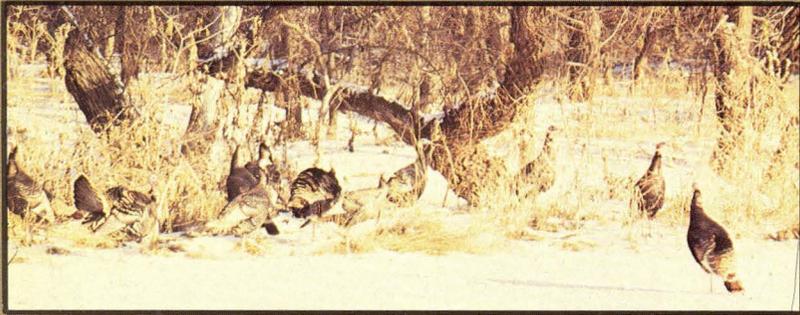
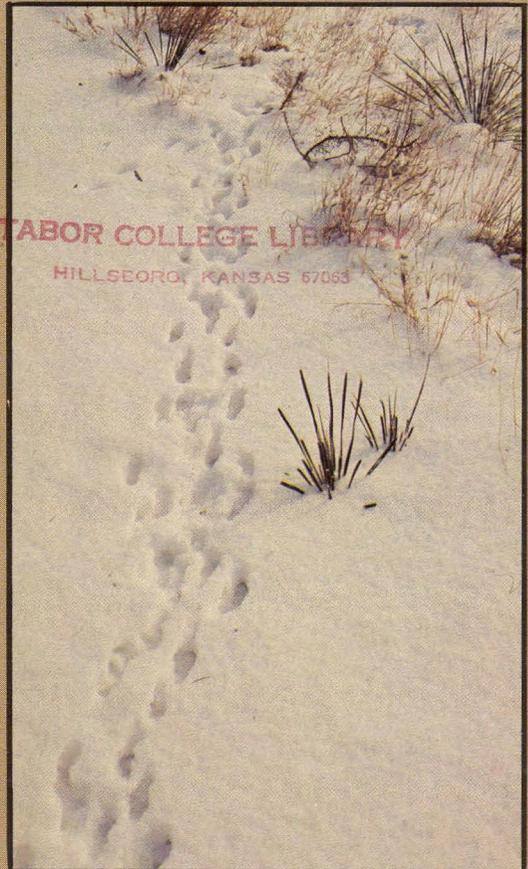
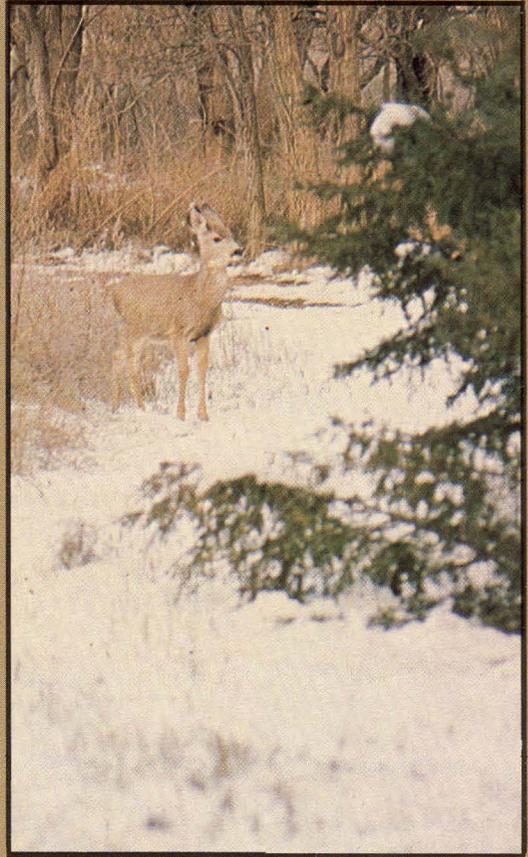


KANSAS FISH & GAME



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January-February, 1976

KANSAS FISH & GAME



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CONTENTS

The Durable Cottontail by Vic McLeran	1
KANSAS FISH & GAME Interview by George Anderson	4
The Kaw Speaks by Bill Scott	6
Beagles and Bunnies by Bob Wellborn	9
Cherokee Craftsman by Paul Bocquin	12
FISH & GAME FORUM	16
OUTDOOR BOOKS	17

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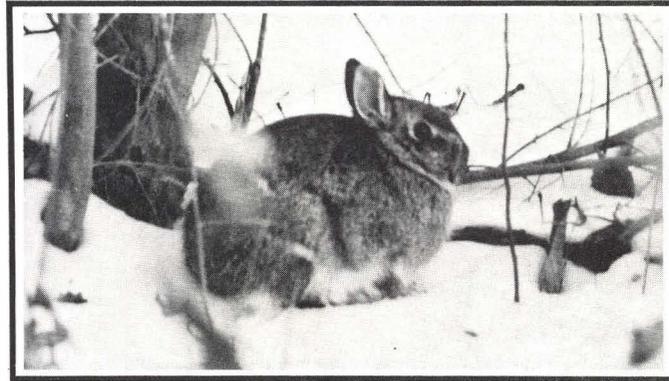
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**The surprisingly durable cottontail
isn't always as fragile or timid
as you might suspect.**

The Durable Cottontail



Ken Stiebhen

By Vic McLeran, Editor

IT HAD BEEN a long day for George Whitaker. As a law enforcement supervisor for the Commission, he'd been patrolling country roads of northwestern Kansas since before dawn and it was now nearly sundown. Whitaker turned his car southward on the Rawlins County road and headed for home—Atwood.

Easing into a long southwesterly curve, Whitaker glimpsed movement in the roadside weeds ahead. He pulled the car to a stop and peered through the dust-covered windshield. Suddenly a cottontail leaped high above the grasses and kicked out with its hind feet. A sinewy, snakelike shadow pulled back—it was a long-tailed weasel, one of the most competent rabbit predators on the continent.

Facing the weasel now, the rabbit approached the predator in the crouch. Once again, the cottontail leaped over the weasel, lashing out with the long-nailed hind feet. Fur was torn from the predator's back as

the rabbit's nails found their mark.

This last onslaught was too much for the weasel, which disappeared in a nearby plum thicket. As evening shadows lengthened the cottontail turned to a clump of weeds and began pulling away hair and soft grasses from her nest.

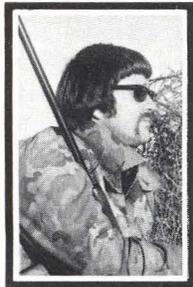
Although incidents like this are surprising, they're more common than you might suspect. And even though the cottontail is preyed upon by nearly every predator on the continent, it is at times, quite fearless and aggressive.

During breeding season male cottontails have been observed in bloody, sometimes fatal battles. Leonard Lee Rue, in his book, *Cottontail*, describes the action: "While just a few feet apart, the rabbits circle each other warily. Each is searching for an opening that will present the opportunity of dashing in and biting the opponent. Should this opportunity fail to materialize, the two males are likely to rear up and strike out at each other with their forepaws, in the manner of boxers sparring. As their excitement mounts, each charges at the other in an effort to unbalance its rival and enable it to be raked with the claws. Each attempts to leap over the other, delivering as it

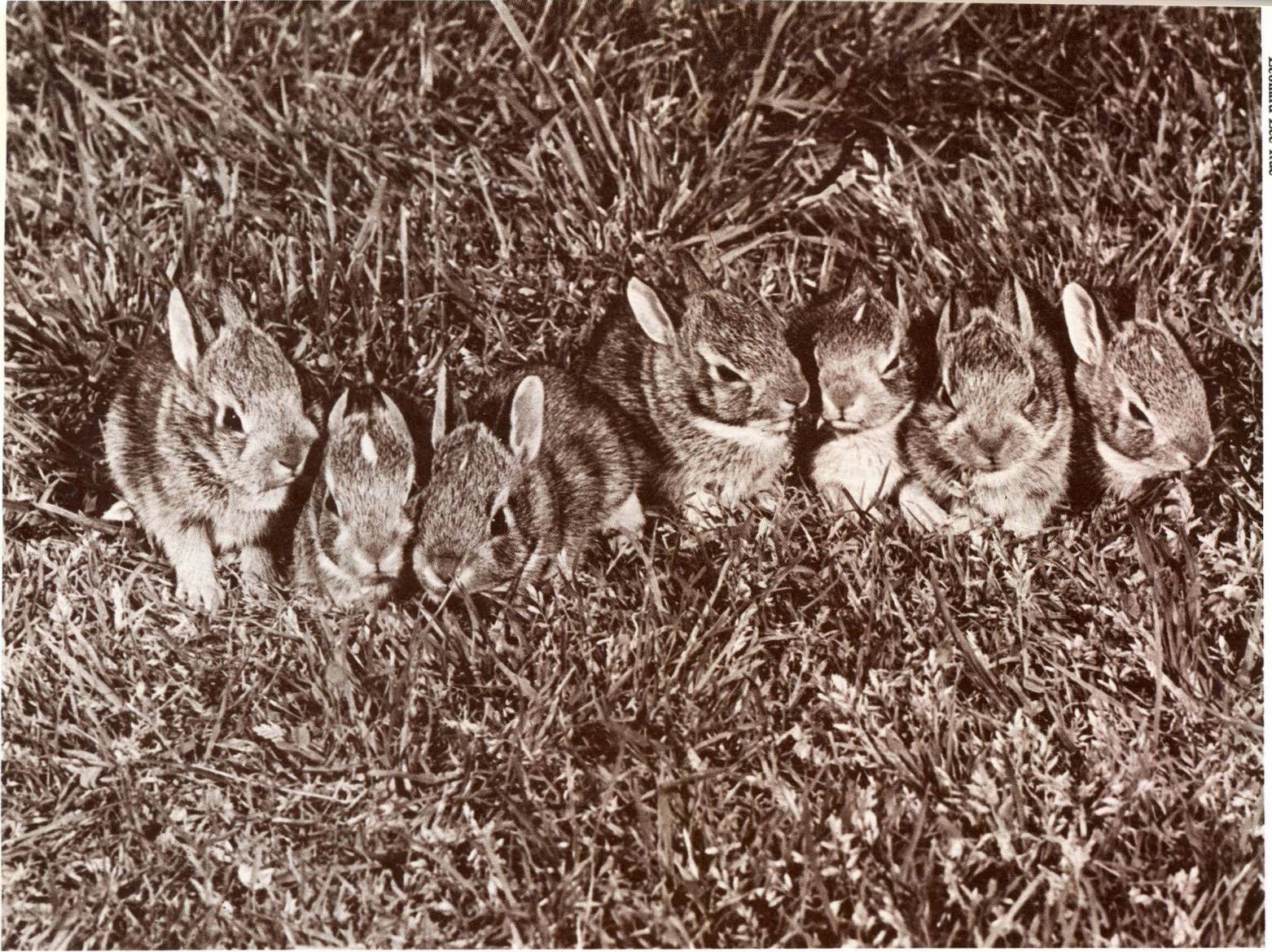
does so, a hard 'rabbit punch' with its hind feet. By this time, the subordinate rabbit usually yields ground and runs away, pursued by the victor."

