the right office after all.

There's always the direct approach. "What is it? A sling shot or a stethoscope?"

If he was insulted he didn't show it. "It's surprising," he admitted, "how many people think that at first glance. But this is a *Fist-Flite*."

"What is a *Fist-Flite*?"

"Well, you might call it a compact bow," he explained, then went on to say that he was Bill Spatari, the inventor, and he'd like to have us try it. We insisted that first, we'd have to know how it works, so we repaired to the nearest vacant lot, where he

showed us that it was a sort of sling shot, utilizing a stainless steel frame and surgical rubber tubing. In his able hands, he would draw the arrow to a full twenty-eight inches, anchoring against his chest rather than his cheek and let fly.

"Want to try it?" he asked and we backed off. We weren't about to show our inefficiency in the middle of a vacant lot for everyone to see.

"We'll have our girl try it out," we promised. "She used to be a professional archer."

Returning to the office with this shooting machine in hand, we turned it over to Cathy Clark, the organization's Girl Monday-through-Friday.

"Work a little this weekend," we ordered. "Try this out and report back."

"But I don't know anything about stethoscopes," she complained.



IT MAY LOOK
LIKE A
PHYSICIAN'S
NIGHTMARE,
BUT IT SHOOTS
WITH POWER
AND ACCURACY!



Arrow is nocked on straight steel rod inserted between protective bits of rubber. Note padded wrist brace.

This device calls for instinctive shooting, as it is best to hold draw at shoulder instead of eye level.



"This is a *Fist-Flite*," we explained rather pointedly. "It is a new, radical departure from conventional arrow launching methods."

"My, isn't our language getting technical," she said as she gingerly accepted the mass of steel and rubber.

On Sunday, Mrs. Clark and husband, Dennis, made for the nearby Pomona Valley Bowhunters range, where they tried target shooting at ranges of twenty and twenty-five yards. Shooting from the hip, so to speak, the male member of the family did well, since he has always been an instinctive shooter. It took Cathy half an hour or so to get onto the potential of the *FF* and start putting arrows in the gold.

The pair then tried the club's roving range, where Dennis insisted the *FF* would not send an arrow eighty yards. Cathy was the first to try and dropped a few inches under the gold. However, when her hus-

band tried, he overshot the target completely and they wasted half an hour looking for the shaft.

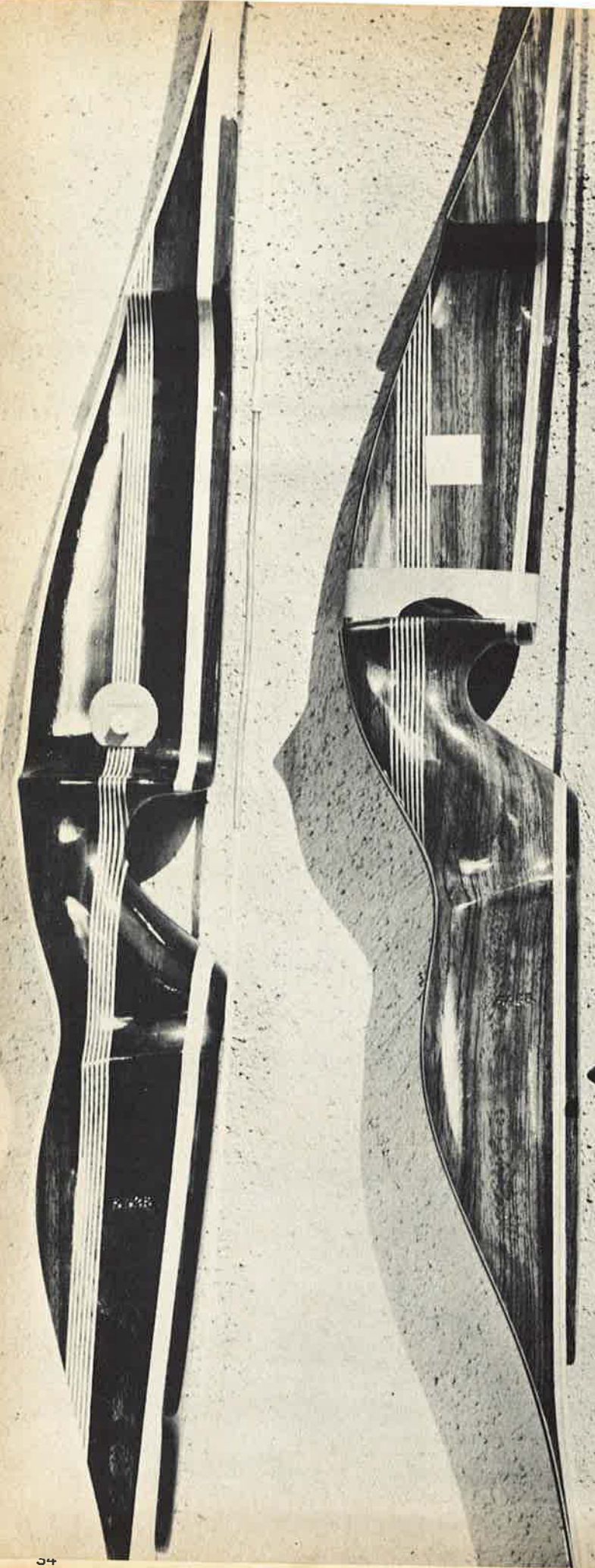
Then they went squirrel hunting, but only saw two of them high in a tree and some twenty-five yards away. Mrs. Clark missed the tree, but her husband came within six inches of his target. Only problem was that the arrow stuck into the tree and at best, he's no Tarzan. He left the shaft there rather than break his neck climbing for it.

"It's like a bow," Cathy Clark declared upon her return to the office on Monday. "It's an instrument one has to come to know, then develop the potential." Then fingering the *Fist-Flite* a bit wistfully, she asked, "What does it sell for?"

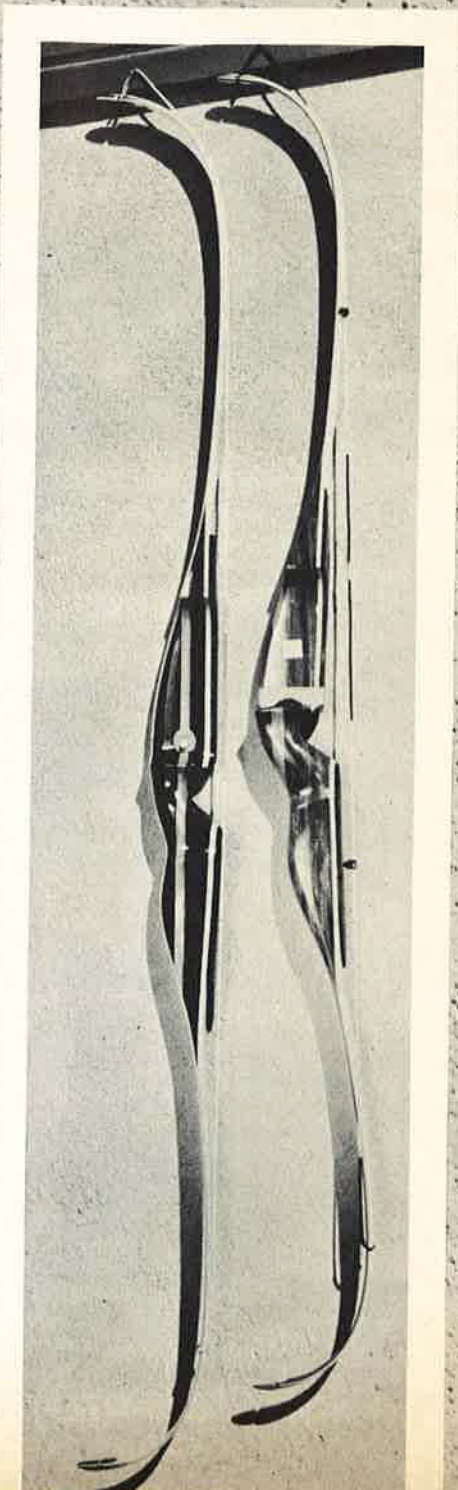
"An even twenty dollars," she was told.

"Good price for a stethoscope," she agreed.

—Martin Haynes.



**BOW &
ARROW
TEST**



EACH year the coming of the archery deer season places great strain on the thinking powers of my hunting comrades and myself as to where to go and for what to go. You can see right off that if we had two Septembers our problems would be immediately cut in half. Eventually it was decided we would go to the Kaibab area in Northern Arizona a few miles below the Utah border. Known as Kaibab North, it lies on the north rim of the Grand Canyon, a vast plateau of 724,000 acres. It hosts one of the largest deer herds in the country and is known for the record class heads that make a man's knees tremble in anticipation. I've been anticipating for so many seasons now, though, that my knees no longer tremble. I just stumble along to miss the trophies and knock off the meat deer and zilch scorers. I could add up over twenty-five bow-killed bucks and still come up with an aggregate score that would miss the Pope & Young minimum. Some of us apparently are not meant to be champs.

Rather than torment myself with the notion that I was going over to slay a 135 point minimum buck, I rationalized that the whole episode was to be in the interest of another field test for BOW & ARROW, and therefore in the interest of good reporting and not bowhunting laurels.

Our selection for this test was to be different than those past in that it was not to be a bow by a larger manufacturer. The bows are the *Citation* and *Citation Hunter* designed and produced by Tom Jennings. Tom

MEDALS FOR THE CITATIONS

Long Bow Hunting Is Frowned Upon
By Some, But This Deer Downer
Found The Length Preferred!
By Jim Dougherty



Prior to beginning the serious hunt for venison, the band of bowhunters, checked their bows and their estimates of range by going in for afternoon session of stumpshooting.

At left is Smithwick Citation designed primarily for target shooting, while shorter bow is the recently introduced Hunter model. Author found he preferred former style.



Also testing a Citation for this story was Ron Holdstock, who managed a fatal arrow for this antlered buck. He is an experienced deer hunter, familiar with Kaibab area.

has been making custom bows in his North Hollywood shop for at least ten years and has achieved quite a reputation as a master bowyer. With expert archers behind them, his bows have captured their fair share of titles. This is testimony to the fact that good equipment shoots where you point it — which brings us back to my problem.

The *Citation* is largely thought of by most archers as a tournament bow, proof I suppose to the fallacy that hunting bows have to be short. This, I may point out, is pure garbage. A hunting bow has to shoot hunting weight arrows hard and fast and the guy behind it has to point it right. It does not make much difference how long the bow is, except under certain rare conditions.

In keeping a chart on the wall for eight years at the Kittredge Bow Hut throughout the entire season, I have noted that less than forty percent of the bows used to make big game kills have been under sixty-two inches. The *Citation* comes in 66 and 68-inch lengths and the newer *Hunter* model comes in 62 inches. I secretly suspect that Tom, himself, will admit that the *Hunter* is a concession to the short bow image.

I am not knocking short bows and many of them shoot better than I will ever be able to show. But I get pretty sick of the "I want a bow to go through the brush with . . . no longer than sixty inches."

There are sure a lot of guys going through the brush for weekend walks. If they would spend less time fighting through the stuff and sit in a clearing or hunt the edges, they would get more shoot-

Dougherty, still clutching his *Citation* bow, looks over the doe, which he downed in the Arizona-Utah border area. He found he preferred longer model bow for deer hunting.



ing and possibly find the longer bows work pretty well. There are none of them you can shoot in a closet.

Designs of the shorter bows have improved greatly in the last three years. Prior to that time, I wouldn't have given you a nickel for any of them under sixty inches. As stated in past field tests, too, the shorter bows generally are harder to shoot and not as fast as their longer brothers.

Tom Jennings made me up a sixty-two-inch *Hunter* of fifty pounds at twenty-eight inches draw and I also acquired a sixty-six-inch *Citation* in the same weight and draw combo. My buddy, Ron Holdstock, had its twin with a slight modification. The sight window is on the other side; no oversight, as he's left-handed. We added Holt Dandridge to the testing staff with his *Citation* of earlier vintage for comparison — plus the fact that he insisted on going along. We had a pretty sizeable group lined up for the hunt with Holt's wife, Midge, bright-eyed and eager after her victory against goats on Catalina. My wife, Sue, had been yammering to make one of these big hunts so I figured I'd just take her along and kill that idea for future outings. John and Faith Calvert completed our safari. All we lacked was native porters in loin cloths.

