Iowa CONSERVATIONIST

Volume 25 July, 1966 Number 7

FRONT FEEDER FIREARMS

Jim Sherman Photo.

Old muzzle loaders have hit the come-back trail.

Ol' Betsy Makes A Comeback

Earl Rose

Chief, Division of Fish and Game

Usually a progressive person who plans to undertake a new program investigates all of the modern equipment to assist in a successful pursuit of the project. A statistician will rely on digital computers, not an abacus; a farmer on highly sophisticated power machinery, not a horse or mule; military tacticians on missiles, not war clubs.

On the other side of the coin, however, many hunters and target shooters who have purchased racks of fine modern breech-loading guns are leaving them on their racks preferring to use the old muzzle-loader guns affectionately known as front-feeders, flinters, percussions, smoke poles, etc. The trend started during World War II when modern ammunition was tough to get (IOWA CONSERVATIONIST, December, 1943). Also more recently the craze to collect antiques of any kind has contributed to the rebirth of interest in these old arms. Some of this trend is just the love of antique hunting, decor for den or fireplace mantel, or for trading. As a consequence, the old house attic, closet and remote hiding places have all been ransacked a dozen times or more. Old rusty relics that were used to prop open barn doors or the perfect ones stored in the dry oats bin have for the most part been peddled to auctioneer or gun nut.

Like all scarce items, prices have sky-rocketed. A good half-stock or full-stock Pennsylvania (or Kentucky) rifle with the characteristically beautiful tiger-stripe maple stock, brass trigger guard, butt plate patch box and equipped with set triggers will cost over $100.00—even for a mantel model! But a real enthusiast wants a shooter with which he can hunt squirrels, rabbits or in some states where legal, big game animals.

A good percussion gun in shooting condition will probably cost more than the $100.00; there are no bargain "finds" anymore. A hunter wants, and usually can get, a muzzle loading shotgun in shooting condition to shoot ducks, geese or pheasants. Most of the good ones were made in England and the prices on them range between $50.00 to $100.00, depending upon the name and condition. You can expect to pay at least $100.00 for a good old Greener or Wesley-Richards or their equivilant.

Most all old guns need some expert examination to determine shooting condition. This means a complete take down by a competent gunsmith. Previous long soaking of threads with penetrating oil is necessary before you dare touch a screwdriver to the old rusty screws or a wrench to breech plugs. Bores of rifles or smooth bore muskets must be examined carefully so the breech plug must be removed since the residue of black powder and percussion caps are corrosive. If the old Betsy hasn't been properly cleaned and oiled during its years of use by Grandpa, chances are that eroding or pitting of vital breech areas are present. A new nipple is usually needed to replace the battered one someone's boy ruined while snapping the hammer at imaginary Indians.

In order to partially supply the demand for these beautiful old guns, several manufacturers are building replicas which are superior to the old ones—proof steel barrels, better rifling and better, safer shooters. Admittedly, they don't have the appeal of the old Pennsylvanias—where most of the good "Kentuckys" were made, but the old ones can be made safe and the barrel refreshed so that it will still "drive a tack" at 150 yards.

The percussion arms are most popular among the serious muzzle-gun buffs today. Flintlocks are just too disconcerting and too unreliable as shooters for most, but who wouldn't like to own a good

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CIRCULATION THIS ISSUE.....57,337

COMMISSION MINUTES

State Conservation Commission Meeting Held in Bellevue, Iowa June 7 and 8, 1966

COUNTY CONSERVATION BOARD PROJECTS

Appanoose County received approval to acquire one acre of land at no cost by 25 year lease for the purpose of developing a picnic and playground area within the incorporated limits of the town of Moulton to be known as the Moulton Recreation Area.

Delaware County received approval to acquire 5 acres of additional land as a gift to the 144 acre Turtle Creek County Park.

Franklin County's proposal to acquire 54 acres of land at $9.-250.00 as a timber preserve and a wildlife habitat and nature study area known as the Mott Township Forest Area was approved.

Hardin County's request to establish the Ferris Wilderness Area on the Iowa River, a 205 acre tract of land at a total cost of $16,400.00, was approved.

Linn County received approval of its request to acquire an additional 92.54 acres to the Pinicon Ridge Park at a total cost of $30,-000.00.

O'Brien County received approval of its request to acquire 20.74 acres of land at a total cost of $2,131.75 for the purpose of developing an abandoned gravel pit area for fishing, picnicking and camping, to be known as the Summit Township Recreation Area.

O'Brien County received approval of its request to acquire 3 additional acres of land at no cost to add to its 1.39 acre Litka Park Area.

Polk County received approval to purchase 0.533 acre of additional land at the Camp Creek Park Area at a total cost of $250.00.

Winnebago County received approval of its request to acquire 9.30 acres of land adjacent to the Winnebago River to be known as the Dahle Fishing and Hunting Area at a total cost of $800.00.