"Every so often the rabbit disproves its reputation for timidity," Rue continues. "The fight becomes savage and bloody and may end in death for one of the contestants. Snowshoe rabbits are even more pugnacious than cottontails. I once saw a snowshoe rabbit that had been killed by a breeding rival. The victim's hide had been kicked off its entire body as cleanly as though it had been skinned by a hunter. However, the muscles beneath the skin were severely lacerated, mute testimony to the ferocity of some of these 'love' battles."

Female rabbits with young can also be aggressive. There have been several incidents where female cottontails attempted to drive off crows which were attempting to prey on their young rabbits. One female cottontail was seen running along the ground beneath a crow which was carrying a squirming baby rabbit aloft. Although the mother rabbit could do nothing, she was willing to try. Another female cottontail actually attacked a crow that flew down and attempted to fly off with a baby



McLeran



These young vulnerable cottontails are protected by a mother who at times can be downright aggressive.

rabbit. Before the crow could get airborne, the female struck the crow and forced it to drop the young rabbit. As the crow returned to the attack, the mother rabbit and her youngster scrambled safely into the brush.

Even humans have felt the wrath of an irate cottontail since there are several cases on record where rabbits have attacked people. In one case, a young cottontail which had been bottle-raised by some people was later released in the back yard. The following spring the rabbit continued to come up and take lettuce from the hand of the woman who had raised it. But one day the cottontail bit the woman on the finger and several days later attacked her and two small girls by scratching them on the legs. The woman suspected rabies so she called

a state game warden who killed the animal and had it examined. They didn't find rabies but a careful search of the back yard turned up a nest with five baby rabbits. The adult cottontail had been nursing her young and evidently felt threatened whenever humans came too close to her nest.

On another occasion, a game protector was called to remove some young cottontails from a nest in a patch of beans. When he picked up the youngsters, their high-pitched alarm squeals brought the mother rabbit on a run. Observing the rabbit's display of courage in approaching its mortal enemy man, the home-owner relented, saying that she didn't care if the rabbits ate all the beans but to just put the youngsters back in their nest.

When cornered, the cottontail can

put a good fight against even the fiercest predators. Researchers once put a live cottontail in a cage with a bobcat as food for the larger predator. When the cat walked over to eat the rabbit, the cottontail responded with several sharp kicks to the cat's head. The startled cat withdrew to a corner of the cage where it sat for sometime before finally making the kill.

On another occasion, a cottontail was tossed into a cage containing several young red foxes. As two of the pups moved in on the rabbit, it leaped over their heads and gave both several shots to the head. This continued until all of the foxes joined in and finally dispatched this "timid" cottontail.

Rabbits seem to be accident prone and we occasionally hear of rabbits

killing themselves by running into things. This can lead us to believe that cottontails are more fragile than they actually are. But at times, they can be exceptionally tough.

In Pennsylvania a man was driving down the road when a rabbit ran out of the roadside bushes and jumped into the car's grille. With the combined speeds of the car and the rabbit, the animal was driven through the grille and into the radiator. As the driver extracted the rabbit remains from the gaping hole in his radiator, he watched all the water run out, leaving him stranded several miles from the nearest town.

Another Pennsylvania rabbit survived under rather constricting circumstances. At some time in its early life, the cottontail had crawled through a metal Mason jar ring. The ring passed over the animal's body and stopped just behind the rib cage. As the animal grew larger, the ring grew tighter. When the cottontail was killed by a hunter, it was in good health, but there was a lot more rabbit before and behind the ring than there was in the middle encircled by the ring.

But by far the most vivid example of cottontail durability appears in Rue's book, *Cottontail*. "Everything pales in comparison with an accident that befell a cottontail rabbit in Sussex County, New Jersey, in the summer of 1963," Rue writes. "Rutgers College of Agriculture maintains an experimental farm there. In the course of experimenting, hay is cut green and baled at once to preserve the nutriment and food values that are lost when the hay is dried naturally. To prevent the hay from spoiling, the bales are dried by forced heat. The bales are left on a farm wagon, which is placed in a drying barn. There a large canvas cover pulled over the wagon and its load serves to hold the heat in. Then 180-degree heat is blown through the hay for fourteen hours.

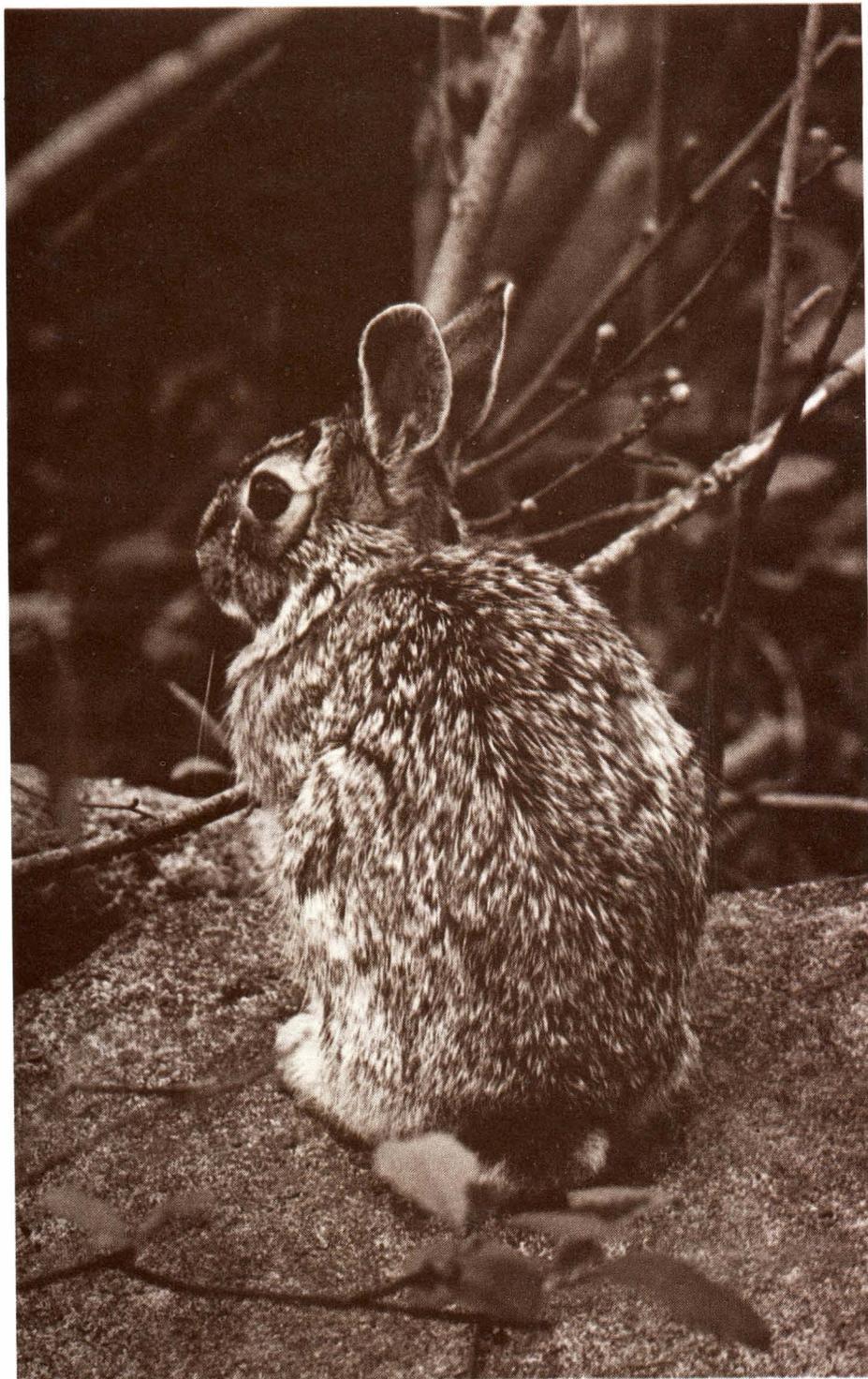
"On this occasion, as the cover was removed from the cured hay and the bales were being moved, one of the men noticed a rabbit's foot sticking out of a bale. When he touched it, the foot jerked. Calling to the rest

of the crew, the man opened the bale and the rabbit jumped out. After a chase the rabbit was caught and given to the operator of a wild animal farm in the area. This rabbit had been run through a baling machine, compressed into a bale, toasted at 180

degrees for fourteen hours and was able to live through it all without any apparent ill effects."

Incidents like these, though little known, show that the cottontail isn't always the frail timid creature it's cracked up to be.

Cottontails thrive along the edges of rough, tangled brushy areas.



Leonard Lee Rue

Kansas Fish & Game Interview

As sure as the sun is going to rise, it's time again for an article on the Kansas Forestry, Fish and Games Law Enforcement Division. On a regular schedule you are kept up-to-date on the activities and duties of a Kansas game protector and the important role they play in the overall conservation program of the state.

This being the year of the bicentennial and all the nostalgia that goes with it, it seemed appropriate to turn back the clock to another time in the history of the Fish and Game Commission . . . a look at what the game warden did then.

Staff writer George Anderson accompanied by regional law enforcement supervisor Jack McNally traveled to Salina for a conversation with such a man. James "Jimmy" Carlson, Sr., who retired in 1961 after twenty-eight years of service with the Kansas Forestry, Fish and Game Commission.

Jimmy, a native of Saline county, began his career as a State Game Warden in 1933. Prior to his appointments he operated sporting goods and book stores in Salina and Abilene. During World War I he was a gunner on the Warship U. S. S. Minnesota. Jim and his wife Angeline still reside at 115 South 10th Street, Salina, where they have been in residence since their marriage in 1931.

If the depression, dust bowl and a world war can be counted as criteria for the "good ole days," then Jimmy Carlson's career as a game warden was right in the thick of it. Good or bad Carlson was there and recalls the era this way. . . .

Anderson: Jim, lets get the obvious question out of the way first. Just how young are you?

Carlson: I'm eighty.

Anderson: What year did you start to work for the department?

Carlson: Well, lets see, it would have been in August of 1933. Alf Landon was governor the year I signed on.

Anderson: Jim, the game protectors working today are assigned a certain district to work in. Some of them have one county and others might have two or three. Did you have an assigned area to work in when you started?

Carlson: Yep! When I started my district was ten counties along the Nebraska border and I helped work in six or seven others. There was only twelve wardens in Kansas then so anyway you cut the state up you had a bunch of ground to cover.

Anderson: You must of spent a lot of time driving. What kind of vehicle did the state issue in those days?

Carlson: "Jalopies," at least that's what I called it. It was really a Model T without a heater and the office wouldn't buy one either so you had to wear a lot of clothes to keep warm. . . . I finally saved four dollars and put a heater in myself.