With several weeks before the big hunt we set to. Practice is always an essential part of my master plan, but apparently I never get enough. I settled on Easton 2016 dural shafts for both my bows after finding that they shot perfectly and the weight of 505 grains overall was ample. Ron also chose this shaft, while Holt, shooting a two-year old model of different design, went to Micro-Flite #6 with his forty-eight pound bow.

To begin with, I was on the high anchor kick ala Lou Rangel. Every time I see someone who can shoot a bow, I get impressed. I talked this method over with Lou and it looked good. I brought my anchor point up to my eye as opposed to the corner-of-the-mouth hold I've used for thirteen years. By continued shooting with both bows, I found that I was dead on almost ten yards further with the longer sixty-six-inch model. I also believe that a bit of this can be attributed to a better, cleaner release with the longer bow which would be a personal shooting problem assuredly.

For the ranges under forty yards, the high anchor deal is a real killer as it is quite a bit like sighting down a shotgun and letting fly. This may seem elementary to some, but I imagine there are many who have not tried it and would like to know a bit about it. With practice, I learned where to hold from low under 25 yards, dead up on 35, and right above out to 45-50 yards.

At this range, I found it better to drop to the old corner of the mouth for the longer shots, a shooting method that would no doubt cause some good shots and instructors to gnash their teeth.

There was a difference of anchor points of 2 1/4 inches and at the corner of the mouth I was point on at seventy yards. Ron, who has a better release, a better bow arm and aims straight, was getting a few more yards out of his anchoring at the corner of the mouth all the time he was point on at seventy-three yards. Besides his bow arm and release, his straight aiming has been good enough to collect twelve deer in his first three years of bowhunting.

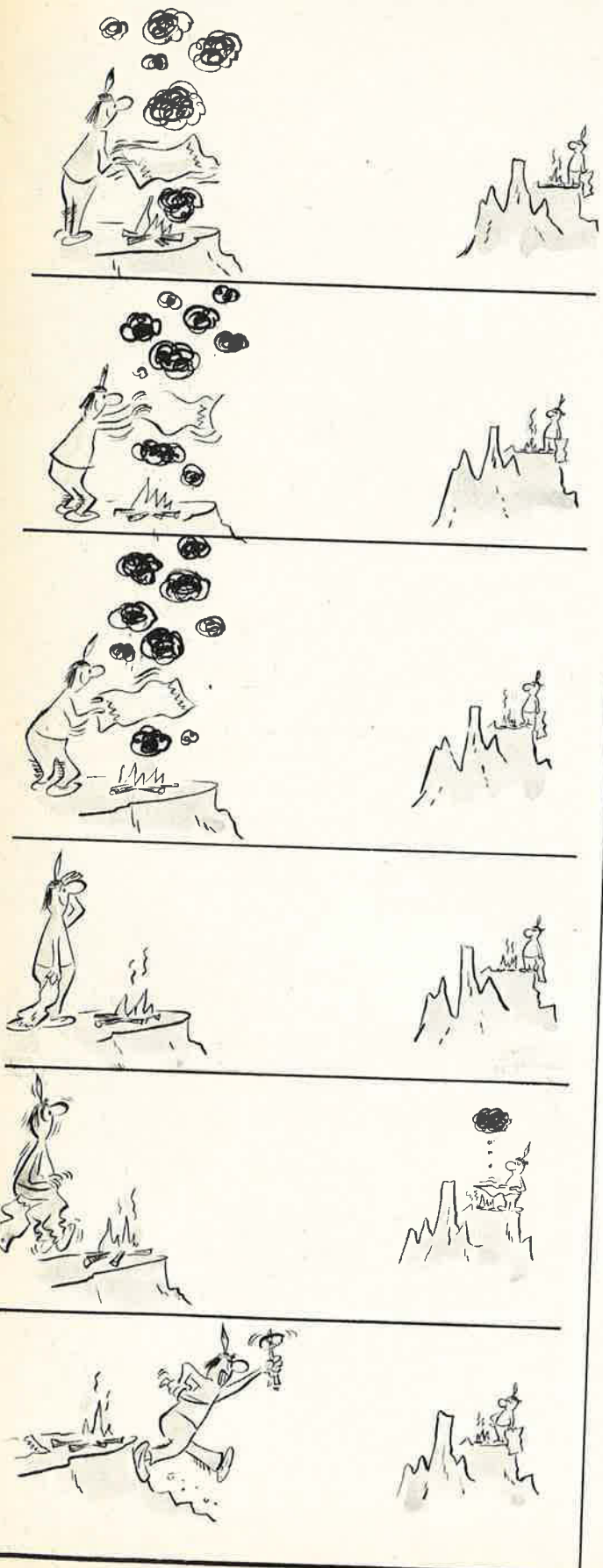
The shorter *Hunter* was a real fireball but no matter what or who, the longer bow would outshoot it by a slight margin, when it came to point on distances. Although I was quite taken by the *Hunter*, my thoughts kept drifting back to the *Citation* as the bow for me. There was no problem with stability or speed, and in the hand she was a real pleasure. This, to me, bears out the longer bow being easier to shoot theory. In comparison the *Hunter* has considerably more de-



During a lull in the hunting, Dandridge (left) and the author take time out to put an edge on their collection of broadheads. Dougherty used Easton 2016XX75 arrows.

Holt Dandridge, often a bridesmaid, et cetera, finally got his first deer, a doe. From the smile, however, it would appear that wife, Midge, placed the fatal shaft.





flex and a tight recurve radius to compensate for this. The *Citation* has almost a straight limb and a less pronounced recurve.

Jennings is the only bowmaker with whom I'm familiar that utilizes three laminations of wood in the limb. The center lamination is tapered .002 per inch, sandwiched between two parallel laminations. The entire structure is designed for better limb balance and less sensitive tips.

Being a short bow designed to function at even the longest draw lengths, the greater strength theory of the added lamination becomes even more important when the tips are considered. With such a highly pronounced recurve, most bows would be easily twisted through improper stringing or other torquing. Few if any manufacturers will use such a recurve for this reason, coupled with the fact that such a bow is a bit harder to string, but Jennings seems to have this well figured out. For those who wonder, the higher degree of recurve in the *Hunter* is necessary to rebuild the snapping power of the limbs that is sapped with the deeper deflex necessary for smoothness of draw.

Being longer, the *Citation* does not need the deflex to keep the draw smooth even out to thirty inches on the sixty-six-inch model. For the same reason, the recurve need not be as tight, as the limbs of course do not tie up as fast. I have long thought that the straighter limb bows will shoot with a bit more authority than those of a deflexed design as they have more follow through. There also is some thought that heavy, parallel laminated limbs will do this even better.

The only other big point concerns actual arrow speed. To me, if a bow will outshoot another over measured distances through repeated series of shots, it is faster. Concerning velocities and bows, some of the figures heard today are pretty ridiculous. No two people, it seems, time alike and mention is usually not made as to whether or not the readings are "muzzle" velocity or at 10 feet or 10 yards. By the same token, bow weights and arrow lengths are rarely mentioned. I think it will suffice to say that the *Citation* is as fast as any, if not faster than most. As for the *Hunter*, in its category, it will hold its own.

All of this added up to the fact that the *Citation* in sixty-six-inch length was going to be the bow to shoot on the hunt. Granted, I could shoot the shorter *Hunter* but not with the accuracy nor the pleasure of the longer stick. I took it along for a spare.

Besides being an expert bow engineer, Tom Jennings is a terrific craftsman and his bows are among the most beautiful to be found. Generally, the handles are of blended rosewoods offset with maple laminations. Glass colors vary with the individual order but white is most predominant, and, I think, the prettiest when set off by the rosewood overlay or face plate.

For the best arrow flight, the *Citation* can be nocked anyone from almost ninety degrees to one quarter inch. In the case of the *Hunter*, a higher nocking point is a must and some shooters recommend almost a full half inch. Penetration tests don't show me too much, and we decided to penetrate deer hide and see how things worked out. There was little doubt in our minds that any deer that got in the way was going to get penetrated well.

Kaibab is a wonderful place to hunt, being a broad plateau requiring a minimum of climbing and exertion, and we arrived full of high hopes for laying in a bit of meat.

With me, deer hunting takes on a serious aspect. I like to hunt for the big bucks as well as anyone, but the desire to shoot a few arrows and the idea of laying some meat on the grass eventually takes precedence. This stems from a real liking for venison, and my wife would much rather see meat in the freezer than antlers on the wall. After four days of looking for

bucks which were conspicuous by their absence, the flatheads began to look pretty choice.

For the most part, our party was interested in any deer. The girls naturally were willing to take anything, as were John and Holt, neither of whom have taken a deer with the bow. In truth, it was a meat hunt with the prospect of a trophy and added bonus.

Kaibab was not up to expectations this year: Poor weather, full moon conditions and a scattered herd. The deer were exceptionally spooky, not holding well for a stalk or shot. I had more deer jump the string in a week's hunt than I can recall in the past five seasons combined.

There came a moment, however, when one forgot to jump — until it was too late. The subject was a big dry doe, which allowed me to close to within thirty yards. As I prepared to shoot she became aware of my presence and turned to face me straight on — not a shot that I prefer.

As I drew, I was certain she would jump the string, but I held on the sticking spot at the base of the throat and released. The arrow hit right on target driving in to the feathers, with an explosive snort the deer wheeled and was gone, her progress through the timber easy to follow by the noise of her panicked flight.

At the end of the blood trail lay my wife's winter meat supply, the result of a genuine in-the-field penetration test. The arrow had plowed through two inches of heavy brisket, down the throat, into the chest cavity and severed a rib on the off side. The bow shoots hard.

Holdstock was holding out for antlers and eventually put the clincher on a forkie at forty yards. The arrow took the buck a bit high of the chest on an angle, taking a total of four ribs and the aortic artery in the process, reducing the deer to steaks and chops.

Making it a clean sweep for the *Citation*, Holt nailed his first deer a day later with a nice uphill forty yarder on another big doe. The arrow was placed a bit far back, striking the right hip and completely penetrating through the left taking a big chunk of leg bone with it. A hip shot can be a dandy and in this case with the femoral artery in both legs severed he had a quick, clean kill.

The older model *Citation* is designed with parallel limbs and a straighter design than its present counterpart. Still, it is a fast, accurate bow, being point on at 62 yards with a mouth anchor and 475 grain arrows.

In a week's hunting with the longer bows, we all found them easily maneuverable in the field. I found no situations where I felt a shorter bow would be handier, although the terrain of Kaibab is not hard hunting, as I have said. I spent some time in blinds and shot several arrows from these more cramped positions, getting them away cleanly — if you don't count missing as a problem.

In the newer models, we found the limbs to be quite noisy and Ron finally went to double string silencers, trying to beat the deer's early warning system. Holt's bow, with its different design, is not as highly stressed and much quieter.

Limb or string noise in today's bows seems to be greater than in those models of three to five years ago, due primarily to greater stress. It has long been a source of amazement to me how so little noise could panic an animal so greatly.

Either model is extremely comfortable to shoot and hold, and a form-fitting pistol grip handle adds to the lines of the bow, as well as being functional.

For those who still want a short bow in the field, the *Hunter* will handle any task to which it is put. As for the longer *Citation*, it adds up in my opinion as a perfect "all-around bow" for the man who wants his field and hunting bow all in one and expects a master's touch in design and craftsmanship. ●

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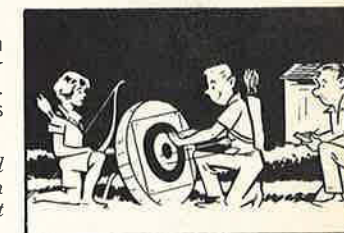
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COLUMBUS, NEBRASKA

THIS BOWHUNTER LEARNED A THREE-LEGGED ANTELOPE
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A TWO-LEGGED MAN!