Floyd County received approval of its request to acquire 38 acres of land by a 20 year renewable lease at a cost of the Board paying annual taxes levied against this timbered area known as Bunn's Woods Recreation Area.

O'Brien County was given permission to proceed with condemnation proceedings to acquire 19.507 acres of additional land at an estimated cost of $3,500.00. The County Board has already acquired 100 acres of land for the purpose of developing an artificial recreation lake in cooperation with the County Engineer.

The 67.399 acres of land owned by the state and used as access areas plus the access roads to the state-owned Lizard Lake in Pocahontas County were turned over to the Pocahontas County Conservation Board for a period of 25 years under the standard management agreement.

Appanoose County's development plans for Moulton Recreation Area to cost an estimated $4,700.00 were approved.

Benton County's development plan for the Benton City-Fry Area, a 39.73 acre tract of land located 4½ miles east of Vinton on the west bank of the Cedar River at an estimated cost of $6,000.00 was approved.

Benton County's Hoefle-Dulin Access Area, a 51.50 acre tract of land located 3 miles east of Benton on the south bank of the Cedar River as a county picnic area, wildlife habitat and outdoor classroom at an estimated cost of $8,-000.00 was approved.

Benton County's development plans for the State-owned Minne Estema Access Area, a 60 acre tract of fish and game land under a 25 year management agreement calls for the development of more access roads, parking areas, camping and picnicking development, the installation of boat launching ramps and a winter sports area at an approximate cost of $12,000.00 was approved.

Benton County's development plan for Wildcat Bluff Park, a 119 acre tract of land located on the north bank of the Cedar River near Urbana-Cedar River Bridge, for the developing of picnicking, camping, wildlife preserve, outdoor classroom and fishing access at an estimated cost of $17,000.00 was approved.

Grundy County's development plan for Shearn Safety Rest Area, a 0.50 acre tract of land located in the southwest intersection of County Road "L" and State Highway 58, 3 miles east of Grundy Center, primarily used as a picnic area at a development cost of $1,000.00 was approved.

Grundy County Stoehr Fishing Area development plan for a 3.30 acre tract of land located 4 miles west of the town of Holland to be used primarily as a fishing pond and picnic area at an estimated development cost of $5,000.00 was approved.

Linn County development plan for the South Cedar River Access Area, a 162 acre tract of land located on the south bank of the Cedar River, 6 miles south of Mt. Vernon to be used primarily for river access for boaters and fishermen, picnicking, primitive-type wilderness camping and a forest management and wildlife habitat area to be utilized as an outdoor classroom at an estimated cost of $21,000.00 was approved.

O'Brien County's development plan for the Peterson Highway Safety Rest Area as a picnicking and camping area on U. S. Highways 18 and 59 located approximately 2 miles east of the town of Sanborn at an estimated cost of $11,000.00 was approved.

Poweshiek County's development plan for the Brooklyn Recreation Area Plan Revision, a development of 7.40 acres of land partially completed, consisting of baseball diamond, softball diamond, picnic area, tennis courts, horse shoe courts and a children's playground and an agreement by which the County Board will pay $6,000.00 of an estimated $18,000.00 for installing lights on the baseball diamond and the installation of bleachers at a cost of $3,000.00 was approved.

Sioux County's Oak Grove Park development request for a 24 ft. x 42 ft. picnic shelter in the 101.90 acre State Park turned over to the County Conservation Board for operation management and development by a 25 year management agreement was approved.

(Continued on page 54)

Conservation Forum

Dear Sirs:

Could you give me the car speed for trailing a boat and trailer back of car—on highway and also is it the same on the freeway as on other highways in the state?

Thanking you for this information

I am sincerely,
W. H. L.
Colfax, Iowa

Checking with the highway patrol we find that 55 m.p.h. is the legal speed on regular highways for a car pulling a two-wheeled trailer with a maximum length of 28 feet, including tow arm, and a maximum gross weight of 4500 pounds.

Cars towing boats on trailers that fall within the above classification may travel at the posted auto speeds on interstate roads.

Dear Sir:

Thanks for your timely article "Spring Warblers" in the May issue. I would like to see more articles on our song birds. Your coverage of game birds is, of course, very excellent.

Why are bluebirds so scarce?

Sincerely,
O. J. R.
Kalona, Iowa

One of our Game Biologists says: "The scarcity of bluebirds is the result of loss of nesting habitat. The bluebirds find that artificial nest boxes are suitable. An increase in bluebird populations can be achieved on a local basis by providing artificial nest boxes."

Dear Sir:

Can you tell me when the prairie lilies of Iowa bloom, and where? I visited Sheeder and Kalsow Prairies about this time (May) last year, but did not find them. I assume that it was too early for them. But I do not know what the plant looks like and so was unable to say whether there were any plants there.