Anderson: What kind of a salary did they start a game warden at when you went to work and why did you want to be a warden?

Carlson: Started at ninety dollars a month and a small expense account. We even saved a little money too, but hamburger sold for 25¢ for three pounds so your money was worth a little more. I didn't really want to be a warden, it was going to be a temporary job until the depression was over. I had a little book and sporting goods store but couldn't make it during the depression years, and that temporary job lasted about 28 years.

Anderson: Times were tough then Jim, did this cause a warden more problems and how did you handle it?

Carlson: Had a bunch of violations during the 30's. People were out of work, no money and had families to feed. We warned a lot of 'em but when they went to court they got fined. Usually only five dollars, but that was a heck of a lot of money in those days. Worked a lot of seven day weeks and was gone from home sometimes a week or two at a time.

Anderson: What was the biggest headache Jim?

Carlson: Traps in the rivers! The Saline was full of 'em. They were really after the fish. Couldn't catch everyone so we pulled a lot of traps and nets out and burned them or hauled them to the office. I think one of the biggest loads of illegal traps and gigs came from my district. Filled a whole truck. I think you guys have educated them, don't see traps like that anymore.



"When I started back in '33 I worked ten counties along the Nebraska border."



"Deer poaching! I never seen a deer in Kansas until the mid-forties."



"A pet project of mine is to see the channel catfish declared as the state fish of Kansas."

McNally: Maybe not that many Jim, but a few still try it. Had several cases the past several years on gill nets in the reservoirs that involved nets hundreds of feet long and tons of fish. It's generally the same bunch of people running the nets and selling the fish. They don't learn too fast, most of them have been arrested several times by our game protectors and some of the bordering states have had them also.

Anderson: What's one of the best investigations you worked on, Jim?

Carlson: That would be a deal like Jack was talking about. Had some illegal netters using the river over by Enterprise. Caught 'em early one morning after a two-week stake out. That net was so full of fish it almost sunk the boat they were using. They were selling the fish too.

Anderson: Did anyone fish legal Jim, sounds like you had your hands full.

Carlson: Now don't get the idea that everyone was breakin the law. They weren't. There was a lot of good, law abiding folks fishing the rivers and streams during this time and got just as upset with the violators as we did. To be honest, I think 'Mother Nature' was the biggest enemy of the fish in the early thirties. The dust storms of 1934 were responsible for the loss of fish by the thousands. The fields would become covered by the heavy dust and when it did rain it would wash it in the river and suffocate the fish. Hell of a deal.

Anderson: Did you try to restock the rivers with fish?

Carlson: You bet we did. There wasn't a lot of lakes during my career but we tried to keep the creeks and rivers stocked with fish. Mostly catfish, bass and crappie. The fish were hatched in Pratt and a truck loaded with buckets of fish would come around to each area. We carried a lot of those buckets to the rivers and poured the fish in. Before my time they use to stock some fish from a railroad car called "Angler 1." They would stop the train on the bridges and dump the fish in the creek or river. Anyway that's what the 'ole timers' told me.

Anderson: Jim the game protectors today spend a lot of time on public programs. They give talks to schools, civic clubs, sportsmen groups and con-

duct hunter safety schools. Did you have much public relations work?

Carlson: More than you'd think. A license cost a dollar and we had to convince the public that they should buy one and support our conservation programs. In 1934 the federal government came out with the first duck stamp and that required some more education to make the people aware of what it was and the need for it.

Anderson: Was the "market hunting" era over with before you came to work?

Carlson: "Cheyenne Bottoms," man that was a place. I worked the bottoms before it was fixed up to what it is today. The first time was in the early 40's during World War II, I worked all day and found out later that they were dropping bombs in that area for practice. Scared the hell out of me. They would haul the wardens out into the marsh in a hay wagon and drop them off to work and check hunters. I remember once the wagon fell into an old bomb hole on the way to pick us up and got stuck. Didn't find me until long after dark.

Anderson: Any deer poaching problems Jimmy?

Carlson: "Deer poaching, I never seen a deer in Kansas until the mid-forties. I couldn't believe my eyes the first time I saw one and when I read that Kansas was going to have a deer season, I laughed. Sure didn't think there were that many deer in Kansas but guess there was.

Anderson: Were there more pheasants and quail in your day Jim? That seems to be what everyone says.

Carlson: Well, I hate to say it but there was. Lots of birds in the 40's and 50's. There had to be, I could even get my limit and I'm a fisherman not a hunter. There has been a change in farming since my time and a lot of land development which has to affect the birds. I think this SASNAK plan you fellows are working on will help, but it's gonna take some time.

Anderson: What's the biggest change you've seen over the years Jim? As far as fish, game and sportsmen are concerned.

Carlson: Hunting and fishing have both increased but nothing like fishing. Everyone fishes now—There are so

many lakes and different kinds of fish stocked in them that fishing is the major attraction for most of the people. When I worked the channel cat was the best fish to catch, and still is as far as I'm concerned. We didn't have Northern Pike, Stripers and the like. I did a lot of census work on Kanopolis reservoir but this kind of fishing was just gettin' a good start when I retired. . . . Not much boating then either, but look at it now.

Anderson: Jim is there anything you would like to see done, any suggestion?

Carlson: A pet project of mine was to see the Channel Catfish declared as the state fish of Kansas. We don't have a state fish yet. Several attempts have been made over the years to have the Channel declared the state fish but nothing ever came of it. Sure would like to see that fish given the recognition it deserves. That ole catfish has done a lot for this state.

Jim loaded my car with a box full of material he had kept over the years. of old newspaper clippings and variety of material he had kept over the years. In checking some of this memorabilia I may have discovered what the good ole days was all about. Newspapers advertising bacon for 15 cents a pound, eggs at 18 cents a dozen, 5 bars of soap for 23 cents, 2 packs of cigarettes for 25 cents and last but not least a car deal. On Jan. 29, 1947, J. C. Carlson accepted delivery of a 1947 delux tudor sedan on behalf of the State Fish and Game Commission. The original bill of sale indicates this new car equipped with a steering knob, defroster fan, heater and labor to install heater sold for \$1358.23. Less the trade-in of a 1942 model car for \$874.00 left a balance of \$483.23 . . . Now that's trying to trade with ya!

Maybe in forty-years someone will be looking over some papers from 1976 that another game protector has collected. They'll see ads on bacon for \$2.15 a pound, eggs for 70 cents a dozen, 25 cents for a bar of soap, \$1.10 will buy 2 packs of cigarettes and game protectors pickup only cost \$5,500.

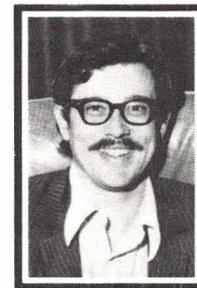
Sure hope they don't lean back in the chair and say, "Boy, those were the good ole days!"



The Kaw Speaks

By Bill Scott, Staff Writer

A BUSINESSLIKE, throaty hum from the 40 horsepower Evinrude confidently tossed its challenge at the moist early morning August air. Breezing southward, the sun's fiery tongue was only fitfully licking at us. Fanning behind us was a sinewy wake, rolling in an ever-widening frothy "V."



Scott

Sitting expectantly in the 16-ft. pram were Gary Hine, formerly a disc jockey at KJCK-radio, Junction City, and now cameraman with Manhattan Cable TV; Leo Dowlin, northeast regional fisheries supervisor for the Commission, and me.

It was the first time the Kaw's fish population had been intensively sampled by the Kansas Fish and Game. The investigation was shot through with a sense of urgency. Leo and his men were painfully aware of what had happened to the Missouri River's fish population after navigation came and channelization began. And they knew channelization is an imminent threat to the Kaw. As Leo said, "The Missouri was engulfed by navigation—today, the fish are all but gone. What it did was convert a broad, flat

plain into a narrow ditch." He went on, "we wanna get a handle on what the Kaw's got so we'll have something to hang our hat on when they try to convert the Kaw to navigation."

I'm not a bit ashamed to admit there were tingles tripping up and down my spine. It was exciting. Wonder how exciting it would have been after I'd run stream surveys for just about the whole summer and been away from my family much of that time as the fisheries boys had?

Leo and his men were tired. They'd set nets and dragged seines through streams in northeast Kansas you and I have never heard of. They'd strained themselves struggling with their boats up and down steep slopes where only mountain goats go. They'd stumbled carrying "Grandpaw"—a 150-lb. generator for the shocker boat—as they slogged out of marsh after marsh.

And what was their purpose for doing all this? Because, Mr. Sportsman, they want to back up their statements with data—that the Kaw has a priceless fisheries resource. They're away from home and breaking their backs to investigate, so they can argue intelligently against agencies that are undermining your hunting and fishing. And the same is true for other Commission professionals.

Do you begin to see why the Fish and Game must gather data? Emotionalism without data is sound and fury, signifying nothing. Data without a measure of emotion denies the deep significance of issues at stake.

The next time you wonder what the biologists are doing out there, remember you are witnessing a desperate battle to protect what we have left.

Now they were tackling the Kaw—most fabled river in all of Kansas, named for the Kanza Indians which also loaned their name to our state. The mysterious Kaw has a defiant attitude that has a considerable amount of bluff behind it. In that respect, it's a little like the hognose snake puffing and hissing to warn off potential harassment.

There's a difference between the Kaw and the hognose, though—the Kaw is not all bluff. There are teeth hidden in its jaws.



Fisheries biologists sample the Kaw River's fish population with hoop nets.

I know from personal experience.

The Evinrude slowed to a clear-voiced hum. Already hard at work was Jim Goudzwaard, Perry Reservoir biologist. Jim was crouched on a sandbar, bent over an imposing array of bottles in his Hach DREL Engineers Kit. Gary, Leo and I approached.

"We're invadin' you, Goudzwaard," Leo called. "Omigosh," and quickly straightened his hat with "Fish Squeezer" emblazoned on it. As Gary spread an air mattress under the Cable TV's "Rover," Jim prepared to test for oxygen content. He waded into the Kaw and filled one of the bottles.

The Modified Winkler Method began. With Gary's Cable TV Rover silently recording it, Jim added two chemicals to the Kaw's H₂O. Quickly, it turned bright yellow. "High oxygen content," Leo said. "We expected that. Most streams do. Moving water is constantly rolling and exposing itself to oxygen." We embarked and moved on. Jim remained and tested for alkalinity, turbidity (muddiness), chlorides, phosphates, nitrates and other substances.

Working the north shoreline of the Kaw was the shocker boat. Don Gabelhouse and Tom Berger, district biologists, were manning the old-looking critter.

Tom was perched on the bow of the 14-foot craft, net poised. A guard-rail on either side protected him from spills. Two electrodes dug their fingers into the Kaw's four-knot current.

"Grandpaw" generator was doing an effective job, despite the fact Gabelhouse was fighting to maneuver the shocker against the current. Don was circling out into the river and coming back in for another pass.