Pronghorn with a stick

By Dr. D. A. Henbest

The veteran hunter and bowmaker, Ben Pearson, was the first hunter to score blood on this hunt in the wilds of New Mexico, taking his pronghorn in a matter of minutes.



"ANY of you fellows ever hunt web-footed antelope before?" Thus was our host's greeting as he walked into our tent. Antelope season was due to open in an hour and we all were disheartened, as the rain was coming down by the bucketful.

Dave Banghart and I had arrived early to set up our camp and to look over the New Mexico hunting area. We had been in high spirits till the morning of the hunt when it started raining. After seven years of drought, this had to be the year when the big dry was to be broken.

Dave and I had hunted deer and javelina together, but this was to be our first try after the pronghorns.

Our ranch host, Willis Lovelace, was trying to cheer us up in spite of the weather and we listened closely as he told us where to expect to find the antelope.

"Usually they will be out on the flats, but in weather like this you can expect to find them under a juniper tree along the edge of the timber. They hunt cover in a hard rain if it is practical."

Lovelace's hat touched the roof of the wall tent. I started to watch the drops of water as they would fall to the floor of the one dry spot in the camping area. My heart was not much for hunting now and I think I did pay more attention to the dripping water than to the words that followed.

"These antelope have not been hunted for four years. They will not spook as quickly as if they had been shot at a few times. Just take your time and try to get a good shot." Lovelace was trying to bolster our spirits, even though this was the first time for bowhunters on his ranch.

The area where we were assigned was on the western part of his huge holdings. The ranch is so large that there are twenty-eight trucks and other vehicles — along with three airplanes — that are used in the normal everyday operations. Most of the area is fairly flat and vehicles can be used in the roundup of the cattle and sheep. We were about twenty-five miles from the ranch headquarters.

Five minutes before twelve when the season opened, George Cresto, the junior member of our hunting party announced, "Rain or no rain, I came here to hunt."

Dr. Warren Bowman, who completed the foursome got up to go also as his time was extremely limited. His duties back on the Zuni Reservation Hospital demanded that he return within a day.

Rain suits were put on, then taken off. There is no comfortable way to hunt in the rain in the summer and still really keep dry. Wearing a rain suit, one will perspire and feel warm yet clammy; without, one will be soaked to the skin in seconds.

George and Warren went out right on the dot of twelve. Ten feet from the tent, they were as wet as if they had been swimming. We were not worried as to the equipment, as our bows were waxed and the fletching on our arrows had been waterproofed.

Dave and I sat in the dry confines of the tent and fumed. We thought it a waste of time to venture out in the downpour that gave no indication of quitting. We would not play cards; our equipment was all ready with the broadheads all sharpened; we had already eaten and were not hungry. There was nothing to do but sit on our camp stools and wait.

One o'clock came and went. Two o'clock was a long time in getting there. At four o'clock, it stopped raining as suddenly as it had started.

In seconds, we were out and looking for the fleet pronghorn. We believe in starting hunting from the very minute we leave our camp. It had paid off when hunting for deer.

The arroyos were full of muddy runoff, and the adobe stuck to our feet until, it seemed they weighed a ton. In view of the ranch owner's suggestion that we look in the edge of the timber, we skirted the juniper and cedar areas. We even walked over in the blackjack thickets, saw nothing except other archers' tracks.

Returning to the tent about dark, everyone was asking, "What did you see?" George Cresto had shot a porcupine that was ringing a pine tree. Orville Woodrich of Albuquerque had shot a porcupine also and had seen a mountain lion, but it was too far away

for a shot. Warren Bowman had seen two antelope but he was not in position to shoot when the fleet-feet had run over a ridge and out of sight.

To create no more confusion than necessary, we all had camped in an area of about two acres. That evening, there was much tracking back and forth between the tents in search of information on how to hunt the fast running game. No one could give much help.

"It's daylight. Time to be up and at 'em. No rest for the wicked!" The sun was making the area light and everyone's spirits were high.

We thought the pronghorns would be out in the flats but to our surprise they were back in the timber. One or two of the hunters got shots at the desired game but nothing was even hit.

In three days of hard hunting, no one had connected. That night, J. R. McDaniels of Espanola, New Mexico, brought in a five-foot coon tail rattler. Out here some of us call these big snakes coon tails for the last five or six inches of the rattles is striped just like a coon's. This particular snake had advertised his presence to the bowhunter by coiling on a rock and rattling even though McDaniels was still about twenty feet away. One arrow right through the head was enough to still the dangerous reptile.

Sixty hunters had turned out for the hunt but after

The author, Dr. Dean Henbest, inspects the broadhead with which he downed this buck antelope. Upon measurement, it was found to be top rack of particular season.





Another bowhunt in New Mexico, produced these trophies for the bowhunters. Representatives of the state's Fish and Game Dept. observed the conduct of the hunters.

four days, all but thirteen had to return to work. Those remaining were not in high spirits as still no antelope had been brought in.

The last day of the hunt we moved over to the main ranch with the permission of the landowner and the Department of Game and Fish.

Since the ranch was well fenced with woven wire, the antelope would stay in one pasture until they happened to find a gate that had been left open. Antelope will not jump a fence as will a deer. We talked it over and decided that Indian strategy was the order of the day. Some would try to keep the pronghorns moving, while the others would hide in draws and behind small bushes.

Just before noon, I saw Dave Banghart pull his arrow to full draw then let it down easy. Just as he had started to release his arrow, the buck antelope had dropped right in front of him. Unknown to him, the buck had just been shot by Ben Pearson of Pine Bluff, Arkansas, and this arrow through the heart downed the first game.

All of us went over to get a close look at the buck, a beauty, then we went out again to try our luck. Two bucks had come along and after Pearson shot one of these, the other, confused, returned at a run.

I saw him coming and it appeared he was about to run over me but about thirty yards away he broke at right angles and I led him plenty, as I let fly. *Ker-thunk* went the arrow. I was too pleased with the shot to say much, but watched the buck go over a ridge.

Going over to get my arrow — or what was left of it — I saw J. C. Posey of Artesia, New Mexico, come crawling out of a juniper bush. He was grinning like the cat that ate the mouse. He had shot, also. His arrow was found and it was bloody from nock to point. My arrow was just broken. No blood. It was his arrow I heard instead of mine. Two bucks down and still none for me.

A fifty-six section pasture held more antelope so

we tried our luck there the last afternoon of the hunt. So far, I had shot once and missed once in five days of hunting. Tactics must be changed or no meat in the pot.

A small juniper bush less than waist high was in a shallow saddle between two ridges. I walked over and found fresh tracks all around the juniper. I took out my monocular, cut from a pair of broken binoculars, and started looking for the telltale white rump patch. No movement, no nothing.

Then suddenly movement on a ridge a quarter mile away attracted my attention. It was antelope and they were feeding my way. Even though I was camouflaged, I froze and made no motion until the heads went down.

I saw a pair of horns move. Then they were lowered for a few seconds then up they went again. A doe was leading the herd which numbered about thirty-five. They would feed one way, then another, zig-zagging back and forth. One big buck seemed to be the granddaddy, as he was much larger than the others. His face was black and he appeared huge.

I had put arrows on the ground all around the small juniper bush so I could get them in a hurry if I had to move around the bush. I would get buck fever, then relax, as the antelope would appear to move away from my position. They would then head back toward me. I could not move, for there was always a few heads up, watching. I was afraid they would see movement even though I was completely camouflaged — even to my face and hands.

I was just about ready to shoot, as antelope were all around on three sides, when suddenly all heads went up and looked at the horizon. Without thinking I, too, looked and saw the flash of a windshield from a ranch vehicle.

As if one, the herd broke into a trot. One shaft at the monster buck went over his back. No buck fever now but I did the usual; I just shot too high. At the twang of the string, all the animals were in full flight toward a ravine just back of me. Another arrow was too high over the granddaddy's back.



Author's antelope, placing in the record books, was taken with this bow, but first shot was in the leg and he followed the animal for miles before a killing shot.

I've practiced by the hour at getting off three shots in a hurry with my archery equipment, and my third arrow hit the buck before he was eighty yards away. He side-stepped like a broken field football carrier. I could see the animals running for about three miles, and my buck was dropping behind.

I walked over to my last arrow and on my three-bladed broadhead was one drop of blood. A leg hit, I figured.

The New Mexico Department of Game and Fish had sent four conservation officers to observe this hunt, as at that time, bowhunting was still new in the antelope field. Unknown to me, a member of the department had driven to an overlooking hill and had seen the animals break into a run and the buck start to drop back. Not until I moved from my cover did he see me. He came over and asked, "where did you hit him?"

"I think in the leg," was my hurried answer. I was getting ready to go after him.

"Jump in the car and I'll save you some walking."

My buck was hardly bleeding and was going along in good shape. George Hanson, one of the best trackers with the Game and Fish Department, found one drop of blood in an arroyo where the herd had passed. He knew one had been hit and was looking over the slopes as I came up.

"Over there," he said, as I started looking through my monocular. He had seen my game with his unaided eye even before I saw it with my artificial long eye.

We tried to get close to the buck but he saw us coming and started running as if nothing had happened to him. He was joined by three other bucks, any of which would have been desirable but still not as large as the one I was after. Suddenly panic overtook my chased animal. He tried to change directions and took a nose dive.

"His leg broke, go get him," yelled Hanson

I found out one thing that day. An antelope on three legs can outrun a man on two legs. Believe me, they can. I could not have gotten very close, except



First kill of the hunt — although not planned that way — was this rattlesnake. This type of reptile is referred to as a coon rattler because of the striped tail.

that the buck — instead of trying to get straight from me — kept going from one side to another.

I have hunted deer so much that I might say I do not get buck fever, but this was something new to me. When I did manage to get close enough, I was shaking so much I could not even hit the ground with my hat. I shot one arrow after another at that buck but came nowhere close.

I had one arrow left, when Hanson came up and took my one last arrow. He was laughing at my buck fever. "I won't let you have this arrow 'till you calm down," he laughed.

I managed to get close enough to put that last shaft right through the boiler room. The broadhead went into his flank, through his heart, then out by the shoulder. He dropped as if poleaxed.

That night as we gathered around the ranch house to thank our host for the hunt, the fellows from the Game and Fish Department, who had come to observe our hunt, measured the horns of my buck, then they whistled.

"That ought to be officially measured by a Boone and Crockett man to see how it ranks in the book," said Bill Humphries, one of the officers.

Dry ice was packed around the head, when I took it into Phoenix to Jeff Seivers, my taxidermist. I did not want to chance a slip in skinning out the head, so I wanted him to do the work.

After mounting was complete, the head was measured by Bob Householder, the official Boone and Crockett representative in Phoenix.

The official measurement was then sent to the National Field Archery Hunting Activities Committee for recording. After a seemingly long waiting period came the reply. Number one taken with bow and arrow for that season.

The mounted head hangs along with the recognition plaque in my office where it can be seen by everyone. Naturally, I have to brag a little, but once in awhile get the wind taken from my sails, as some non-hunter will say, "Oh, what a pretty deer."

TACKLE TIPS (Continued from page 8)

Nevertheless we proceeded to check her every secret. Not being a center shot bow presented somewhat of a problem. It was difficult to get our test arrow to fly straight enough at a short distance to break both timing tapes clearly. With much sweating (out in the sun on a one hundred-degree day), we were able to record five good clean tape breaks. The timer was designed to record five good clean tape breaks. The timer was designed to time bullets and it's a little difficult to make an arrow hit both tapes dead center, especially with old Betsy not seeming to want to have us get the lowdown on her. In her day, the only thing ever said about performance was an occasional mumbled reference like, "hard shooting old stick," "she sure will throw a heavy broadhead," or some other casual and unscientific reference to performance.

We were only timing over a distance of eighteen inches and to give an accurate time we averaged the five good checks. The average was a hair better than 115 feet per second. Even without air drag loss of velocity, it would take almost three seconds to get to the target from the first position in the York round.

The center shot composite was a little easier, and using the same arrow, we quickly recorded five good ones. The average was just under 181 feet per second. It's easy to see this is a far greater increase in velocity than the draw force curve would indicate.