R. T. L.
Columbus, Ohio

Most flower guides will have pictures of the Turks Cap Lily and the Philadelphia Lily which are found on our Iowa prairies. They bloom during the month of July.—Editor.

Dear Sir:

I have heard there may be caves where stones and such as stalagmites might be collected (a few). Is this so, and if so, in what State Parks? Also, can you give me information where fossils and/or geodes may be collected, I would appreciate it.

G. R. J.
Wildwood, Illinois

The Code of Iowa, Chapter 114.41 states: "No person shall, in any manner, remove, destroy, injure or deface any tree, shrub, plant or flower, or the fruit thereof, or disturb or injure any structure or natural attraction, except that upon written permission of the commission, certain specimens may be removed for scientific purposes."

Fossils are distributed rather generally across the state. Best pickings are probably in stone quarries and clay pits. These are private ownership and permission to collect should be obtained. Geodes may be found along some of the streams in southeast Iowa. Again, you will have to ask permission from the owners to make your collection trips.

Jim Sherman Photo.

Our remaining wilderness areas such as these Mississippi River islands near Lansing will be preserved through zoning regulations which are now being formulated by Iowa, adjoining states and the U. S. Corps of Engineers.

CONSERVATION SPREADS OUT

Clarke Anderson*

Time was when the chief problems confronting those occupied with the preservation of natural resources were those of forest fires, water pollution, destructive logging, flood prevention and the enactment and enforcement of wildlife laws. While there is still considerable effort devoted to these causes, a noticeable shift in emphasis has taken place in recent years. Conservationists are becoming increasingly concerned with things which earlier were not thought to fall within the boundaries of a rather well defined area posted with signs labeled "Natural Resources."

Today we hear more and more about such programs as the preservation of open space, roadside beautification, littering and the vital need (every desire is a vital need these days) for more outdoor recreation opportunities. Is it true that these new problems are more pressing than the old ones?

Certainly it is a fact that the destruction of natural beauty is making many of our cities increasingly unpleasant places to live. In countless cases this destruction has progressed to the point where no one willingly lives in such areas when they have the financial resources to escape from them. Hence the post-war flight to the suburbs. But in many cases of course, lack of values and poor planning are rapidly creating in the suburbs the same conditions people thought they were escaping. Or, to put it another way, unwise use of the land is destroying those values the city dweller thought he was going to gain by becoming a suburbanite.

The shift in the population which finds increasing numbers of people living in the cities and their suburbs is perhaps responsible for the preoccupation with these later-day problems. But while more and more attention is being focused on these problems, is less and less being devoted to the old causes? This is a question which at the present time is disturbing many persons concerned with the vitality of the nation's resources.

There seems to be a growing feeling among many that in the rush to establish campgrounds, riding trails, small boat harbors and similar outdoor recreation facilities, we are attempting to reap the benefits of a victory before the enemy has been defeated. The enjoyment of outdoor recreation represented by parks and campgrounds, in fishing, hunting, boating and swimming or the quiet relaxation of lake shore and forest—none of these things are possible without the basic natural resources on which they depend. These resources are—as they always have been—clean water, fertile soil, flourishing grasslands and forests. The quality and quantity of these resources and how they are managed will determine not only the opportunities for outdoor recreation but the future existence of all living things including wildlife and man.

Ernest Swift of the National Wildlife Federation put the case a little more strongly recently when he wrote that he has "for years been attempting to point out the folly of face-lifting programs whose only excuse for existence is to hide the ugly cesspools of human indolence."

This may be an overly bitter indictment of some so-called "conservation projects," but Ernie Swift has never been known to mince words. The fact remains that there is a strong argument for the assertion that a conservation program is badly out of balance which assigns more effort and funds to recreation than to such gut issues as water pollution, soil conservation, forest and watershed management, game law enforcement and fish and wildlife habitat.

The other side of the argument is that the creation of outdoor recreation facilities attracts people to the out-of-doors and thus makes more and more persons aware of the irreplaceable values of our natural heritage and the need for conserving the nation's resources.

This is a strong argument too and it doesn't make things any easier for conservation administrators who are trying to allocate available funds to several different programs.

*News Editor for the Minnesota Department of Conservation.

MINUTES

(Continued from page 50)

Winneshiek County development plans for Calmar Park, a 126 acre multiple use outdoor recreational area surrounding a 38 acre artificial lake which will provide group camping, tent camping, trailer camping, play fields, archery range, outdoor classroom, wildlife habitat area, bathing beach with bathhouse and a boat launching ramp at an estimated cost of $120,000.00 were approved.

Mitchell County's development plan for Interstate Park, a 25 acre tract of land and river dam located on the Cedar River at the town of Mitchell to be used for river access for boaters and fishermen, the development of picnicking facilities and the installation of boat docks and boat launching ramps at an estimated cost of $12,000.00 was approved.