Pass after pass, pile of driftwood after pile, yielded fish. Even though the shocker was designed primarily to test largemouth bass populations in state lakes, rough fish in particular were being collected.

When the current hit them, the fish were drawn to a positive pole and surfaced, swimming awkwardly. Tom, with deft grabs of the net, pitched them into the live box.

"Hey Tom! There he goes!" Don hollered. A big river carpsucker was rolling and the "Epic Carp Chase" was on. Skillful boat handling and quick hands swooped up the five-to six-pound carp to its new home.

"A contact switch is under the operator as a safety feature," Leo pointed out, "and the boat operator has a safety switch as well."

Only stunned temporarily, all shocked fish were later released.

Puttering down the Kaw, we found that Rick Hunter and Ron Walter,

Pomona and Melvern Reservoir biologists and Roger Vancil, summer aide, were also having good luck.

Using two types of trap drifts (a hoop and fyke) set below drifts, the boys pulled out several flatheads in the four-to-six pound class and some smaller channels. The trap acts like a funnel—the fish get in; they can't get back out. Again, they were released unharmed after data collection.

"Numbers of shad, a food fish, are a little scarce in the Kaw," Leo said. "We've got a lot of minnows, though, and we aren't seeing any of the predator fish undernourished. The channels, flatheads, largemouth bass and white bass are in typical shape. They do grow slower in rivers because the food isn't as available as in lakes and reservoirs. Rivers have less shallow,

pooling water for forage species like shiners, shad, and minnows to develop in."

Last operation of the morning was Berger and Gabelhouse dragging 25-foot seines against the Kaw's four-knot current. Both big, strong biologists, Gabelhouse looked like he could have thrown the seine across the river.

Three of four passes yielded white bass, red shiner, sand shiner, bluntnose minnow, green sunfish, longer sunfish, and suckermouth minnow. Earlier forays had yielded drum, smallmouth buffalo and longnose and shortnose gar.

There are lots of different kinds of fish in that Kaw! Leo later reflected, "We didn't get anything we didn't expect to. There's a heckuva channel cat population in there—we know

that when you an get a bite almost every cast, but the sampling technique we were using doesn't pick 'em up very well."

Talk about "picking up." When we headed back to the K-177 viaduct immediately east of Manhattan to pick one of the outfits below the bridge, one of the wheels of the boat trailer dropped into a gaping hole.

We were looking and groaning inwardly when the boat's entire side simply began rising like a balloon filled with helium. Gabelhouse had grabbed the boat and lifted it bodily!

"Ya don't need a jack with a horse like this around!" shouted Berger, shaking his head disbelievingly.

What a fisheries resource will be lost to Kansas sportsmen if channelization begins to chomp. Thanks to the research conducted by Leo and his men, your fishing in the Kaw may be saved. Similar efforts are being conducted across the state for you.

The Kaw does have channel cats, but the river has teeth, too. Even though it's shallow, watch yourself in that current in a jon boat with little free-board. Less than three weeks after the netting operation, my fishing buddy Al Zentz and I were in a small pram in the same area. A channel going better than nine pounds grabbed his hunk of chicken liver next to a drift.

We netted it and drifted down to show the other boys. We slammed crossway into a logjam and within three seconds the pram dropped to the bottom of the river. We grabbed the drift as we went by, and hung on like a couple of drowning rats. Life-jackets being "readily accessible" wasn't enough in this case.

Jerry Dishman and Harold Decker plucked us from the Kaw's chilly water. Those 2½ hours back to the Blue River access area was a long, long trip.

Al kept moaning, "What a way to lose a channel!"

But he went back the next day—he stayed on shore this time—and caught a five-pounder.

The Kaw has fish.

Lots of 'em.

The Fish and Game's gonna try to keep it that way for you.

Bill Scott



KANSAS FISH & GAME
SUBSCRIBERS RESPOND

PRATT--Orders are pouring in for the first subscribed issues of KANSAS FISH & GAME magazine.

During the past month, more than 2,000 orders, with checks attached, have come in according to Leroy Lyon, chief of the Information-Education Division for the Kansas Fish and Game Commission.

As voted by the five-man Kansas Forestry, Fish and Game Commission, the magazine will be converted from a free publication to one which is available only on a subscription basis. Effective date for the change is July 1, 1976.

While readers currently on the free mailing list will continue to receive the magazine free of charge until July 1, new names are only being added upon payment of the appropriate subscription fee.

"As an extra bonus we will also send the remaining free issues to new subscribers provided we receive a check with the application form," Lyon said. "But if they aren't willing to pay for at least the first year's subscription, we simply will not add them to our mailing list."

As was provided in the Nov.-Dec. issue, the next two issues will contain subscription forms for readers to fill out and return to Pratt headquarters with either personal checks or money orders. The subscription rate is \$3 for one year, \$5 for two years, and \$7 for three years.

Under the subscription rate, the magazine will continue to be published six times a year, according to Vic McLeran, magazine editor.

"We anticipate more pages and more inner color photos," he added. "The content and editorial style will remain roughly the same."

The editor said there will be no advertising and the staff will continue to slant articles around the Kansas outdoors as well as informing readers of agency programs and operations.

The magazine was judged third best wildlife conservation magazine in North America at the 1975 conference of the American Association of Conservation Information in Portland, Oregon.

\$100

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**DONATIONS FROM CONCERNED SPORTSMEN ARE
NEEDED AND WELCOMED. THANK YOU.**



Royal Elder, hunter safety administrator, expresses appreciation to Larry Jones, right, vice-president of the Coleman Company. Coleman donated 35 target traps for Kansas Fish & Game Commission's hunter safety department, one of which is shown in the background.

PRATT--The Kansas Firearms Training Program was greatly improved with a contribution of 35 target traps to be used for hunter safety instruction.

Royal Elder, hunter safety administrator for the Kansas Fish and Game Commission, announced that the new equipment had arrived at the Pratt headquarters. Designed for CO-2 and pneumatic air guns, the targets will be stationed at the regional Fish and Game offices, district offices and strategically located cities.

Valued at approximately \$300 each, the target traps were designed and manufactured by Crossman Arms Company, Inc. of Fairport, N.Y., for the U.S. Air Force. This firm is a subsidiary of the Coleman Company of Wichita. Being surplus items the training devices were donated by Coleman to the Commission.

Each trap contains five targets and is equipped with a back-drop shield that stops the pellets and collects them in large canvas bags underneath. It is equipped for both indoor and outdoor shooting and can be used effectively at distances of 18 to 33 feet. An electronic switch is used to flip the target for instantaneous shooting.

"We wish to express our appreciation to the Coleman Company. The target traps will enable many young people to fire a gun who would otherwise be unable to do so," the hunter safety administrator said.

The traps will be delivered in the near future to the assigned locations and will be available to hunter safety instructors to check out for use in their classes.

STATE EARMARKS BUFFALO
FOR BI-CENTENNIAL SALE

(released Oct. 15, 1975)

PRATT--A change of procedure in the sale of surplus buffalo has been announced by the Kansas Forestry, Fish and Game Commission.

Commissioners recently approved a plan to reserve and sell its surplus buffalo for bi-centennial celebrations in Kansas during 1976. Any community, civic club or organization planning a celebration in conjunction with the bi-centennial are eligible to make application for a buffalo on a first come, first served basis. No more than two buffalo will be reserved for any one group.

"In the past, surplus buffalo have been sold to anyone who made application and was selected by a drawing," said Bill Hlavachick, Pratt, Technical Services Biologist. "We felt this change might be one way for the department to make a contribution in honor of the nation's 200th birthday.

Any group interested in applying for a buffalo can contact the Kansas Forestry, Fish and Game Commission in Pratt. Applications are being accepted at the present time.

-GA-

DUPLICATE CASUALTIES
STALK SPORTSMEN

(released Nov. 19, 1976)

JETMORE--A few hunting accidents are not uncommon on opening weekend of upland game season. But state game protector Jim Kellenberger did a double take Nov. 9 when he investigated two casualties in Ford County.

In one accident, Bob Uden of Ark. City was injured when a shotgun pellet hit the center of his left eye. His hunting companion was swinging his shotgun around to bring down a pheasant and in the excitement, missed his intended target and hit Uden. The accident was reported to Kellenberger at 10 a.m. The party was hunting in an open field.

The accident victim received emergency treatment from Dr. Luther Fry, a local physician, then was taken to KU Med. Center.

In another open field in Ford County, Charles W. Giffin of Lawrence and another hunting partner were also hunting pheasants and sure enough a stray pellet struck Giffin in the center of the left eye.

Giffin was treated by none other than Dr. Fry, who by this time must have thought his medical reports were crossed up. Incidentally, Giffin, like Uden, was referred to the K.U. Medical Center.

What time was this accident reported? You guessed it! Ten o'clock Sunday morning.

-PB-



**save
our
wetlands**

**National Wildlife Week
March 14-20 1976**

JOIN AND SUPPORT THE NATIONAL WILDLIFE FEDERATION AND STATE AFFILIATES

SOUTHWEST WILDLIFE
HABITAT CHANGES
IN KU SPACE STUDY

DODGE CITY--Center pivot sprinkler irrigation has become an increasingly important agricultural practice in many parts of the Great Plains. In southwest Kansas for example, the number of these systems in operation has increased dramatically.

The Kansas Fish and Game Commission, in cooperation with the University of Kansas, has made a study to determine the increased use of circular irrigation systems. Regional game supervisor Bill Hanzlick has compiled some useful data on the results of this study.

"Center irrigation operations are taking out a lot of native prairie in the southwest part of Kansas. This prairie is probably the only stronghold of the lesser prairie chicken," Hanzlick noted.

The purpose of the survey was to monitor this change in vegetation through the assistance of the KU space lab. They have provided a map showing 14 southwest counties and every circular unit located in the area. The results of this study leave little doubt that modern farming practices, such as circular irrigation, have had an adverse effect on wildlife.

"Habitat change and habitat reductions have been the prime cause of wildlife fluctuations. Consumers are demanding that the farmer provide more red meat and corn. This means more land goes into production. Our problem is trying to reverse the trend and to reduce this loss of habitat," he explained.

The KU research project involves the use of space technology in the preparation of aerial photo maps of southwest Kansas. It is funded primarily from grants obtained through NASA and other space-related agencies.

The KU space lab team utilizes photography obtained through various space satellites. These aerial photographs show clear details of every circle irrigation unit and even individual prairie dog towns.

"We think this is going to be one of the important tools in finding out about land capabilities, vegetative changes and habitat destruction," he pointed out.

In another space related study with the KU lab, the water levels of the Arkansas River are being observed. There are indications that irrigation farming has adversely affected riparian timber along the Arkansas.

"A lot of big game lives along the Arkansas River in southwest Kansas. As the irrigation systems are taking more water from the underground strata, it is affecting the flow on some of the rivers in various intervals. If the Arkansas stays dry for a year or two, some of the shallow rooted timber dies. This will affect the wildlife populations that live there."