The better draw force curve is mostly achieved by the recurves but the greatest improvement in performance, as proved in our velocity test, is achieved through better recovery of the stored energy. This better recovery is due mainly to the improved materials in today's bows. Improved materials have allowed the bowyer to redesign the cross section of the limbs, limb shape, running stresses far beyond the limit of the self wood bow. Thinner cross sections in the limbs cut internal friction (hysteresis) to a minimum. I will

never forget the first glass-faced and backed bow I shot. The arrow went so far over the bale I thought it would go into orbit.

Glass facing and backing have been in common use by bowyers for about fifteen years. Nearly every conceivable limb design and shape have been tried and tested. Today, regardless of length, almost all bows of good quality will shoot within ten feet per second of each other. The main difference between top quality bows today is in smoothness of draw and smoothness of shooting.

Bowyers have gone to great lengths to design a handle that will absorb as much of the limb shock as possible. This accounts for most of the wild handle shapes so prevalent on today's bows. Pistol grips, straight wrist grips, etc. have come in for more attention from the designers. The archer today more or less takes speed for granted. He does not realize the great difference there was in this department twenty years ago.

What good is all this to the average archer? Knowing your bow; what it is capable of; what it should do, is of great value when selecting and buying equipment. Any serious gun shooter can reel off velocity, bullet weight, foot pounds of energy, for hours about his favorite gun. How many archers do you know who can give the same information about their pet bow?

True, a lot of this information is not available to the archer. However, if the archer will continue to demand more true technical knowledge, the manufacturers will be forced to supply it. Many people will argue that all this technical jazz will take the romance out of archery. Don't you believe it! Improving the breed never took anything away from the thrill of a horse race. Improving the performance of the bow will never take away from the thrill of a feathered shaft on its way to a game kill, or the dead center of a target. ●



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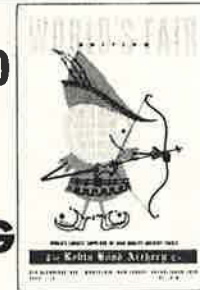
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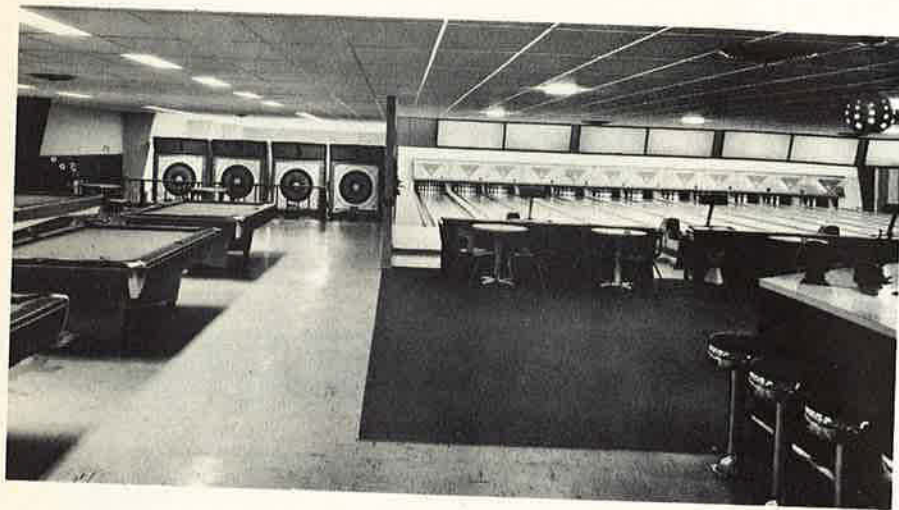
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BOW BITS



NO ELK IN SIGHT

The new look in archery lanes — several activities under a single roof — is incorporated in the Elkhorn Lanes in Elkhorn, Nebraska.

Operated by Howard Sachs with the idea of family recreation, the installation features four, fully automated archery lanes, a dozen bowling lanes and six billiard tables. The archery lanes feature the Saunders Electronamatts, designed and built by the Saunders Engineering Company. The Electronamatt returns the target to the archer at the press of a button. Complete archery rental equipment is available and instructors are available.



HUNTER'S DREAM

This portable tree stand for deer hunters was designed for and by bowhunters and was tested in actual hunting over a four-year period. Four deer and a boar were taken in one season from the single stand pictured.

The stands are built to be squeakless and are of strong but lightweight all-steel construction. Each stand comes with complete instructions and suggestions as to how to be a more effective bowhunter. It is priced at \$11.95 and is available from the Dan Quillan Company, (Dept. BA), 483 W. Cloverhurst Avenue, Athens, Ga.



KILL POWER

If you've ever wondered just how much lethal power a hunting head has when it slams into a target, Doc Schwarz up in Fulda, Minnesota, probably has come up with some answers to interest you. In a recent test, an Ace Express hunting head achieved complete penetration through a piece of 3/16-inch channel iron.

This Ace head was shot from a sixty-pound bow at a range of eighteen yards. The broadhead knifed through the metal and when removed appeared to have suffered no damage.

Ace Broadheads are manufactured by Schwarz Manufacturing and Archery Company, in Fulda, Minnesota. If you want more information, write them.

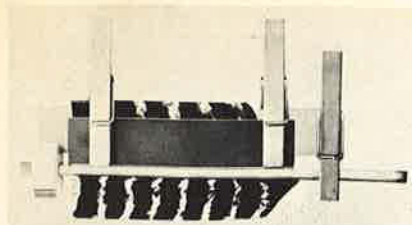


SHAKESPEARE ACTOR

Dick Wilson of the Shakespeare Company in Kalamazoo, Michigan, explained the points of bowhunting to a widespread television audience, when he appeared on Mort Neff's *Michigan Outdoors* show.

During the show, Wilson explained hunting seasons, the importance of camouflage to the bowhunter, methods of stalking your deer, and offered other hints for woodcraft success.

Wilson also displayed Shakespeare's new *Necedah* hunting bow. Fifty-five inches in length, it is of laminated woods and fiberglass.



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Now that title is a play on words if we ever heard one, but that's the official name of this new concept in fletching and repairing arrows.

The mechanism fletches any size shaft, straight or tapered, up to 11/32 inches, and takes feathers up to a full five inches. It also puts the feathers on the shaft either angled or straight, and the maker, Ed Sisty — that's where the *Sistimatic* comes in, see — says there are no working parts to get out of order, but you must specify whether you want a left or right wing model, and it's doubtful that he's referring to politics.

He says that the jig is made of the highest quality wood and cork for the correct cushioning action. Price is \$2, and you can order from Ed Sisty at 400 East Fiftieth Street, New York, 22, New York.



TOURNAMENT QUIVER

The new S-1 Tournament Quiver being introduced by The Kolpin lads has, they tell us, been functionally designed with smart classic styling, plus important new features. However, they have neglected to tell us the price. This, it seems to us, is a sneaky way of getting you to write for what is described as "a complete line of accessories for the archer illustrated in their big, full color sporting goods catalog." So maybe you'd better check this out for the price of a postcard. All you have to do to get this catalog is write to Kolpin Brothers Company, (Dept. BA), Berlin, Wisconsin.



The "LITTLE BEAUTY" Ring

MERRILL'S MARAUDERS

Don Merrill has developed a set of seven hooded sight rings that should fill about any need. He has worked on the principle that no one type of ring will satisfy every archer and that every shooter experiments for improvement. As a result, you have your choice. For instance, there is Merrill's pride and joy, *The Little Beauty*, which he

considers the most versatile, since it can be filed to any shape.

There are three sizes of pin-dot sight rings, and three sizes of peep sights with apertures of one-eighth, three-sixteenths and nine-thirty seconds inches.

The rings are priced at a buck each, or you can order all seven for \$6.50 from Merrill Bow Sights, Dept. BA, 6526 Dudley Avenue North, Minneapolis 27, Minnesota.



ANCHOR LOCK

Ever hear of a man who shot with his teeth? Well, it hasn't come to that yet, but it probably will if the Martinelle Anchor Lock catches on.

This is a new item, of molded plastic which is supposed to eliminate problems of the string-drawing hand and allow all concentration to be centered on the bowhand.

The anchor lock is held between the teeth and clamped against the teeth by the lips to provide a rigid stop slot into which the bowstring is drawn. This slot is so located that each arrow is launched from a fixed position with little possibility of misalignment due to lateral or vertical movement of the drawing hand.

The manufacturer insists that the device, used by the instructions, will eliminate creeping, flinching, plucking, premature release, snap shooting.

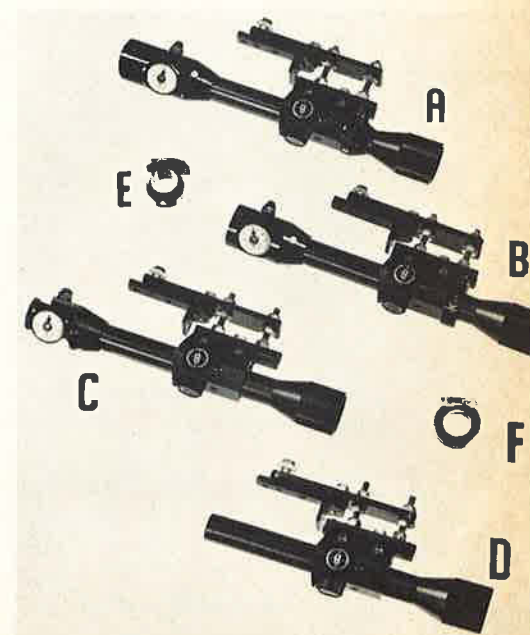
The Martinelle anchor lock sells for \$2.95 and is available from Martinelle Products Company, Norfolk, Virginia, 23518.

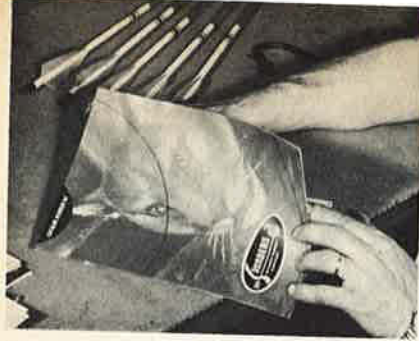
NEW S-K-A BOW SCOPES

Three new models have been added to expand the S-K-A line of telescopic bow sights, according to Larkin Powell, president of the firm.

Among the additions are an indoor, short range model, which features the light-gathering capability of the Bushnell *Phantom* scope. This one was designed especially for shooting under artificial lighting conditions.

The *Protecto Universal* model is equipped with a hooded bracket and an interchangeable glare filter and clout attachments. This particular model also is equipped with an integral bubble level. Also new is a new wrench adjustable mount. These telescopic sights range in price from \$54.90 to \$107.30. And a new brochure is available upon request. Write to S-K-A Scope Mount, Incorporated, (Dept. BA), Box 69, Opportunity Branch, Spokane, Washington, 99214.





TARGET CATALOG

A new four-color booklet, completely illustrated and describing more than a hundred items for individual archers, clubs, camps, schools and commercial archery ranges has just been published.

This catalog is Saunders Catalog No. 64 and has a number of ideas which individuals and dealers can use to help promote archery, according to Chuck Saunders, who put the booklet together.

You may obtain a copy by writing Saunders Archery Target Company, Dept. BA, Columbus, Nebraska.

REPAIR KIT

A new fiberglass repair unit for mending sporting goods, boats and camping equipment. The kit, manufactured by Unican Plastics, comes complete with fiberglass cloth, resin, catalyst, mixing cups, stirrers — and for you messy types — a self cleaning polyethylene squeegee applicator.

The kits are available in two sizes with cloth and resin adequate to cover either 200 or 560 square inches. Complete instructions also are included. For further information, contact Unican Plastic Company, 915 Hartford Pike, Shrewsbury, Massachusetts.



FOR SNAKES

If you're the type of hunter who is fast enough on the draw that he doesn't worry about snakes, don't read this.

But if you do shudder at the idea, Johnson & Johnson has come up with a new compact Sportsman's First Aid Kit that includes a self-contained snake bite unit.