LANDS AND WATERS

The Boat Concession Contract at Pine Lake State Park, Hardin County, was cancelled at the request of the holder Loverin and was awarded to Putnam of Oskaloosa for a period of three years.

Authorized the investigation of an offer by Stuart to sell a tract of land near Clear Lake State Park in Cerro Gordo County.

Approved the request of Interstate Power Company to replace the dredge of the Pleasant Hill Power Station in Polk County with a scraper which will be used to remove sand which plugs the intake of that operation.

The Commission directed the staff to make a study of a sand and gravel removal permit request by Concrete Materials Company which would affect the Raccoon River near Des Moines.

Approved the zoning of a no-wake areas of approximately 18 acres on Little Wall Lake in Hamilton County.

Approved the contract award for purchase of four crawler tractors from lowest bidders.

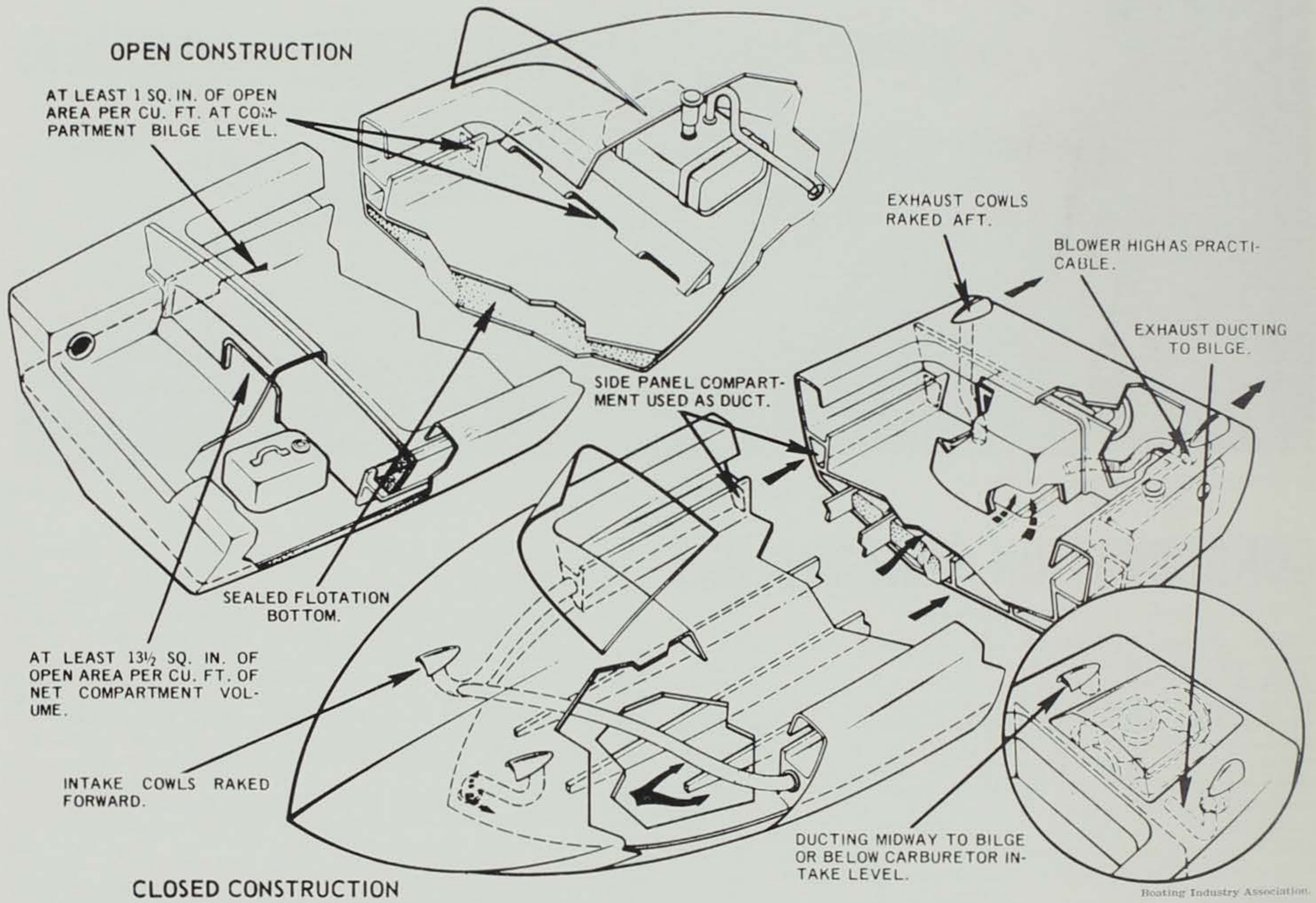
Authorized the advertising of bids to replace a service building which was destroyed by fire at Union Grove State Park providing the bids do not exceed the engineer's estimate by 10 percent.