Hanzlick said good populations of deer and wild turkey could conceivably decline. The space lab has prepared a detailed map of the Arkansas and its habitat changes are being observed.

Another space project being carried on by the Fish and Game Commission in cooperation with the Bureau of Reclamation involves the control of lake bed vegetation on federal reservoirs in western Kansas.

"Norton, Cedar Bluff and Webster are irrigation reservoirs and water levels fluctuate drastically. Webster will drop 8 to 10 feet annually. It is not unusual to have a pool 30 feet below normal, then two years later have it back to normal water level.

When these reservoirs are low, there is an invasion of woody vegetation that becomes impenetrable to both hunter and wildlife. The Bureau has provided space photographs showing the problem areas.

With this information, the Fish and Game Commission has developed plans to mechanically open up this vegetative cover. This will provide better wildlife habitat as well as better upland and big game hunting for the sportsman.

At Cheyenne Bottoms Waterfowl Management Area, imagery photos are being taken of vegetative problems such as cattails. These photos are taken from U-2 planes and provide even more clarity than those taken from satellites.

"The space lab has provided us with an aerial mosaic of Cheyenne Bottoms showing the current vegetation. This will help us determine how to improve the marsh and the waterfowl resource that comes there," Hanzlick said. The KU space lab has recently received a grant from NASA to continue this project.



PRATT--A recent effort to trap and transplant wild turkey into new regions of Kansas has been highly successful, according to game biologists of the Kansas Forestry, Fish and Game Commission.

The trapping operation was recently conducted from a large wintering flock of the big birds in Comanche county. Trapping efforts during the winter of 1975 were unsuccessful due to bad weather.

"We were able to secure 48 birds with one drop of the net," said Kent Montei, Hays, game biologist. "The turkeys were in excellent condition and were released the same day at their new locations."

Stocking sites are preselected by biologists prior to any release of birds. The areas selected must meet certain requirements such as large roost trees, available food, nesting cover and other habitat requirements.

The Comanche county birds were transported to release sites along the Arkansas river in Edwards county; Thompson creek in Kiowa county and near Leon in Butler.

Game biologists anticipate additional releases during the next month if trapping operations continue to be successful. (released 1/8/76)

Violators of Kansas fish and game laws were fined a total of \$79,565 in 1974. This includes court costs. All fines collected for fish and game law violations are credited to the State school fund.

KANSAS IMPOUNDMENTS
RECEIVE 5.5 MILLION FISH

PRATT--Kansas public lakes and reservoirs were stocked with more than 5.5 million game fish during 1975, according to Verl Stevens, fish hatcheries supervisor of the Kansas Fish and Game Commission. He said production was somewhat higher than in 1974 for some fish species.

More than 627,000 fry, shorts and fingerling size channel catfish and largemouth bass were stocked in state fishing lakes, reservoirs, municipal and county lakes. The federal reservoirs in northwest Kansas received 160,000 largemouth fry from the Cedar Bluff National Fish Hatchery.

A significant increase in striped bass deliveries was made in 1975, Stevens said. Reservoirs were stocked with 321,000 stripers. This was three times the number stocked in 1974. Milford Reservoir received 5,300 smallmouth bass fingerlings from the Cedar Bluff hatchery.

In the first production of redear sunfish in recent years, more than 54,000 fingerlings were stocked in state fishing lakes.

Following is a breakdown of numbers of fish stocked at the various types of Kansas fishing impoundments: state lakes 575,800; federal reservoirs 4,460,500; game management area ponds 13,400; municipal lakes (city, county and club owned) 295,000; farm ponds 472,000.

-PB-

EXTENSIVE IMPROVEMENTS
AT PRATT FISH HATCHERY

PRATT--The Pratt Fish Hatchery has received a facelift in recent weeks that will improve hatchery fish production and help with some management problems, according to Don Patton, hatchery manager.

A 105-foot well was drilled to improve the water supply and make the ponds independent of river flow. General contractor on the well was Lake Western Inc. of Wichita. A pump being installed in the well is capable of pumping 2,000 gallons of water per minute.

The well is located adjacent to a new two-acre rearing pond constructed recently by the field services division. This pond is 375 feet long by 250 feet wide with an average depth of about four feet. Patton said this pond will eventually serve as a reservoir to furnish water to the other rearing ponds.

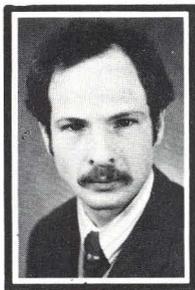
Several of the original ponds have been drained and are being cleaned out as part of the fall and winter improvements at the hatchery. Work includes removal of silt from pond bottoms, rebuilding and widening of existing dikes and reseeding of the reconstructed levies.

Beagles and Bunnies

By Bob Wellborn, Staff Writer

THE BEAGLE ONCE hunted with English nobility. His masters included Henry VII and other 16th century English noblemen.

Since then beagles have become one of the most popular American house dogs and hunting dogs. They have been the pets of at least one American President, Lyndon B. Johnson. His pair of beagles, Him and Her, were the principle subjects in an ear-pull-



Wellborn

ing photo which was printed in newspapers throughout the nation.

The beagle is a winner from many standpoints. His size, temperament and tractability are the best of any breed of dog in America. He is a package of good points. He is an excellent house dog. Being a hound, one of the smallest, he exhibits the usual hound independence, but responds of affection and is known to

be a great pet for children. He is at the same time a great rabbit dog.

He is good at his job of rabbit hunting because he does not move the rabbit fast enough to drive him to ground. The rabbit will circle in an effort to get back to his home territory while the determined and slow-moving beagle sticks to the trail, howling and sniffing.

"To pursue relentlessly or tenaciously" is a variation of the definition of hound.

Gary Penn, who raises and trains beagles with his partner Jim Kidd in Junction City, is the epitome of this kind of rabbit hunting. His easy going, quiet nature, soft voice and patient way of doing things seem to be the requirements for hunting with Goldie and Joe, two of his beagles.

The dogs are patient hunters, they follow the scent tirelessly, sometimes howling on the trail until they lose their voices. They may never see the rabbit they are following until Penn takes it, if then.

"I usually watch the rabbit go by.

Sometimes they're just hopping along 20 or 30 feet in front of the dog, you know, like they were going to eat or something. I can let the rabbit pass, and then watch the dogs follow the trail. I know where the trail is and which dog is following it more closely." Penn said.

Penn is more interested in his dogs than taking rabbits.

"You can go out and kill 20 or 30 rabbits, but that to me is not what the sport is all about."

"You want to watch your dogs to see if one is just jumping over a log because the other did, or if he's really on the scent," Penn said.

The quality of a dog is many things. "There's things about just looking at a dog that you can just tell."

Looking and listening are important in hunting with beagles. Goldie, Penn's golden beagle, is a nine-inch dog that could be a champion field trial dog. The listening comes in when she is on a trail. She has a high, short howl called a chop mouth, considered a good quality in beagles. Her

howl has all the qualities that makes any hunter's blood run just a little bit faster. "It's as good as any music," says Penn.

Joe is a younger beagle of the more common black and tan variety. His howl is longer, lower, more melancholy.

There are four types of beagle in the eyes of the trainer; hunter, field

the brush, wherever the rabbit went, the dog has to go.

The origin of the beagle is uncertain. Some contend he was originally a cross between the harrier and the South of England Hound. What is generally agreed about him, however, is that in 1850 the Rev. Phillip Honeywood gathered an exceptional pack of the hounds in Essex, England, from

piles where you can't scare them out. They won't jump like they used to. With a dog you can get them out," he said.

A good dog will sell for from \$50 to \$100, depending on training, sex and the dog's blood lines. Pups will sell for from \$25 to \$35.

The major factor in choosing a dog is the owner's personal preference. some owners may be color conscious, preferring the black and tan beagle, rather than the newer golden beagle. The size of a dog, whether his fore paws point inward, whether his ears will meet at the end of the dog's nose, all of these are fine points showing what may be a good dog. But for the hunter, the main question is, does the dog find rabbits? That may be difficult to see.

Alertness is paramount in choosing a hunting or trial beagle. He also needs an acute sense of smell, and a good howl is another consideration. These factors vary from pup to pup, some are better than others.

Two basic commands for a rabbit hunting dog are "tally-ho" and "down."

"You have to be able to control your dog," Penn said. "When you hit rabbits you have to be able to call your dog, 'tally-ho'. If he's on a rabbit he won't come off it." Penn said he trained his dogs to be able to pick up a rabbit trail by their own hunting or by his pointing to a rabbit trail after calling tally-ho. The "down" command is essential in controlling an otherwise uncontrollable dog on a trail.

"The important thing is to be able to get your dog to stop even though he's on the trail."

"When you say 'down,' you've got to be close enough to the dog to walk over and pick him up. Goldie and Joe won't wait, they're huntin', and they don't want to stop," Penn said.

Handling a beagle is an exercise in common sense. The right tone of voice and consistent discipline insure the cooperation of the dog.

Beagles are eager hunters. If on a trail they will not be stopped, not for very long. They cannot be chased. They run faster than most men and will run if they are on a trail and the

Bob Wellborn



The beagle's size, temperament and tractability make him a package of good points.

trial, show and pet. Why are some dogs hunters while others are house pets? It "just works out that way, helped along by selective breeding.

"He's gotta have some instinct, and a lot of that's in the bloodlines, said Penn.

Hunting dogs have a lot of staying power, the desire to keep their noses to the ground, find the scent of a trail and then keep following it until the hunter takes the rabbit or the rabbit finds his hole.

They have to follow that trail exactly as the rabbit made it, under

which the modern beagle grew. They were imported to the United States about 1870. Now beagles are used for hunting rabbits and squirrels in eastern states such as Ohio, Pennsylvania, Tennessee and Kentucky. Beagles in those states are as big a business as pointers and retrievers are in Kansas, but beagle training and breeding may be a growing business in Kansas.

Penn says the method of hunting rabbits in Kansas has changed, that rabbits are in a different kind of cover.

"Now rabbits are in thick brush-

handler chases them. They have to understand the command "down" and then must be treated calmly.

Penn's dogs are nine-inches high. They are in the 13-inch class. He has chosen smaller dogs because they are slower and more thorough in following a trail. The 15-inch-classed-dog may be faster, but speed in hunting is a personal preference that comes more into play when working with field trial dogs competing for speed and thoroughness in covering a trail.

Most people hunt rabbits with a .22 rifle. The rifle is quick and easy to handle. With a dog behind the rabbit or a dog jumping out of the bush close to a hunter, the choice of rifle changes to .410 shotgun.

"A dog might be able to take a few stray pellets, but a rifle slug would kill him," said Penn.

Hunting dogs are gun dogs. They can become gun-shy like any good pointer. Penn recommends using two or three dogs with no more than four hunters.

"You want to be careful about shooting over a dog. If he's gun-shy—boom—one shot and he's gone," he said.

"Dogs get traded and passed around by, you know, guys who are trying to get better dogs. They'll say 'I'll give you my dog and \$50 for your dog,' so the dog sometimes gets spooky.