The rust, dust and dirtproof kit is of sturdy high impact styrene and is water-resistant. It contains the basic first aid items needed for outdoor emergencies, the snake bite unit including a suction device, extra suction head, small scalpel, slip-tourniquet, ammonia inhalant, antiseptic vial and instruction leaflet. The whole thing sells for \$7.25 and there's a thirty-four page booklet on tips for survival.

ANIMAL TARGETS

Henry Maravirov is offering a line of life-size full-color animal targets for the bowhunter who wants to get with it early. You can order these individually, or he also has set up a series of sets for various types of hunting enthusiasts.

In all, Hank has some 116 designs and they measure — depending upon the animal — from six-by-six inches to as large as 57 x 67 inches.

For his catalog and price list, write to Henry Maravirov, Box 606, Hayfork, California.

COLOR BOOKLET FROM U.S.

The United States Archery Company has just published a new color catalog illustrating its complete line of bows. As a division of Tri-State Archery, this firm is introducing seven new models, some of which are double stabilized.

The double-stabilizing process means that the bow is stabilized on both front and back and eliminates hand-twisting in manufacture. To obtain one of these booklets, write to United States Archery, Dept. BA, 7 East Franklin Street, Danbury, Connecticut. There is no charge.

BOW SAVER

If you've broken a recurved bow, and have now wiped away your tears, here's a gimmick that may help in the future.

It's called the No-Twist Recurve Bow Stringer. It buckles around the ankle, making step-over stringing safe. Exclusive pressure-equalizing loop applies all stress upon the base of the recurve rather than on the tips. It goes for \$1.25 from Gift Workers at 805 Lindberg Dr., Kansas City 18, Missouri.

HUNTING WITH KITTREDGE

(Continued from page 11)

HOW BIG A HOLE SHOULD I CUT IN THE HIDE?

I cut completely from anus to the start of the rib cage. This enables me to easily reach up into the chest cavity to remove lungs and windpipe and lets me completely clean out anus and bladder. It also opens up enough of the animal that it can cool quickly. Every hunter should carry a small cheese cloth deer bag with which to cover the body cavity after cleaning . . . a heavy weight deer bag in which to hang the deer is kept back in camp. The argument against a large hole is that flies and dirt can more easily enter the body cavity, but flies will enter the smallest hole anyway and the large hole will permit your getting the job done more quickly and cleanly with the deer bag to cover the hole when done.

THE HIDE: TAKE IT OFF OR LEAVE IT ON?

I feel the hunter should leave the hide on the animal until he gets it to camp. This protects the meat from dirt and the hot sun. Once in camp though, the hide should come off without delay. Deer hide is good insulation and prevents even, rapid cooling of the meat.

There is some talk that the hide can taint the meat. While I don't believe this is true, I do feel that its insulating qualities can cause the meat to sour and I'm sure the hair can taint the meat. The only sound reason I've heard for leaving the hide on the animal is to prevent the carcass from getting dirty . . . this is what the heavy duty deer bag is for, so I'm convinced the hide should go.

CAN I USE WATER TO WASH THE DEER CARCASS?

The argument against water on game meat is that it carries bacteria into the muscle tissue, which in turn, sours the meat. I don't know of a commercial processor of beef or other meat that doesn't thoroughly wash down the carcass to cleanse it of all blood, hair, etc. If in a government in-

spected meat plant such washing is done, I see no reason not to also do the same to game.

SHOULD I AGE THE DEER?

Aging is one of the secrets of truly prime game. The aging process breaks down the muscle tissue, adding much flavor and making the meat tender.

The game should be hung, after the carcass is completely clean, in a butcher's cold room or it can be hung in camp from a shady tree. If in camp, hang out during the night to cool, but if the days are warm, cover over with blankets or a sleeping bag during the daytime to prevent the meat from becoming warm. I believe deer should hang from one to three weeks before processing the meat, depending on the size of the animal and how cool the carcass is kept.

WHY IS VENISON DRY WHEN COOKED?

Venison meat is not marbled with fat throughout the tissues as is domestic meat. The only moisture is the juices of the meat tissue. Venison should be cooked rare: at least not over medium rare. Over-cooking drives the juices out of the meat and makes it dry. It furthermore toughens the meat fiber. The less venison is cooked, the tenderer it is and the more flavor it has. It is wise to have all chops and steaks cut extra thick, as thin meat dries out much more quickly. I cut all of my meat a minimum of 1½ inches thick.

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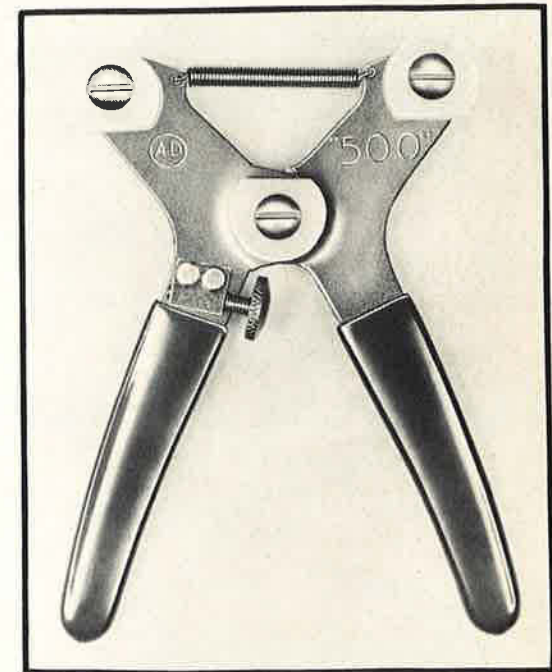
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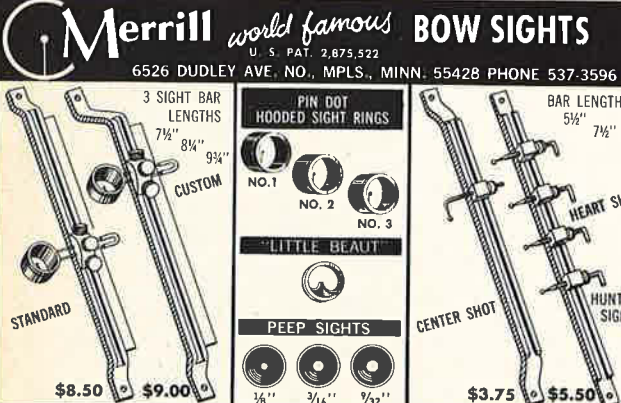
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BOW FISHING
(Continued from page 23)

on the fry of game fish and cause most of the damage. The adult alligator gar feeds on the scissorbills. Without the alligator gar to act as a controlling factor on smaller gar, game fish will really have a rough time of it."

It was October during our trip and the 'gators had ventured upstream out of the Mississippi and Arkansas rivers into White River to "bed down" for the winter in their ancestral hibernation holes.

The gar were on a final feeding fling before hibernation. Their giant bodies surged upward out of the river at frequent intervals for as far as the eye could see. It's an impressive sight to see an alligator gar tailwalking across the blood red waters of the White, leaving a geyser of white water behind.

October is a fine time for watching gar, but it's no time for taking them with bow and arrow. Hitting one when it's rolling is largely a matter of luck, not skill.

A hot summer day is the best time to tangle with the 'gators. Gar have a functional lung and will "float" near the surface on muggy days and nights. But, alas, night shooting of gar is prohibited by law in Arkansas without special permission.

Anyone holding a valid Arkansas fishing license can take gar anywhere in the state during daylight hours. A non-resident annual fishing license is \$5 and a fourteen-day trip license can be had for \$2.50.

One of the special occasions where night gar shooting is permitted is the annual White River Gar Shoot, held at Jack's Bay in the White River National Wildlife Refuge of southeast Arkansas. This colorful outdoor event, sponsored by the Arkansas Bowhunters Association and hosted by the White River Bowmen's Club of DeWitt, attracts archers from throughout the South every July 25.

Archers compete for prizes given for most, biggest and smallest gar and between bouts tangle with heaping plates of deep-fried froglegs, catfish and hush puppies. Last year, archers consumed over two hundred pounds of catfish. Gar shooting works up quite an appetite.

Bowhunters are by nature an independent lot and the gar shoot attracts the cream of the South's crop of bowmen. The varied, and sometimes bizzare, assortment of homemade bowfishing gear displayed by the contestants is a highlight of the shoot. Wicked looking gar fishing points, concocted by do-it-yourself craftsmen, are found in profusion.

Boats are converted into floating battlewagons and altered to suit the archer's fancy, such as lanterns and lights strung from poles for night shooting and soft drink bottle caps nailed upside down on the boat to provide a non-skid surface for the shooter.

All this is done in the hope of lancing the biggest gar ever taken with the bow. Some big ones are taken during the contest, but none even approaching one hundred pounds, or even fifty.

"The biggest gar I've ever seen that was actually taken with the bow, without first catching it on rod and reel, weighed 116 pounds," said Dr. Hancock, a frequent winner of the contest. "It was killed by Charlie Alter and me on one of our trips.

"You can shoot scissorbills until your arm trembles from weariness . . . Not so with large alligator gar," Hancock explained. "It takes patience, skill and perseverance to sing an arrow into a really big gar. I'm still trying.

"But if I ever do, I'll know I've done something and will have a trophy anyone can be proud to show off." And that possibility is what lures Arkansas archers back to the bayou country year after year. ●

MAIL POUCH
(Continued from page 6)

made in this article that Nancy Vonderheide is currently the top shooter in the United States.

Vicki Cook is the top shooter in the United States as well as in the world. She has proven this by winning the World Championship title in Finland last year and still holds this title, as well as her win over Nancy at the NAA tournament at Jones Beach this summer. On top of all this, she is a fine field champion and has shown her hunting skill by taking a trophy whitetail deer in Minnesota.

In my book, this makes her the top all-around archer in the world. I agree that Nancy is a fine archer and one of the best, but let's keep the records straight. It is Vicki, who is currently the top shooter.

Clela Wanamaker, Secretary, Gopher State Bowmen, Wayzata, Minnesota
(Just as Bob Rankin, a native of Cincinnati, is true to the archers of his home state, this writer is true to the champ of the Gopher State. But she was right; they're both great archers.)

NEOPHYTE PROBLEM
I wish to suggest a feature that I would find very helpful as a novice. Would it be possible to have, somewhere in the magazine, a vocabulary column, listing all of the special words that have special meanings in archery?

I believe that an understanding of the special jargon of the archery world would help the average novice as much as instruction.
Hobart L. Doerr,
Orchard Lane, Michigan

(Gad, lad! Do you have any idea how long it took Noah Webster to compile the dictionary? Besides, most of these terms are explained in such books as "New Guide To Better Archery" by Thomas A. Forbes.)

DOUGHERTY FAN
I wish to compliment you on a fine magazine. It is put together with such taste and quality as to be unbeatable.

As for writers, in my opinion, you couldn't have beaten Jim Dougherty. His story about testing the Bear Kodiak bow was truly terrific.

Let's have more stories about African bowhunting. I have absolutely no criticism of your magazine. It's just perfect!

Tom Herrod,
Kenneth, Missouri
(You're wrong. Sometimes we have to beat Dougherty to get him out of the game fields and in front of a typewriter.)

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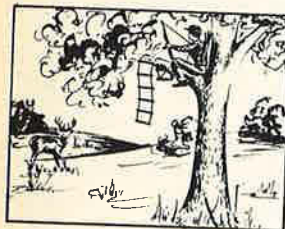
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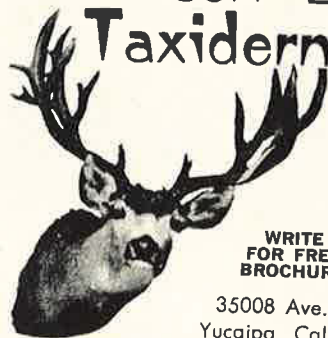
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SANTA CATALINA ISLAND

CANADIAN CHAMPS

(Continued from page 27)

like to compete in the World Championships and, obviously, win it. And he'd like a crack at the NAA title in Philadelphia next year. He's a young man on the move. He attended the Ben Pearson Open Tournament this year at Detroit, and "really enjoyed every minute of it" as a "good and rewarding experience."