FISH AND GAME

Authorized the exercising of a purchase option with Dodge for purchase of 80 acres of land adjacent to Miami Lake in Monroe

(Continued from page 54)

RECOMMENDED PRACTICE



Boating Industry Association.

New Boat Ventilation Law

Owners of outboard, inboard-outboard and inboard motor craft with closed construction will be required to properly ventilate their boats. A regulation dated June 1, 1966, requires such ventilation to be enforced starting June 1, 1967. This U. S. Coast Guard regulation will affect all boats built since 1940. It is true that improperly vented boats have been used for years, but the enforcement of this regulation will help control devastating, and perhaps death dealing, explosions that annually occur.

No one knows how many boats will be affected by the regulation. A leading marine trade journal states "a large part of the boat inventory will not pass the ventilation law and many of the boats which have been improved by their owners will now come under the law." The latter part of the statement is very significant, as many boaters have added refinements such as cabins, cabinets, tank enclosures, etc. and have thus placed their craft in the closed construction category.

Requirements will vary from one boat to another and so this article can only deal in generalities. We suggest that you discuss the peculiarities of your boat with your dealer, a Coast Guard official, or a member of the Iowa Water Safety Patrol. Their decision will be based on the letter of the law which is as follows:

"All motorboats or motor vessels, except open boats, the construction or decking over of which is commenced after April 25, 1940, and which use fuel having a flashpoint of 110 F. or less, shall have at least two ventilator ducts, fitted with cowls or their equivalent, for the efficient removal of explosive or flammable gases from the bilges of every engine and fuel tank compartment. There shall be at least one exhaust duct installed so as to extend from the open atmosphere to the lower portion of the bilge and at least one intake duct installed so as to extend to a point at least midway to the bilge or at least below the level of the carburetor air intake.

MINIMUM DUCT REQUIREMENTS

Net Compartment Volume Not Exceeding	Maintain Minimum Duct Area of	Equivalent Duct Diameter
7.7 Cu. Ft.	3.14 Sq. In.	2 In.
12.0 Cu. Ft.	4.91 Sq. In.	2½ In.
17.2 Cu. Ft.	7.07 Sq. In.	3 In.

"The cowls shall be located and trimmed for maximum effectiveness and in such a manner so as to prevent displaced fumes from being recirculated."

As to what constitutes an open compartment craft, the Boating Industry Association says, "An engine or fuel tank compartment having at least *13½ sq. in. of area exposed to the atmosphere per cu. ft. of net compartment volume, providing that no long or narrow unvented spaces remain in which a flame front might propagate. Also, open compartments should have at least 1 sq. in. of the required 13½ sq. in. of open area at compartment floor or bilge level where possible, so that any fumes present will drain into open areas. If partially enclosed compartments join (Example: Where accommodation floorings or side panels join engine or fuel tank compartments), each such space must have at least 13½ sq. in. of open area per cu. ft. before either space may be considered open.

"Accommodation floorings should have frequent openings around their perimeters if the space beneath them is to be considered open. Long narrow compartments formed by side panels, not serving as ducts to an engine compartment, should have openings at both ends or frequent openings along the full length of the compartment formed.

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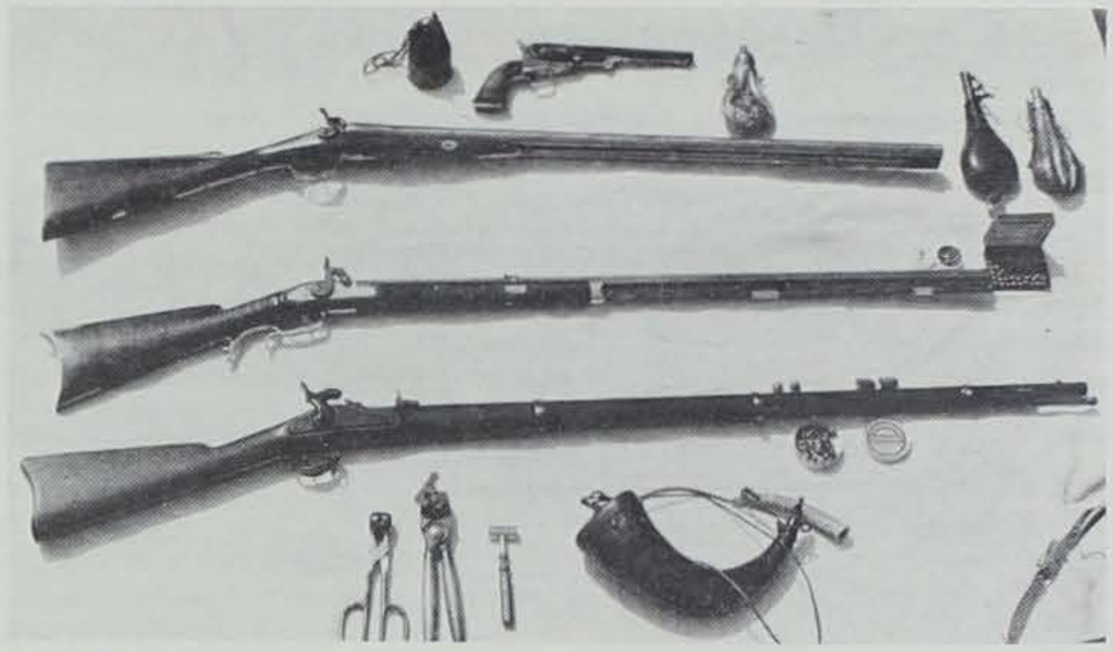
*13½ sq. in. is the minimum open area presently recognized by the Coast Guard for a compartment not requiring an underway ventilation system pending completion of additional test programs.