"My father has a dog that is a field champion, he won't hunt for anyone else."

Dogs have been known for as long as anyone can remember as man's best friend, and anyone who has taken the time to raise a dog properly knows what loyalty is.

"You have to know your dog and realize he has good days and bad days, and the dog has to know you. Once he knows how to hunt, you can teach him to hunt your way."

How do you train a dog to hunt? Sometimes there are no ways. If the dog is not a hunter to begin with, he may never be made into a hunter.

Training starts at six weeks of age. The pup is taken out with other hunters usually learns the hunting by example.

"My first dog, he was a natural, he started hunting before we tried to train him. He'd get down in brush-piles and crawl right into burrows. We had rabbits coming out everywhere." A dream sight for a frustrated rabbit hunter confronted with a massive brushpile he knows houses all the rabbits he can carry.

"Not all dogs are going to be hunting dogs, some may be great field trial dogs, other may be pets," Penn said.

Rabbit dogs usually do not hunt alone. They hunt in pairs or larger packs. As any team, the dogs have to be matched for speed. One dog hunting faster than the rest and can lead the pack, allowing the rest of the beagles to follow, howling when the leader does, sniffing the same trails, and fast dogs are not necessarily always on the trail.

mand "dead bird." This is not true with the rabbit running beagle.

As any bird dog, once the beagle

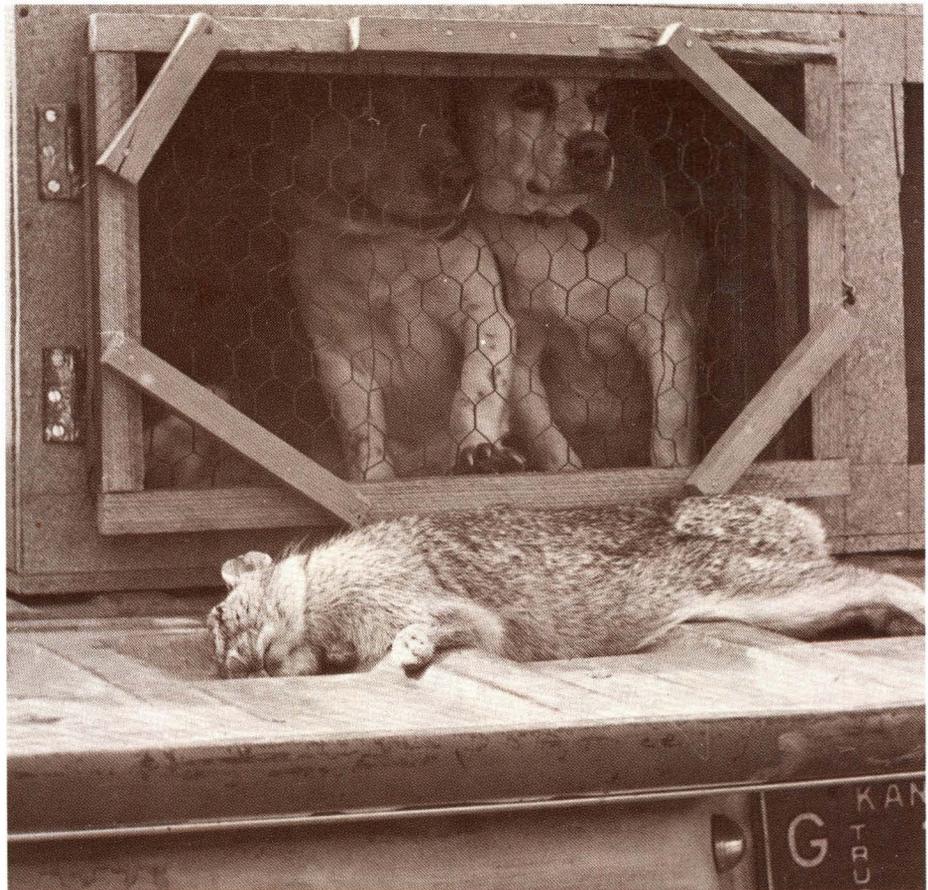
learns how to hunt, he needs to exercise his talent. Hunting beagles can be run at night. They howl when on a trail and the trainer simply has to follow the howling and pick up his dogs when he is finished running them.

A bird dog after hunting, pointing and never seeing the bird or the hunter drop a bird can get impatient and stop hunting. For the bird dog there is an object in mind, the com-

With the beagle's package of good points in training, his versatility in roles and his possibilities for competition, he seems to be an ideal dog.

Whether or not breeding, training and hunting beagle will be a coming sport in Kansas is a question only time can answer, but the guarantee of beagles as a business is proved by other states, and the possibilities for a new kind of hunting can only encourage the beagle business in Kansas.

Beagles are used for rabbit hunting extensively in the East and the sport is growing in Kansas.



Bob Vealborn

Cherokee Craftsman

By Paul Bocquin, Staff Writer

Downing has colorful memories in his golden years.

A CRAFTSMAN'S SKILL, whether in modern electronics or some ancient art, fascinates the average layman who is not so gifted.

Brice Downing, an 82-year-old Indian craftsman, lives in retirement on a farm three miles east and one mile north of Hudson, Kan. in Stafford County. But he has been getting some mileage out of his golden years by utilizing the ancient skills of



Bocquin

his ancestors, the Cherokees.

The octogonarian retains a colorful memory of his childhood in Oklahoma and later years in Kansas. He moved his family to central Kansas in 1937.

"We came from Allen, Okla. I was born in Indian Territory in what is now Cherokee County. They had log cabins and stone chimneys and they raised everything—hogs, cattle, range ponies. They raised all their vegetables and were pretty independent," he recalled.

"An early settler might buy 40 acres and the community would help him build a cabin. That virgin soil would make a bale of cotton to the acre. A bale brought \$96 and the seed \$10. Anybody who made \$1,000 in those days had lots of money."

Inflation was probably referred to only when filling a tire, according to prices still fresh on his mind.

"A pair of jeans cost 85 cents, khakis \$1.00 and shirts 45 or 50 cents."

Downing was living in Allen at the time of the oil boom. Oil was discovered in a shallow area at 2,700 feet. He was transferred to central Kansas by Standard Oil Pipeline after oil was discovered in that region. He started out "fireballing the steam engines" and worked his way up to pipeline diesel engineer.

He was employed 34 years by Standard in Oklahoma and Kansas and also worked two years in Texas for Sinclair. His first job after serving in World War I had been with the Indian Service.

"I took agriculture in school and could have gone to South Dakota as a government farm worker among the Sioux. But our mayor told me to go to the oil fields instead."

Brice Downing displays an Indian hunting bow and arrow made from Osage orange.



Paul Bocquin

His early years in Kansas reveal the hardships of the Depression.

"There wasn't any provision for housing oil fielders. They built a few company houses. We lived in Hudson five years. Then, we claimed this abandoned farm home. The foundation was nearly blown out of the ground and sand was blowing. Took the bulldozer 20 hours to round up the hill again. We hauled haystack bottoms to hold the sand down 'till the rains came, modernized it, built a deep well for our water.

"When the wife was living, we raised a big garden. We've got a lot of ornery friends who don't garden but they think they ought to eat when I do," he laughed.

A windmill fed duck pond is located on the premises. Ducks are retrieved with the help of his seven-year-old English Setter.

Land of the Cherokees

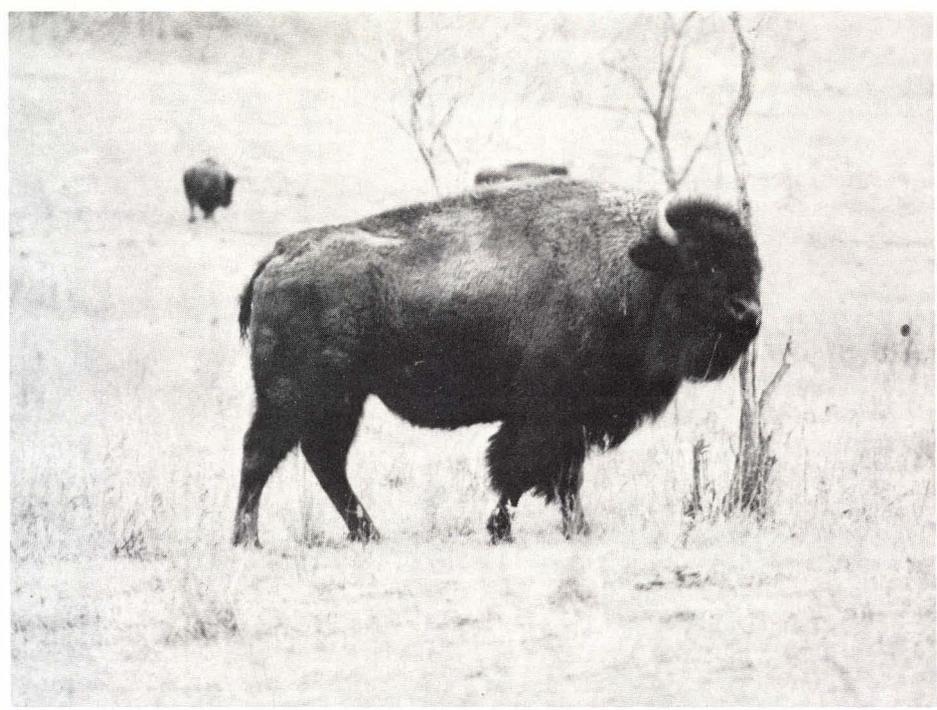
Downing, who is actually a three-quarter blood Cherokee and one-quarter English, has keen recollections of the land of his forefathers.

"When the white man first came to what is now Oklahoma, there were wild turkeys by the millions. They killed them by the hundreds and sold them at two bits apiece. Now, tur-

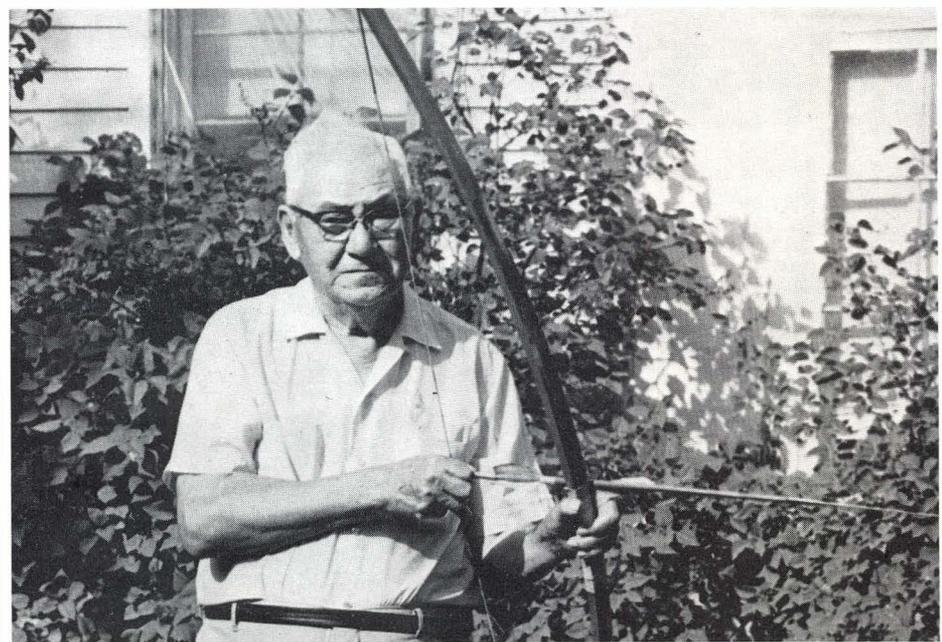
keys are protected and they are trying to get them started again.