A user of power archery at all times, he is a staunch admirer of Dave Keaggy, Sr. "I've read his book on power archery several times and find it more interesting, more informative every time I do," he says.

There are new worlds to conquer in any sport and Dick has the youth and ability to travel the path. His first eighteen years have seen great development and rewards. His next phase should see ever mounting accomplishments.

When Miss Gallie's final arrow left her bow and her score had lifted her to her new pinnacle, one of the proudest to learn the news was one Alan McDonald. The reason? He'll marry Miss Gallie in Toronto, and the combination will be a happy one. McDonald, an archer, too, is a member of the club to which Miss Gallie is attached — the York County Bowmen of Toronto, which is Dick Tone's club as well.

As the new champion, the attractive twenty-one-year-old brunette looks back at winning the Canadian Championship in 1962 and the Ontario championships in 1962, 1963 and 1964, all of which mounts into an impressive record.

She has worked closely with Dick Tone who served as her instructor for a time in instinctive shooting. Before picking up pointers from Tone, she was self-instructed in power archery and, according to her own expressed opinion, this has helped immeasurably in the development of form, shooting and accuracy and has hiked her score up 150 points at a time.

One again one senses the extreme care a champion takes in selection. She uses a Tillmark *Starflight* sixty-six-inch bow, thirty-two pounds at twenty-eight inches. Her arrows are Easton 24SRT, 1618 P26, three-fletch plastic fletch twenty-seven inchers, but she expects to go to a twenty-eight-inch arrow soon. He pin sight is home-made by her dad, Alen Gallie.

Like Tone, she has aspirations: She'd like to win the amateur championship at the Ben Pearson tourney, where she placed fifth in

1963. When she set a new record in the FITA round this year, she scored 941 — the old record was just under 900. She also holds the Canadian record for the American round, 668.

All archers recollect exciting moments in competition. Miss Gallie well remembers the exhilaration of winning the Canadian Championship in 1962 — even after throwing an arrow on the last end of the FITA round during this tournament when she tied with Jeanne Lefebvre of Duvernay on the last day.

"It gave me quite a start," she recalls.

Miss Gallie is employed by the Physicians Services, Inc., as a private secretary, and resides in Toronto. She has taught physical education at Bishop Strachan School, a private school and has instructed in archery at Camp Kinnaird, a girls' camp at Kenara, Ontario.

She and Tone think alike on a Canadian-American shoot; she'd like to see one and participate in it. Right now she's got her sights on the World Championship tournament in Philadelphia next year. She also has positive ideas on money shoots. She'd like to see some of them exist in Canada, believing that such competitions would be of the utmost value in the promotion of archery. She's not alone in this thinking, for many have said the same thing.

As do most champions, she stresses the utmost importance of equipment selection.

"I feel it is only fair to patronize Canadian manufacturers," she says, "but I feel that in order to shoot top scores, one must shoot top equipment and quite a bit of it is made in the United States."

However, in her opinion, archery in Canada still has a growth period and in her own club, membership has tripled in two years. Such growth will spark off even better equipment, she feels. Further, she says, the apparent growth is indicative of the tremendous popularity of archery."

Her preferred bow, insofar as American-made ones are concerned, is the *Pro Hoyt*, but with a quick flash of Canadian patriotism, she'll point out that she won her championship with a Tillmark.

She disdains good luck charms, says such things form a crutch and a good archer doesn't need one. Her formula: Disregard the target and score while learning and concentrate on good form.

There's no question but what her formula is a good one — it has put her on top! ●

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TOXOPHILITES of the United States and Canada, more than a million of 'em, come in all sizes, shapes and weights. Some are tall and narrow; some short and, er — stout or rotund, and some are big and broad.

This is the way it has been since man first bent a piece of wood and tied a piece of sinew to both ends, and this is the way it will be as long as toxophilites — or archers, if you will — continue to shoot for sport and pleasure.

It is only natural to assume, therefore, that if there are marked and pleasant differences in archers — other than sex — that this would be reflected in the bows used by them. Certainly such was the case at the 1964 National Field Archery Championship at Watkins Glen, New York. Some really outstanding examples of personal ingenuity and inventiveness were displayed and used. No one can ever get away from the fact that the bow (a Teutonic word for anything bent) will always remain just that: A bendable,

flexible article which, according to one definition, is a device in which energy can be accumulated slowly (the draw), stored temporarily (the hold), and released suddenly under control and direction.

Most unusual bows have much thought behind them and the designing work on many is outstanding; they are, when completed, things of beauty and those displayed and used at the Nationals were no exceptions.

J. W. Keyes of Alexandria, Virginia, used a bow seventy-six inches long, with a weight of thirty-eight pounds. The actual scale weight of the bow ran four pounds. Keyes, who has been bow making for forty years, started his hobby when a youngster, cutting, shaving, sanding lemonwood, osage orange and yew until he had perfected his art. The bow's extra length, he says, gives him greater stability and thus better control. Keyes has made bows for several friends, and as part of his hobby, he continues a decided interest in the design of models. He has his custom shop at 6504

Dan Olson shot the nationals with this 68-inch bow, custom built and designed. It features an unusual handle design with a special stabilizer.

Below: J. W. Keyes, a custom bowyer in Alexandria, Virginia, favors the over-long bow, and his personal model measures 76 in., 38-lb. pull.



*Some Of These
Outer Space Models
Are Straight From The Moon,
But Shoot Earth Accuracy!*

NEW BENTS IN BOWS

By Joe Higgins

Left: Marine Sgt. Emil H. Saleska uses a Keyes custom bow that has an actual weight of six pounds. It measures 73 inches and is take-down type.



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Duke Street, Alexandria, and most folks can catch him at that address if they so desire.

Scientifically minded Americans such as physicists and engineers have moved into the picture with new and experimental types. One of these fine days, a bow so perfect may be evolved that toxophilites will be shooting through the eye of a needle for scores!

When Sergeant Emil H. Saleska of the United States Marine Corps, stationed at Camp Lejeune, North Carolina, wanted a bow of unusual design, he went to Keyes; returned with a custom built job seventy-three inches long, thirty-eight pounds at twenty-eight inches, with a scale weight of six pounds. This one attracted a great deal of attention at the Nationals for obvious reasons; in an aperture in the lower limb, it contains a cut-out of a scene with an archer at draw, shooting at a deer! How many bows like that have you seen around? Sergeant Saleska, a Marine for the past ten years, who also served four years in the Navy, says this bow has "remarkable stability; shows no vibration after release and its cast is superb." The inlay is in a glass-like substance, which Saleska had put in "just to make the bow different." The bow, incidentally, is a take down model and traveling with it even from one duty station to another presents no problem for the sergeant.

Another that attracted a lot of attention was the bow owned by Roy Bovee of Chittenango, New York, who is a sales representative for the Sanders Archery Company of Cortland, New York. He had definite ideas as to what kind of bow he wanted, and offered designs for it. Called the Sanders Classic Model 500, it is seventy-two inches long and there probably isn't another design quite like it. Its outstanding features include what Bovee terms the elimination of torque and the large overdraw is designed to overcome bow shock. A reverse model also is made which eliminates arm slap, he says. The model displayed in this article is custom made on specifications from the ordering archer, is made in 68 or 72 inch length, goes from 28 to 45 pounds and the selling price "starts at \$160."

Bovee has been an outstanding archer in New York State and in past years has won several state titles. Recently he joined the Sanders staff and now devotes a great deal of his time in designing bows and sighting devices.

From Pittsburgh, Pennsylvania, came Don Olson, with another unusual model, a sixty eight-inch bow made for him by Bill Hearn and Bill Kerner of Vandergrift, Pennsylvania. As the photo shows, this bow employs a special grip, a detachable stabilizer and on the scales weighs four pounds. Don will tell you he finds the bow has great cast, is "real comfortable to shoot."

A great many stabilizers were being used on various bows of American manufacture, which ordinarily do not have such standard equipment. Many were made by either the archer, himself, or by others, who are building up a profitable business out of these devices. Some are made from tool steel, and may range in length from six inches to approximately three feet. The writer recently added a stabilizer to his Bear Tamerlane and found his shooting greatly improved.

One thing for sure: Had the American plains Indian who used a short, flat bow, or the forest Indian who used a longer, more powerful one, or even the old Mongols who used a short, powerful, composite bow, ever seen the unlikely models at the Nationals, their eyes would have bugged out.

It's a matter of record that since 1932 the increase in archers has been greater than in any other period in American archery and consequently, with the increase has come an improvement in tournament scores and in actual equipment.

CLUB CALL!

WHAT'S THIS PUBREL THING?

ANYTIME you walk into a television station, a movie studio, an advertising agency, or even a military base, you'll hear discussions of something called "pubrel."

To the average individual, this may sound like a bad brand of pig latin, but it actually is a bastardized abbreviation for the term, "public relations."

We all have some minor grasp of the subject, no doubt, but how many archery clubs actually are in there pitching, attempting to build the image of archers and archery? Not enough, sad to say.

But one of the more successful efforts has been made by the Windy City Bowmen of Chicago. On WTTW, Chicago's educational television channel, this group aided in the presentation of a three week series called **Aim at Archery**. The Chicago Archery Center provided archery know-how, drawing upon the Windy City Bowmen for personnel.

The series was designed for those with virtually no knowledge of archery, although the resulting mail showed that even those with experience felt that they had picked up numerous pointers.

The series began with an introduction of modern archery equipment and the basic techniques of shooting. The second show reviewed the basics and put the spotlight on field archery. Utilized here were such visual aids as slides, an explanation of the target faces utilized and further instruction. The third show used some of the hunting film taken by Fred Bear, and explained the basics of bowhunting, emphasizing equipment.

Participating in the series were Char Mrowicki, the Windy City club's instinctive champion and Jim Gardly. Weeks of rehearsal resulted in a finished product that is bound to arouse an increasing interest in archery, and more important to the club, to bring new members.

Today, these educational television stations — for the most part without any kind of commercial sponsorship — are coming into being over the country. Many of these are being operated by colleges and universities as a means of spreading knowledge and affording training for students.

In short, the majority of such stations are in need of material to fill their broadcasting hours. Inasmuch as they are firmly devoted to the dissemination of knowledge, archers certainly have a potential here to help plan a program and to get their sport before the public.

This is only one phase of this thing called "pubrel." We will be discussing it further in the future, but when it comes to a basic definition, you could say that it is "presenting an image in the best possible and most favorable light to a mass audience."

CANADIAN BOWMEN

Our man in Albany, Joe Higgins, journeyed up to Canada to cover the Canadian National Archery Tourney, and you can read his report in this issue.



But he was most impressed with the facilities of the Club des Archers de Joliette, where the championships were held. There is talk that we hear frequently about archery still being in its infancy in Canada, but those enthusiasts have done much to build themselves a fine clubhouse, provide a range upon which champions are proud to shoot, and to make visitors welcome.

There are going to be those smaller clubs, of course, that will say that they don't have the membership or interest to provide expensive clubhouses. This is undoubtedly true, but the matter of making visitors welcome costs little. And that, too, comes under the heading of public relations.

PARALYMPICS

Ben Pearson tells us of patients at the Princess Alice Hospital in Retreat Cape, South Africa — wherever that is — who take their archery seriously. For example, Gordon Popplewell, a paraplegic patient at the hospital, became a candidate to represent the Republic of South Africa at the Paralympic Games in Tokyo in November.

Last August, the South African broke the world record for paraplegics in his section by scoring 638 against the previous high mark of 634 in the St. Nicolas Round. He competes with a thirty-pound Pearson Pinto bow, using twenty-eight inch arrows.