FRONT FEEDERS

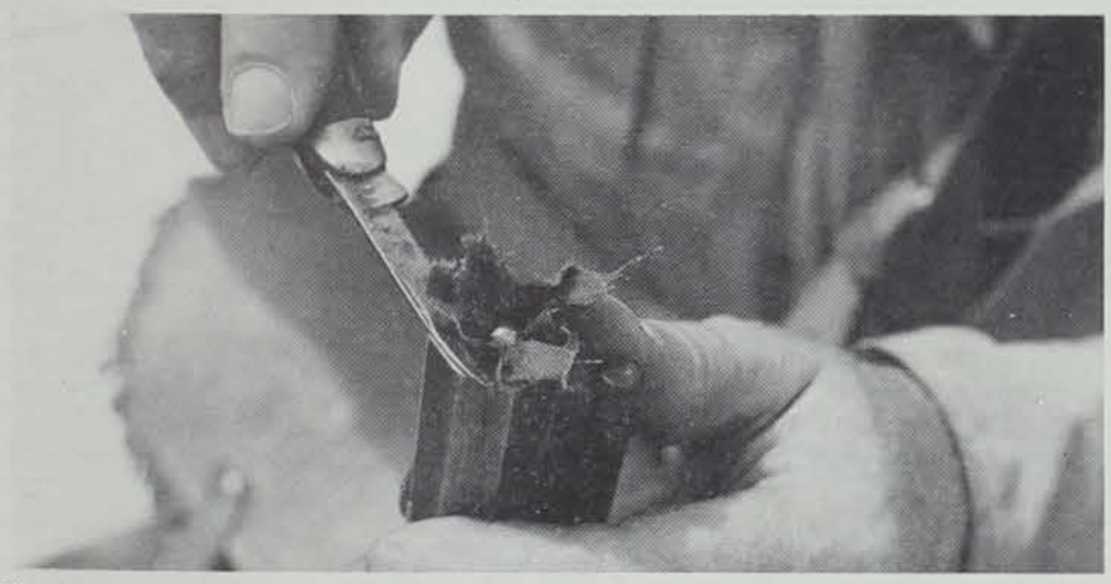
(Continued from page 49)

Jim Sherman Photos.

Black powder, in the FFFG grade, is preferred for small caliber rifles, revolvers and pistols.



From left to right, the four gourd-like objects are shot pouches and powder flasks. The firearms from top to bottom are a Navy colt, 36 cal., a Moore 14-gauge double barrel percussion shotgun, a Kentucky squirrel rifle, 35 cal., and a Springfield Civil War musket. The objects at the bottom are bullet molds, a powder horn and percussion caps. The box holds cast rifle bullets.



The ball is wrapped in cloth, placed flush with the muzzle, and then the excess cloth is cut away.

Mounting the piece on an old tire and firing from remote control is a sensible way to safely test fire it.

one just the same? Before attempting to shoot these old guns you should become acquainted with a local expert—most every community has one—who will be most happy to get you started. There are a few basic principles which can be pointed out here, however. First of all, be absolutely sure you or Grandpa didn't leave a load in the chamber. Check by measuring with the ramrod or removal of the breech plug. If the chamber is empty, you are ready to load the rifle, using genuine black powder. Black powder comes in several grades—FFG or FFFG.

To start with, the charge of powder should be measured in grains equal to the caliber of the rifle. If, for instance, your rifle is .40 caliber, use 40 grains of black powder. The FFFG grade is preferred for small caliber rifles, revolvers and pistols; the coarser FFG is for large bore rifles of .50 caliber and up as well as for shotguns. WARNING: Under no circumstances use modern smokeless powder in these old guns; it's suicide to do so!

A list of equipment for your rifle will include a powder-horn, or flask with cut-off spout for the desired powdered charge, a box of percussion caps of correct size to fit the nipple snugly, soft lead, round ball bullets which you have purchased or cast in your own properly sized mold and are a few thousandths of an inch smaller than the bore, patch material for the rifle ball and a shot pouch. All of these are carried in a conveniently compartmented bag slung over the shoulder. For the old cap and ball revolvers, no patch is used, as the ball forms its own seal and is tightly forced into the cylinder chambers by the rammer.