"There were so many fish in the Illinois River—that's my old fishen' stream. When I was a boy, I had a two dollar boat. Now, they've commercialized it. Canoes and tourists are floating down by the thousands.

Demonstrating the proper way to hold the hunting bow, Downing takes careful aim with a spiked arrow.



Ken Stiebben



Paul Bocquin

"My grandpa said the fish would start upstream. They'd blockade the ripple and a bear would go out and get him one."

The Cherokees had seven chiefs in territorial days and one of them was Downing's grandfather, Lewis Downing. In Tahlequah, Okla., capitol of the Cherokee nation, Downing street was named after the chief.

He continued his recollections of fishing the Illinois River. "When I was a boy, the first fly rod I bought was ordered from Kansas City for \$3.60 and \$1.85 for a winding reel. That rod was split bamboo. The last account I had of them, they were selling for about \$20. But now, they use fiberglass.

"You can't find quietness enough down there to fish in the summer time. The paddle boats and the canoes are just all over. When vacations are over and school starts and it quiets down for about a week or two, I'm goin' down there and try it."

History books have recorded the tragic period when the Cherokees were driven from the Carolinas and Georgia into the present state of Oklahoma. Downing is quick to point out that they were civilized and educated people.

"They had doctors and lawyers. They opened a male seminary and female seminary just out of Tahlequah."

His mother was educated in the seminary for women and taught school for 25 years. The seminary for men was destroyed by fire. The state later purchased the women's seminary and today it is Northeastern State College with an enrollment of 7,000 students.

"When I left there 52 years ago, the population was 4,500. Now, it is 12,000."

The land of his forefathers, now a major tourist area, has changed. But he still enjoys going back there each year for Cherokee Nation Day. The Indian Village at Tahlequah is a special attraction to him. Here, many of the tribe still live and work in primitive surroundings comparable to their ancestors.

"Those full bloods speak broken English and don't like to talk with tourists. But I can speak their language," he said proudly.

Hunter and Craftsman

In addition to his garden and occasional travels, Brice Downing makes Indian hunting bows and arrows. He knows how to use them, too.

"I offered to show a fellow how to shoot a rabbit on the run, but he just looked at me," he said with a chuckle.

Downing is a marksman when it comes to shooting wild geese with his home made equipment. At a nearby marsh where thousands of geese gather, he waits quietly at daybreak while the birds circle an adjoining feedlot.

"They circle about three times before they land. You just hide in the fence row under cover. They might fly over you just about treetop high. Just shoot among 'em and you'll hit one accidentally. Say 'I picked out the fattest one.' That's the way to shoot a wild goose."

His skill as a bow maker is in great demand. "I'm about 12 bows behind. I've got four made. They all want 'em. I don't work at it steady. I'm retired. You take an old man that's worked in all kinds of weather and

raised a big family and he ought to have a little vacation in his old age."

Brice and his late wife raised three sons and two daughters. His oldest son lives at Drumright, Okla. and the other son teaches school in Oklahoma City. He now has 11 grand children and six great grand children.

Displaying a recent bow ordered by a customer to have 28 pounds of pull, Downing said he made it 34 pounds as the archer would gain arm strength with practice.

Cornstalk shooting, a traditional test of Cherokee marksmanship, is an annual event in Tahlequah for Cherokee Nation Day. The contestant aims from a distance of 80 yards, although the rules originally called for 100 yards. Stalks 30 inches in length are driven in the ground and spaced 18 inches apart. The marksman who hits the most targets scores the highest.

"I had a brother, a big man. He shot a 50-pound pull bow and could hit a stalk on the level at 100 yards."

His bows and arrows are of hedge-wood (osage orange) from eastern Kansas. The bows are cut from corner posts six feet in length, measuring

eight inches in diameter and without knots. He buys the post after it is split in quarters and the heartwood split out. Each quarter will make two bows.

"They make bows out of black locust, too, but I prefer the hedge. It takes about six months to cure this wood. There is a certain time of year to cut the wood," he explained. "You want to cut it when the sap is down. It will season, get hard and have the spring of steel."

To season, the wood is laid out in the sun and weather and weighted down to keep it from warping.

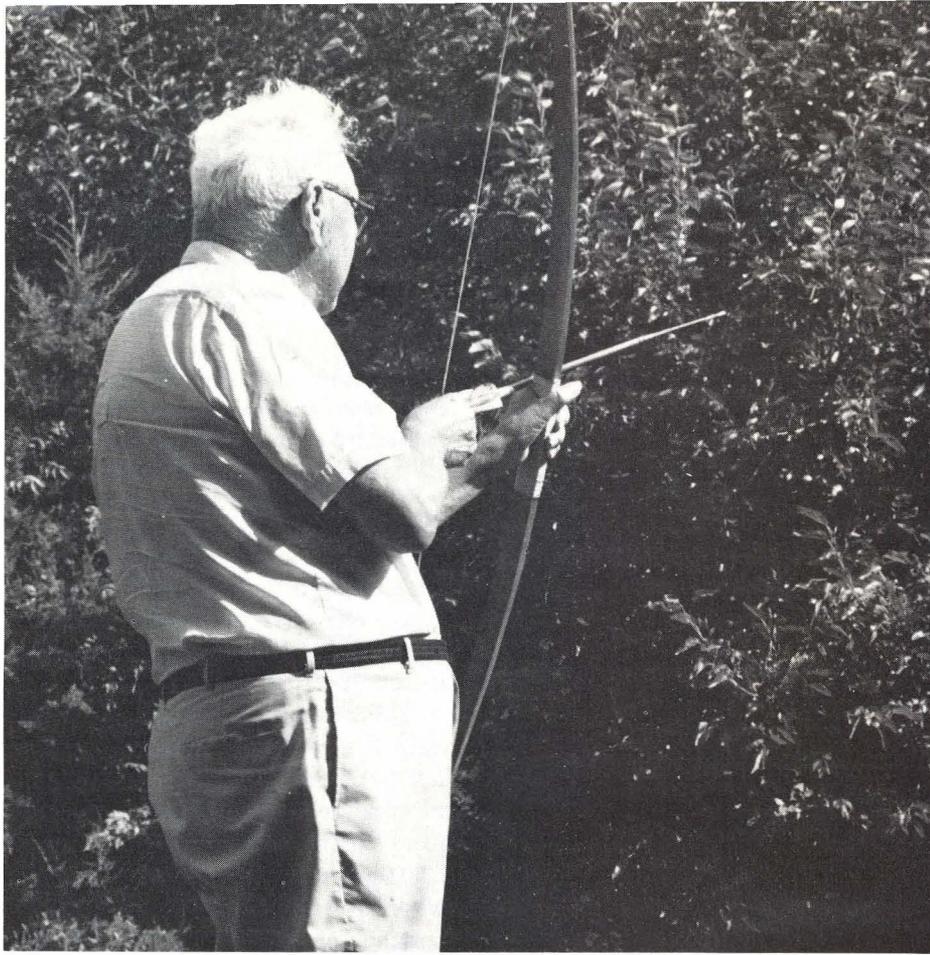
Being conservation minded, he doesn't follow tradition when it comes to bowstrings.

"They used to make bowstring from the hide of the fox squirrel. They would split it down the front and let it dry in greenwood ashes for about two days. The hair would fall right out. Then, they cut it out in a circle about a quarter-inch wide. But I just buy sporting goods string. There aren't enough fox squirrels left. I have some around my place and they should be taken care of."

Downing and his English setter make a good team when it comes to hunting.



Paul Bocquin



He said that before they used the fox squirrel, the Indians made bowstring from buffalo hide.

"I could put in all of my time making bows. I could make a bow and arrow in a day if I worked like I used to. Five or six hours is my day's work anymore."

Downing now requires two days to make a bow and arrow, which still is not a bad record considering the painstaking skill that goes into it. But he comes from a family lineage that takes pride in their work.

"One of my grandpa's cabins in Oklahoma is over 100 years old and still standing. It's nine miles north of Tahlequah. He made the shingles out of oak, cut them single-length in four ways, stripped the heart out of the quarters, split them about five-eighths to three-quarters inch thick and would stack them and weight them down for six months. They would dry as hard as a cow's horn. Without any treatment, it was 40 years before they leaked."

The Indian hunting bow and arrow also are useful to the angler. "You can shoot fish with a spiked arrow.

Just tie a reel to your bow and one line to the arrow. Shoot one and you can reel 'em in.

"At Fort Gibson Lake in Oklahoma, the west side is shallow with grass and bushes. In May, the carp spawn there. They have a shooting season. A boat or canoe can ride around there and the carp will be sticking their tails out of the shallow water."

Indian Medicine Almost Lost Art

He is well versed in the art of Indian medicine that came over the Trail of Tears with his great grandmother.

"Arthritis is a pretty big word in the medical profession. I'm not trying to belittle that profession but to corroborate with them to relieve the sufferings of humanity. They don't accept it. I've talked to two arthritis foundations.

"When I was working, I had arthritis myself in the knees. They would swell and every step I took, it hurt. I had two doctors that weren't doing me any good. So, I resorted to Indian medicine. I got all right."

Downing said there are 12 or 15 "walking testimonials" in the community whom he has doctored.

"But I wouldn't set up shop. I'm retired. If they'd give me a million dollars to show them how to do it, taxes exempt, I'd have to give it all away because, according to the Scriptures, what you are blessed with, it would be wrong to sell it for a price.

"They didn't have medicine in those days. Supernatural powers were entrusted to a few Indians. My great grandmother didn't have a raincoat or a storm cellar but she could detour a tornado."

Downing has another good reason for not setting up shop. "I'm 40 years behind fishing."

Another affliction that he is gifted with healing might be of interest to outdoor sportsmen. "I can neutralize the venom of a rattlesnake and make it harmless, using supernatural powers entrusted to the Indians.

"I tried to demonstrate it to our local doctor. I offered to let a rattlesnake bite him and a spider bite the nurse and office girl. They just looked at me," he said with a hearty laugh.

"I can't do all of their tricks. They could track down a person in the forest by signs invisible to the white man. There are reservation Indians who can do that yet in Mexico and Arizona. One of them tracked a lost child in the desert."