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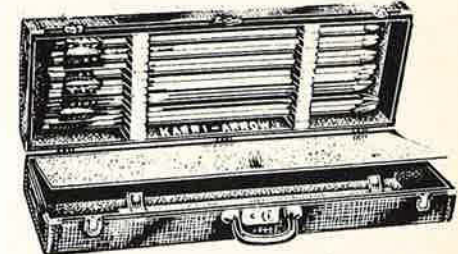
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COMPLETE FIELD GUIDE TO AMERICAN WILDLIFE by Henry Hill Collins, Jr., 683 pp., \$6.95. Published by Harper & Row. There is no doubt that this is a scholarly work and was meant to be just that. Generally speaking, it covers every species of bird, mammal, reptile and amphibian, food and game fish that occur regularly in the United States and Canada east of the Rocky Mountains and north of the Carolinas and Oklahoma — although not necessarily in that order.

Some idea of the degree of labor that went into its preparation is reflected, too, in the fact that there are more than 2000 illustrations and maps designed especially for this book. Some 700 species are pictured in full color.

THE COMPLETE BOOK OF ARCHERY by Robert Gannon: Coward-McCann, \$4.95, 256 pp.

In early chapters, as it should be, the author discusses the basic needs in the type of equipment needed by the beginner as well as that favored by the experienced archer. As the book progresses, the information becomes increasingly aimed toward the individual who is progressing in form, competence et al.

There are complete sections on field and target archery, tournaments, strings and stringing, and useful tips on how to avoid the more common shooting problems.

THE YOUNG SPORTSMAN'S GUIDE TO ARCHERY by G. Howard Gillelan. Thomas Nelson & Sons; \$2.50; 96 pp.

This thin volume is put together in eight easy-to-read chapters that will give the young or beginning archer full insight into the sporting aspects of the bow and arrow.

PROFESSIONAL AND AMATEUR ARCHERY TOURNAMENT AND HUNTING INSTRUCTIONS AND ENCYCLOPEDIA by George Leonard Herter and Russell Hofmeister; Herter's, Incorporated, Waseca, Minnesota; \$2.57; 288 pp., with 263 illustrations and photos.

THE BIG GAME ANIMALS OF NORTH AMERICA by Jack O'Conner. Published by Outdoor Life and E.P. Dutton & Company; \$10; 264 pages.

O'Conner discusses his hunting exploits with his usual relaxed style and good humor.

And nothing seems to have been left out; in these pages, the author takes us from the glaciers of the Yukon on a Dall sheep hunt to the jungles of Southern Mexico, where he hunted jaguar. In between, he discusses at length another twenty animals in the big game category and all of them native to this continent.

It's a top book, whether it's for your own hunting reference shelf or it's an educational project for the kids.

TECH TALK

(Continued from page 10)

helical. Stay away from noise, as the animal — as you indicate — can easily jump away before the arrow reaches him.)

BIGGER BOW?

I am thirteen years old and would like to take up archery as a serious pastime. I have a cheap thirty-pound bow and three insufficient arrows. I can draw this bow very easily and feel that I should have a more powerful bow.

What height, size, poundage and make would you suggest for a boy five feet, eleven? How about corresponding arrows?

Charles J. Sepos, Jr.
Massilon, Ohio

(Arrows of twenty-eight inches probably would not be too long and are easy to obtain, although an inch shorter might better serve your needs. As for the bow weight, we would advise that you not go above forty-five pounds draw at this time. This is satisfactory for even big game hunting of deer, etc., yet is light enough for target work.)

SHORT AND SWEET

Generally speaking, how long can the average well-made bow be expected to last?

Alden Murphy,
New York, New York

(This sounds like a man with a broken bow who wants to lower the boom on someone. However, modern bows have practically no breakage. With the laminated fiberglass designs, bow weight and efficiency remain the same throughout the life of the bow and are not affected by weather or humidity. It is doubtful that an estimate can be given as to the probable life of a modern bow. The best answer is that the normal archer can expect the bow to last as long as he wishes to use it.)

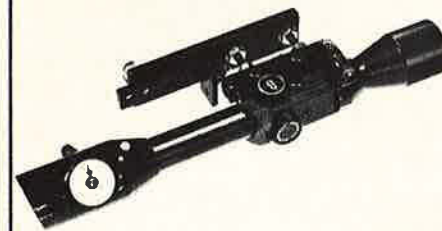
TEFLON TROUBLE

In the Sept./Oct. '64 BOW & ARROW, Doug Kittredge made mention of having his camp pots treated with teflon. I have been unable to contact any firm in my area which supplies this service. I would appreciate it if you could supply me with the name and address of any firm which could offer me this service.

Richard W. Quinn,
Patchogue, New York

(There is a spray can of teflon which has recently been introduced on the market, sold through hardware, variety and department stores. It is sprayed onto the interior of the pan or pot, then baked in an oven to harden. It should not be difficult to find this type of supply.)

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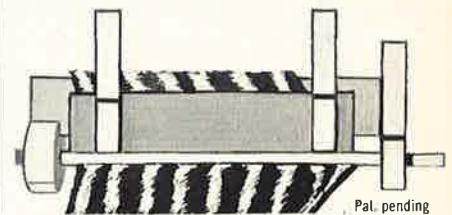


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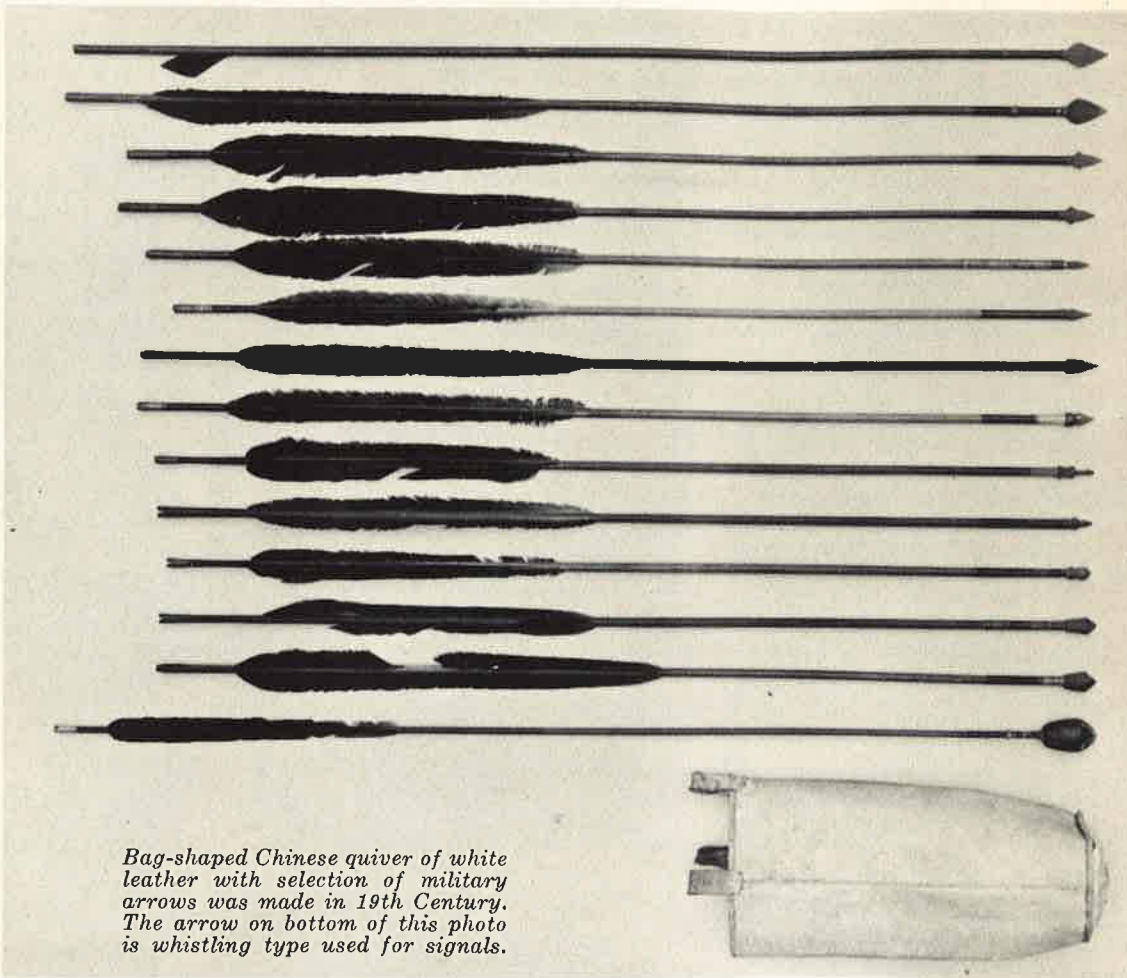
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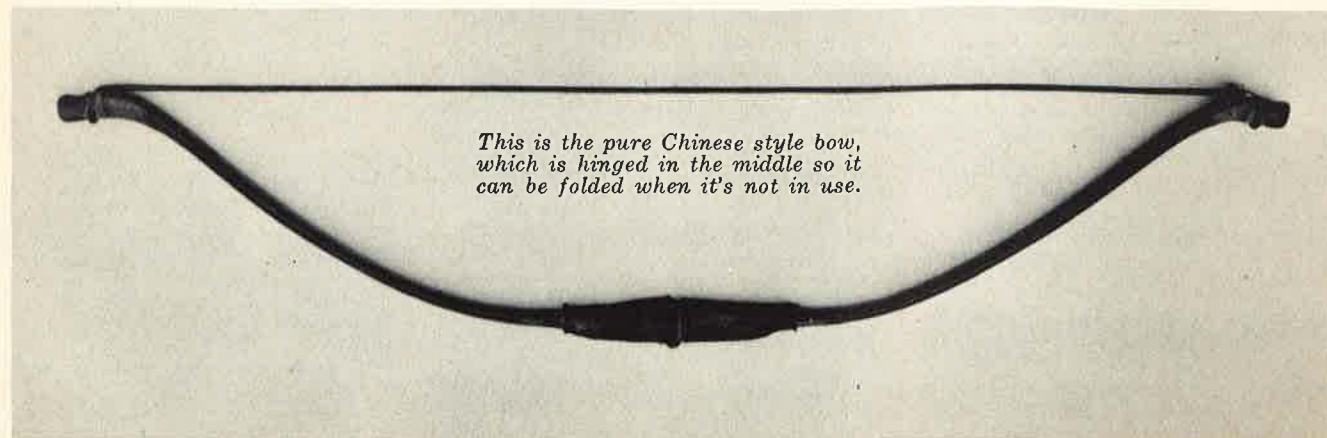
By Col. Robert H. Rankin, USMC

The Chinese
Invented
Gun Powder,
But The
Bow And
Arrow
Was
Their
Weapon
Of
Warfare
For
Centuries!



Bag-shaped Chinese quiver of white leather with selection of military arrows was made in 19th Century. The arrow on bottom of this photo is whistling type used for signals.

Photos From
Metropolitan
Museum Of Art



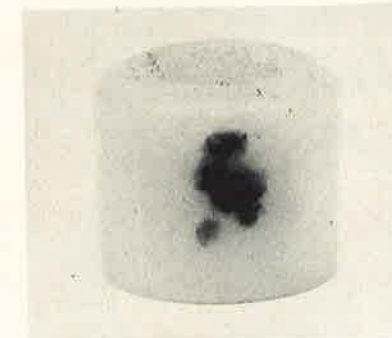
This is the pure Chinese style bow, which is hinged in the middle so it can be folded when it's not in use.

† HERE is a popular myth to the effect that long ages ago the classic Chinese had risen far above war. Among other things it is related that, although they invented gunpowder, the Chinese chose to use it largely for fireworks, declining to use it for the purpose of slaughtering their fellow men. All this is sheer nonsense! It is most unfortunate that this fiction has been repeated by many respected historical writers who could be expected to know better!

Actually, such things as weapons, fortifications, and siegecraft were brought to a high degree of development in old China. It was only in later years that the art of warfare declined. Consider for instance that under such rulers as Wu Ti, who reigned 140-86 B.C., the Chinese conquered far-flung territories. Consider, too, that the oldest military work in existence, and certainly one of the finest dissertations on military principles ever written was produced about 500 B.C. by Sun Tzu. This work in fact deals with fundamentals which are timeless and it is read with profit and with interest by military planners today.