Loading the rifle is a pleasurable ritual. If your gun hasn't been fired recently, thoroughly wipe the oil out of the bore. To make sure the nipple vent is clear, snap a couple of percussion caps with the muzzle pointed at some grass or piece of kleenex. If the object moves on explosion of the cap, the vent is clear. Next, pour in the charge of FFFG black powder. Lightly bump the butt of the gun on your boot a couple of times to settle the powder evenly in the chamber. Then, enclose the rifle ball in your patch cloth and insert the ball and cloth into the muzzle, cutting off the surplus cloth when the ball is flush with the muzzle. The patched ball is then forced down to the powder with the ramrod. Don't ram the ball onto the powder, just snugly set the ball on the powder. Finally, cock the hammer and place the percussion cap firmly on the nipple, keeping the gun pointed down, of course, then gently release the hammer until it rests on the cap and give it a firm push to seat the cap. Most Kentuckys don't have a safety notch, so don't let anything strike the hammer or the piece may fire accidentally. If your lock is in good condition and you have set triggers, you can carry it cocked.

Now that you are ready to shoot, aim at your target, pull the rear trigger 'til it releases, be sure of your aim and touch her off with the set trigger. If you have never shot the gun or are the least bit apprehensive about the safety angle, put in a heavy charge, say 40 grains of powder for a .30 caliber rifle, set the patched ball and touch her off by remote control. I usually tie the gun to an old automobile tire making sure the aim is against a safe back stop. A long string—25 feet or so of cord—is then attached to the trigger and the gun fired. If it will withstand this charge, chances are good it will henceforth be safe to shoot with the normal 30 grains or less charge. For accuracy at short ranges, you should experiment with the lighter charges, say 28 or 25 grains. After the first shot, wet the succeeding patched balls with saliva to help clean the bore. It is recommended that you use shatter proof shooting glasses in all your shooting and particularly with percussion guns.

Percussion shotguns are loaded similarly. For a 12 gauge, use 3¼ on up to 4½ drams of FFG black powder and one ounce to one and one-half ounces of shot. A couple of heavy cardboard wads are all that is needed over the powder and one over the shot. You can use felt wads over powder if you want to, but they serve no real purpose.

Most of these old shotguns are about cylinder bore, so the patterns are not the best. But, at 30 or 40 yards you will kill everything your modern full-choke guns will. And at short ranges (below 30 yards) your game will not be blown to pieces. The new plastic sleeves used in modern loads and reloads can be used to improve patterns considerably. Simply ram one down over the over-powder wads, dump in the shot, cover with the top wad and she is set to go. Ignition is a trifle

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SWIMMING SAFETY

Spoil-sports, encouraged by numerous drowning reports, might be heard to say, "If man were supposed to swim, God would have given him gills, like a fish." We have to call that fuzzy thinking on the part of the uninformed, for swimming is a great form of recreation.

Like anything man undertakes, swimming has its hazards. Your chances of escaping the statistical column headed by the ominous word "drownings" are vastly improved, however, if you do your swimming under supervised conditions. In fact, the National Safety Council says your chances of drowning are 98 percent less than if you're swimming in an unsupervised pool, pond or beach.

This doesn't mean that you have to avoid such places. Rather, you have to understand what the word "supervised" means. A supervisor doesn't have to be a paid employee hired for his swimming skills. He can be any responsible adult who is not only a good swimmer, but one who is content to play the role of watcher, preferably from shore. Children should be made to understand that he or she has to be present before they are allowed to swim.

You should mark out the area of the swimming in some way so that all who use it know the bounds and won't stray out of the supervisor's vision. Also, you should thoroughly scout the swimming area and make sure that any unseen hazards are clearly marked.

Provide such lifesaving devices as ring buoys, ropes or long poles. This means that you have to anticipate that someone is going to get in trouble in the water and a rescue will have to be made. It's too late to think about the devices when a drowning is occurring before your eyes.

Do not permit boats in the area. A swimmer submerged before a boat appears can become thoroughly confused and frightened when he tries to rise to the surface but finds his way blocked by the boat. If the boat is propelled by motor, another hazard is encountered, as the whirling blade can cause serious injury or death.

If you own a pond, pool or beach, post safety instructions governing swimming and boating. Make the sign big, and post it where it is conspicuous. Make it thoroughly clear that no one is ever to swim alone.

Keep swimmers and boaters out of the pond just prior to and during storms. A swimmer with just his head sticking out of the water, or a person in a boat is inviting a bolt of lightning to take him to "the great swimming hole in the sky."

Russell Nelson Photo.

Having life saving equipment available at unsupervised ponds will prevent needless drownings.