According to this story, a family enroute to California camped on the edge of a town in the desert. The child wandered away and was lost. The sheriff and a posse of cowboys were unable to find a trace of the youngster. Bloodhounds lost his trail in the shifting sand. An Indian was summoned and located the child 11 miles away the following day.

"That shouldn't become a lost art. They should give it to the 'G' men," he suggested.

"Now you take Indian medicine. Indians in Oklahoma are too civilized to go back that far. Most of it will go with me when I go."



Fish and Game Forum



Q. I would like to know what happened to the wonderful waterfowl hunting at the Neosho Waterfowl Management Area near St. Paul?

A. A total of 1880 acre-feet of water is needed to completely fill hunting pools 1, 2 and 4. With 1500 acre-feet of water they are still reasonably usable. In extremely wet years local runoff and some water transferred from the refuge (pool 3) reduces required pumping. In dry years evaporation from Pool 3 reduces water height available to drain water back into Pools 1 and 2. The amount of water in Flat Rock Creek has never been sufficient to pump the pools from that source. Backwater from the Neosho River is an absolute necessity. Based on the general hydrology of the area, inadequate water supplies can be expected on an average of one year out of six and a "no water" condition can be expected to occur once in every fifteen years. In 1975, the Neosho River was 3-5 feet below the level needed for pumping. Due to dry soil conditions at Neosho a minimum of 15 days of pumping would be necessary to fill the pools. According to the Water Resources Board the calculated releases needed to raise the level of the Neosho River in order to pump into the hunting pools would have drained John Redmond Reservoir within 8 days. Further, there is an agreement between the Fish and Wildlife Service and the Army Corps of Engineers regarding maintenance of water levels in John Redmond for improving waterfowl habitat on the Flint Hills National Wildlife Refuge. Even this agreement could not be met this year because John Redmond has been below pool elevation throughout this fall.

As you are aware, the Commission drained the refuge pool, which is ap-

proximately one-fourth of the area, to rehabilitate the marsh vegetation and the fish population. While the pool was down we modified the original stop-plank water control structure and replaced it with a gate valve for more precise water management control. Even if we had not drawn the refuge pool down, there would have been insufficient water to have flooded the hunting pools.

Construction of an earthen dam across the river was feasible even though it had been done in the past. There are downstream water rights in the amount of 40 cubic feet per second. An earthen dam across the river would have eliminated flow downstream completely, thus violating the legality of downstream water rights. A "no flow" dam would have resulted in the destruction of aquatic populations in the pools and riffles below any such dam site. In an attempt made several years ago in this regard, irate fishermen dynamited the temporary dam. Placing this fill material in the Neosho River, which would eventually flow downstream

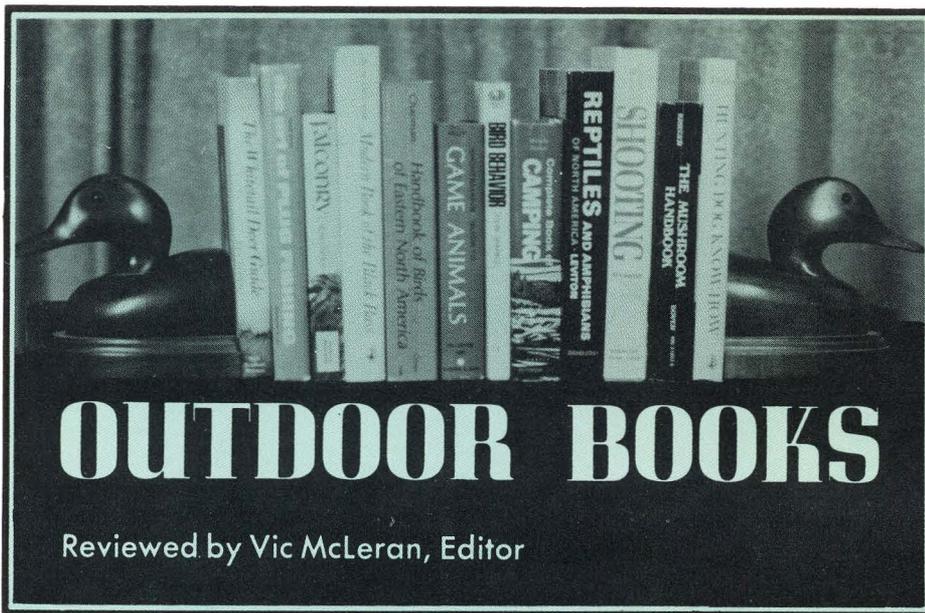
EDITOR'S NOTE: Each month, hundreds of letters reach Fish & Game Commission headquarters with questions regarding various phases of the department's activities, policies, projects and plans. In addition, we receive numerous queries about hunting, fishing, trapping and wildlife. As space permits in future issues, we'll publish some of these questions and their answers to provide Sunflower sportsmen with a greater appreciation and understanding of their Fish & Game Commission and the Kansas outdoors. If you have a question, mail it to FISH & GAME FORUM, Box 1028, Pratt 67124.

and result in increased siltation, would have been in violation of Section 10 of the River and Harbor Act administered by the Corps of Engineers.

While the temporary earthen dam approach was rejected this year, the concept of a permanent low-water structure is a logical approach to the long-term water availability problem. The Fish and Game Commission hired an engineering firm to conduct a feasibility study of alternatives to alleviate the problem. The final report has not been received. Preliminary information indicates that it would be quite expensive, probably in excess of \$250,000 but that it would be feasible. When this final report is received the Commission will have to consider the merits of such alternatives.

The Commission shares with you the concern for lack of hunting opportunities at Neosho this year. We did try to prepare the public for this situation through news releases. Be assured that the resulting dry conditions are directly related to the weather conditions and legal considerations relating to the temporary dam proposal. The dry situation at Neosho was not a result of poor management decisions.

The Commission is aware of the fact that there is a water availability problem at Neosho. We will be examining permanent alternatives to solve this problem. We will also be considering alternate management schemes within the hunting pools (principally Pool 2) possibly changing from a farming-type operation to a natural vegetation marsh in which some water was maintained year-around, at least in the barrow ditches. Then we would have greater assurance of some water during the hunting season and would have a reduced volume of water need to reach full pool.



THE DUCK HUNTER'S HANDBOOK by Bob Hinman; Winchester Press, 460 Park Avenue, New York, N. Y. 10022; 1974, 252 pages, \$8.95

Duck hunting is an unusually complex activity, and some hunters eventually get so involved in a particular aspect, such as the ecological considerations or the art of the decoy, that it finally overshadows the hunting itself. Be that as it may, most of these fellow wildfowlers (and there are millions of them) never lose their interest in calling, shooting, and eating their legal limit of ducks and geese every chance they get, and it is to hunters of this persuasion that this sound, readable and practical book as addressed.

Bob Hinman shot his first duck at the age of eight. Since that day he had hunted virtually every major wildfowling area in the United States, Canada and Mexico. A keen student and skilled exponent of the shotgun, Hinman is the author of *The Golden Age of Shotgunning*. In addition, he is the shotgun editor of *Shooting Times*, a staff editor of *Hunting* and the author of hundreds of freelance articles of sporting subjects. A marine corps veteran with 36 months of service in the South Pacific during World War II, Hinman now resides in Peoria, Illinois where he operates a successful outfitting company specializing in hunting, fishing and camping equipment.

Bob Hinman brings unusual qualifications to the writing of this book. As editor and proprietor of his own sporting goods business, he knows exactly what equipment is available and has tested it personally. And as a dedicated wildfowler himself for more than forty years, he has worked out dozens of practical little wrinkles, many of them never described in print before, for doing everything the duck hunter had to

do. Moreover, though he omits nothing the novice needs to know, Hinman's discussions also encompass many less common subjects that will interest experienced duck hunters, too—such things as the economics of the duck club, the implications of iron shot, getting more value out of the public hunting areas, and even how to make something edible out of “trash” ducks.

Hinman doesn't spend much time evoking the magic of the marsh or yearning for the good old days we'll never see again. But for down-to-earth practical advice on baggin ducks and geese, his compact yet comprehensive volume is one no serious waterfowler should be without.

RINGNECK! PHEASANTS AND PHEASANT HUNTING by E. C. Janes; Crown Publishers, Inc., New York; 1975, 145 pages, \$8.95

Ted Janes is a field editor for *Outdoor Life* magazine and an ardent upland bird hunter all his life. His many articles and books reflect a personal as well as professional love of the outdoors and the sporting life. *Ringneck!* is a thorough guide to America's most popular game bird, is a book for pheasant hunters east and west.

Whether you hunt the brambles and woodlots of the Northeast or the wide cornfields of the Midwest, you'll find pheasant tips here that you can use in your hunting. All styles of pheasant hunting—with and without a dog, alone or in a party—are fully covered.

There is special emphasis on pheasant cover: how to recognize it, how to read it, and how to hunt it. There is full treatment of pheasant shotguns and loads, and an evaluation of bird dogs, breed by breed. A whole chapter is devoted to the hunting

clothes and accessories that help make pheasant hunting more comfortable and more enjoyable. Author Ted Janes also passes on the pheasant shooting tips he has learned in the field in the company of some of the best wing-shooters in the country. And since pheasant is a game delicacy, *Ringneck!* also is a guide to caring for birds in the field and preparing them for the table at home, including more than twenty recipes from *Gourmet Pheasant* to *Barbecued Pheasant*.

Ringneck! is more than a one-season book. Ted Janes leads a lively hunt through pheasant natural history tracing the gradual spread of the bird from its origins in Asia Minor halfway around the world to America. No other game bird had adapted so well to civilization. Janes provides an account of modern pheasant management and game farm techniques, including complete instruction for raising pheasants from incubation to release. Necessarily there is also a strong plea for pheasant and pheasant hunting conservation as part of a consideration of the future of the ringneck in this country.

Perhaps only the crisp, colorful atmosphere of fall can provide the proper setting for a full appreciation of the ring-necked pheasant. Perhaps the exciting and often frustrating moments a pheasant hunter knows—when a bird bursts from nowhere in an explosion of color and noise—can be only be explained by experience itself. But for those who nod their heads with respect when they hear the ringneck's washboard rattle proclaim across the evening countryside, “this is my territory,” *Ringneck!* will add a great measure of both joy and skill to their days afield.

THE WORLD OF THE BEAVER by Leonard Lee Rue; J. B. Lippincott Company, Philadelphia and New York; 158 pages, \$6.95

In this book, Leonard Lee Rue reveals the world and way of life of the good-natured industrious American beaver and follows him through a full year of his ordinary activities. How does a beaver fell a tree? What does he eat? Is he polygamous or monogamous? How does he build a dam? What does the inside of his lodge look like? Who had been his most deadly enemy in America? Rue, whose interest in beavers has caused him to go swimming with them and, on one occasion, led to his becoming stuck in the passage to a lodge, answers all these questions and many others. The informal narrative and the author's remarkable photographs make this really first-rate reading for the nature student and for the ordinary reader.