The low estate into which Chinese military affairs eventually fell is due far less to philosophic and pacifist tendencies than to a pure love of war for war's own sake, a characteristic which at length led to pre-occupation with the pure theory of the thing rather than to a practical concern for the development of weapons and tactics. Finally, after the conquering of vast areas, there was but little demand for the development of a vigorous strategy; the point having been reached where there was far more wealth within the empire than without. Consequently there was little incentive to develop aggressive tactics. It is not at all surprising, therefore, that apathy set in and the military decline of China was speeded along on its way.

One of the oldest and most interesting of the old Chinese weapons is the bow. This is a composite design made up of a main core or frame of bamboo to which are glued pieces of deciduous wood, horn, and sinew. The characteristic Chinese bow has a sharp bend near each



Above are Chinese archer rings. The one at top is D-section type of green jade. Other ring is of white jade with a green spot. Below is a brocade-covered case for archer's ring. It is divided in two parts in order to carry two of these rings.



end. Wood was glued to the bamboo at the handle and on the bends. Horn then was glued to the belly and sinew was glued to the back. The ends and the handle were covered then with leather or sharkskin. A small narrow block of wood was doweled and glued on the belly of the bow, about nine inches from each end. The bowstring rested on these when the bow was not in use.

Generally speaking, these bows were large and powerful. Military bows had a pull of from 70 to 100 pounds, with bows of 150 pounds pull frequently being encountered.

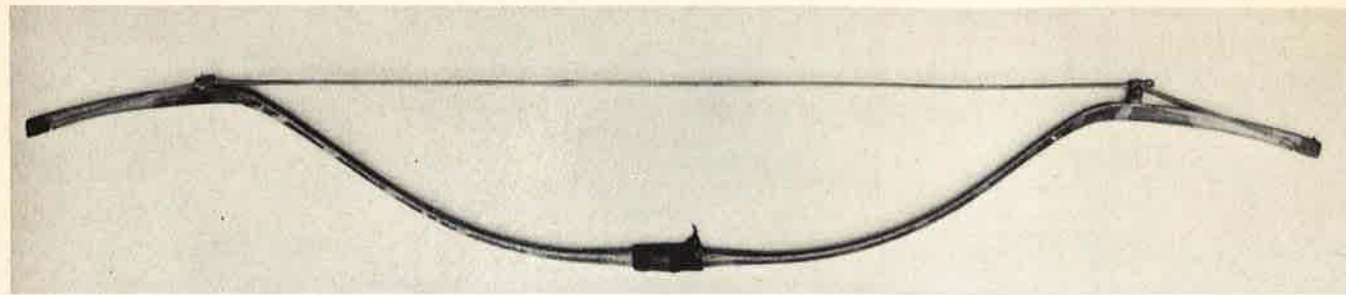
Arrows were of various lengths but usually varied from around three and one-half feet to slightly over four feet. Military arrows were fitted with socketed iron heads. Whistling arrows, used for signaling, were originated by the Chinese and were used extensively by them as well as by the Japanese. Whistling arrows had a large hollow head with openings cut in the front and sides. The air rushing through these openings produced a weird whistling noise. Feathers were, in most instances, placed in line with the shaft. However some military arrows had the feathers placed in a spiral. This caused the arrow to rotate, thus increasing its power.

Bow cases and quivers were of cloth or leather, or a combination of these. These articles were usually very highly decorated and were worn suspended from the belt of the warrior.

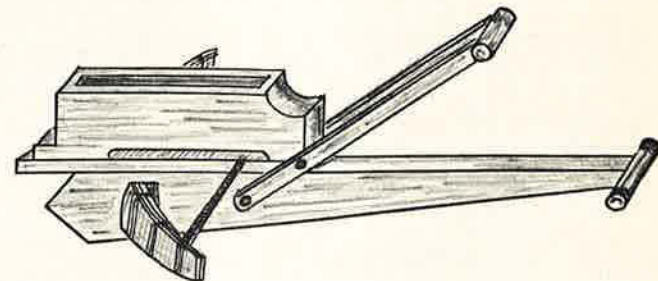
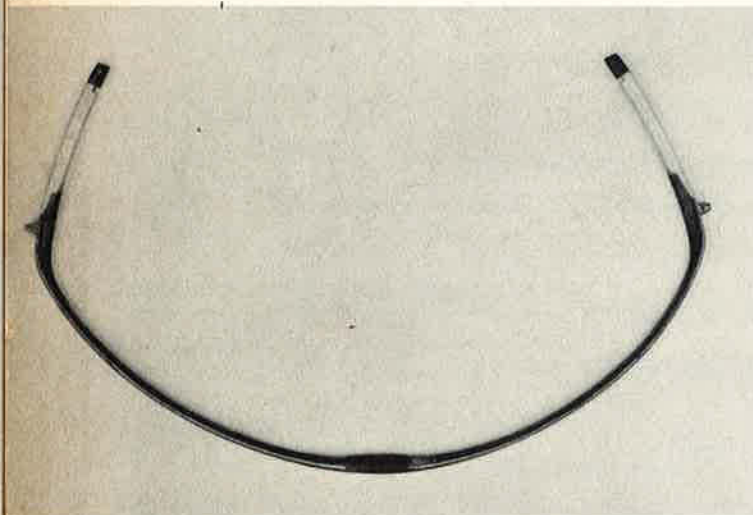
Bowstrings were of two kinds. Heavy strings for the big bows were made of twisted sinew, while strings for the lighter bows were composed of elaborately wound and knotted cotton threads.

Like the Japanese, the Chinese also used a sectional bow which could be folded or even taken apart. The Chinese version consisted of two pieces, hinged in the middle. Each half was built up of wood, horn and sinew, much in the same manner as the larger bows. These sectional bows were rather weak. They were most often used for parades and for amusement.

In drawing and loosing the bowstring, the Chinese, in common with other Asiatic peoples, used the thumb.



This is a Chinese bow of the Manchu type 18th Century. The back is painted and ends have been covered with shagreen.



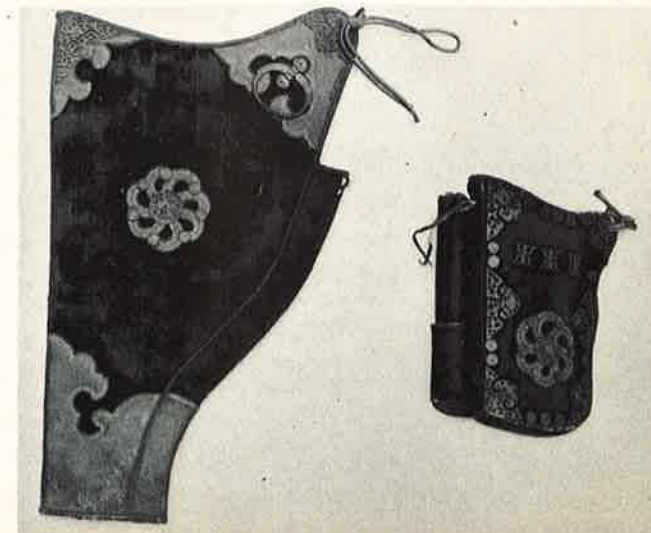
This Chinese repeating crossbow has been made of light wood with a bamboo bow. Bolts were short and discharged ten in twenty seconds.

Left: This exceptional Chinese bow is horn-backed with the horn in a single piece for full length. The middle is covered with shark skin. This bow is said to have been used during the Boxer Rebellion.

This Chinese bow case and matching quiver are of brown leather trimmed in black and it has bronze mountings. There is a hinged pocket on the back of the quiver for special arrows. Made in 18th-19th Century.



This Chinese bow case and quiver, manufactured in the late 18th Century, boasts gilded brass mountings. It has been decoratively covered with black velvet and green leather by unknown Chinese artisan.



A so-called archer's ring was used to protect the thumb from the chaffing of the string as it was drawn and released. These archer's rings were made in various shapes from a number of materials, including horn, bone, ivory, stone and tortise shell. Jade was most often used by the Chinese. These rings were often carried in highly decorated ivory or cloth cases suspended from the belt.

Any review of Chinese bows should include mention of the repeating crossbow, a weapon which was unique to China. This weapon, which permitted the discharge of ten bolts or arrows in less than twenty seconds, was ideal for stopping mass attacks. It was similar in appearance and in basic action to the conventional crossbow. A strong bow, made of a single stout piece of bamboo or of several flat bamboo strips lashed together, passed through an opening in the fore part of the stock. It was lashed and wedged securely in place. The bowstring was of twisted sinew.

A long, oblong, box-like magazine was fitted to the top of the stock and was so arranged that it slid easily back and forth along the length of the stock. A lever hinged to either side of the stock also was attached to either side of the magazine. The magazine held ten or twelve bolts or arrows, each approximately fourteen inches long, stacked one on top of the other.

Pushing the lever forward shoved the magazines along the top of the stock, causing the bowstring to be caught in a notch above the trigger. The forward movement of the magazine was continued until the rear of the bolt or arrow cleared the bowstring, at which point it dropped into a lengthwise groove in the top of the stock. The lever and magazine then were pulled back, bending the bow. Pulling the lever back still further released the bow string to discharge the bolt or arrow.

The effective range of this unique weapon was reckoned at some eighty yards. The bamboo bolts or arrows were fitted with steel heads but had no feathers. Inasmuch as they were light in weight and had but little penetrating power, the heads often were treated with highly poisoned ointment.

Interestingly enough, China's military know-how deteriorated so greatly that bows were being used as a principal weapon as late as the Boxer Rebellion (1900), a time when in western civilizations the magazine rifle and the machine gun were being used in increasing quantities. ●



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books for bowmen



HOW TO MEASURE AND SCORE BIG-GAME TROPHIES by Grancel Fitz, Published by Outdoor Life, \$2; 88 pp. For many years before his death, the late Grancel Fitz wanted to publish a popularly priced book on measuring and scoring of North American game animals. This is that book.

Actually, this is two books in one, for it is sectioned so that it can be used by the firearms hunter, using the official Boone and Crockett Method of scoring, or the bowhunter can check this volume to determine the standing of his trophy by using the Pope and Young Archery Method.

The late Mr. Fitz points out that there was no really official game scoring system until 1950, when the Boone and Crockett Club came up with its official scoring methods. This system gained world-wide recognition in a hurry, but a lot of the rules still were being misinterpreted even by professionals.

For the bowhunter, the Pope and Young Club came along to offer the same service, and the title of the institution is meant to honor the early and great bowhunters, Dr. Saxton Pope and Arthur Young. This system came into actual use in 1957.

This paper-bound volume is simple in text, making it difficult now to misinterpret the rules for measuring trophies. Included are official charts for most of the types of game one is like-

ly to find on this continent; in all it covers some twenty-five game species from black bear to whitetail deer. In short, if you're a trophy hunter, you need this book.—JL

NELSON'S ENCYCLOPEDIA OF CAMPING by E. C. Janes; Thomas Nelson & Sons; \$7.50, 682 pp. This thick volume is subtitled, **A Complete Guide to the Outdoors**, and it comes about as close to filling that claim as any single volume to be found. Not only does it cover camping in general, but covers, as it further claims, everything from "angling, archery and axes to woodland trails, water supplies and the YMCA."

It is easily readable and if you go along with the old Chinese axiom comparing pictures with words, there are some three hundred drawings to aid in illustrating the points made.

There is a wide range of information covering related subjects, too: Automobile camping, boating; hunting, fishing; hiking, skin-diving; mountain climbing; photography, et cetera. And for the individual seeking a quick reference, the book has been arranged in alphabetical sequence for quick reference and easy use. This organization alone no doubt required months of thought and work. There also are extensive cross-references which lead to related subjects to further aid the reader or one who wants to research a particular subject.

For the experienced outdoorsman, much of the information will seem pretty basic. It contains facts that he long ago came to take as a matter of course. But there are comparatively few experienced woodsmen in our ranks; this volume is aimed at creating an interest in hunting, guns, archery and the other outdoor pursuits. There is no doubt that among newcomers to the field it will prove a boon and even the grizzled hunter can find facts here that will give him pause to stop and consider.—MH.



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