Finally, enclose your pond or pool with a fence that children can't climb.

These rules have no force of law behind them. They do, however, represent rules of common sense and also show respect for human life. And from this viewpoint, they are mandatory.—J. H.

Ptarmigan are small alpine grouse that change their brown summer plumage for white feathers when winter sets in.

Loons are large submarine-like swimming birds, much larger than most ducks and with shorter necks than geese.

Probably the first white man to see a buffalo was Cortez. He saw one of the animals in Montezuma's zoo in 1521 in Mexico City.

The peccary never gets as fat as a domestic pig but has the same eating habits—anything and everything edible will do.

MINUTES

(Continued from page 51)

County for $6,000.00 as a Federal Aid purchase.

Authorized the exercising of a purchase option with the Meyer estate involving two tracts of land at Sweet Marsh in Bremer County, one of 52 acres at $7,000.00 and a second parcel of 80 acres for $14,000.00 as a Federal Aid purchase.

Exercised a land purchase option with Foster for 23 acres of the McMahon Access on the Raccoon River in Greene County at $70.00 per acre.

Approved a construction permit for borrow dirt by the State Highway Commission at Dudgeon Lake at Benton County. It will be used for their construction of a wing dam on the Cedar River.

A construction permit was granted to Fremont County to fill an area of 200 square feet at Forney Lake for a parking area to be used by hunters and sight seers.

Contract with the State University of Iowa on Pesticides and Chemical Pollution Research was granted and renewed as of July 1 for $10,000.00.

Approval was given to a request for controlled hunting from state blinds experiment on Forney Lake in Fremont County to be in effect for goose hunting season this fall.

GENERAL

Travel was approved to the Forestry Conservation Communication Meeting in Louisville, Kentucky, July 18-23; to the Annual Forest Fire Meeting at Higgins Lake, Michigan, June 21-23; the Annual State Foresters Meeting in Philadelphia, Pennsylvania, July 13-15; to the "Show me" Trip for observation of waterfowl populations and production in areas of Alberta, Manitoba and Saskatchewan, Canada in July; to the Association of Midwest Fish and Game Commissioners meeting at Wichita, Kansas; and to the St. Paul Office of the Corps of Engineers for discussions on Tuttle Lake in June or July; Blanket Travel Authority was given to one County depth into adjoining states to the Planning Staff Personnel.

Authorization was given to the Director to use such discretion as he sees fit in answering requests for departmental records by commercial operators because of the burdensome aspect of such request.

Approval was given to submit a project proposal to the BOR requesting federal cost sharing in the amount of $46,000.00 for the purpose of reconstructing the Lake Keomah spillway.

Approval was given to submit a project sponsored by the Linn County Conservation Board for the acquisition and development of their Pinicon Ridge Park to the

(Continued on page 56)

"We're not lost, Ed. We're nearing civilization!"

BOAT VENTILATION

(Continued from page 52)

Where frequent openings cannot be provided, a ventilation system should be installed.

"Closed compartment, ventilation required, is defined as an engine or fuel tank compartment having less than 13½ sq. in. of area exposed to the atmosphere per cu. ft. of net compartment volume, or otherwise not meeting the above requirements for an open compartment. Ignition of fuel vapors within such compartments may create explosions, damaging overpressures or destructive fires."

If your craft fits in the "closed compartment" category, you have to provide for ventilation "which will introduce a volume of air into the compartment in one minute equal to the net compartment volume when the boat is headed into a 5 MPH wind. The accompanying table lists minimum duct requirements for single intake, single exhaust systems. If an engine or fuel tank compartment introduces fumes into an adjoining compartment, the total volume of both compartments must be considered in determination of the ventilation required.

"It is recommended that the underway ventilation system be supplemented by a mechanical blower in order to remove explosive fumes from engine compartments prior to starting of the engine. It is recommended that the blower be installed in the exhaust duct, as illustrated, so that it will draw out fumes that have settled to the compartment bilge.

"Blowers should be capable of completely removing a volume of air from the engine compartment equal to the net compartment volume in less than one minute. The operator's position should be placarded near the ignition switch with instructions giving the length of blower operating time required to clear the engine compartments before starting the engine.

"Motors for electric blowers, when installed within the compartment, should be of the sealed or arcless type suitable for marine atmosphere. When blowers are not provided for closed engine compartments, the operator's position should be placarded near the ignition switch with instructions to open engine compartment hatches before starting the engine."—J. H.

FRONT FEEDERS

(Continued from page 53)

slower than modern ammunition, so leads must be a bit longer. These old guns will shoot just as hard as your modern ammo and it is a whale of a lot more fun. A friend of mine who hunts ducks exclusively with his old black powder Greener once set fire to the vegetation on a marsh with his toilet paper wads. We had quite a time getting that fire out. Therefore, we recommend regulation cardboard wads.

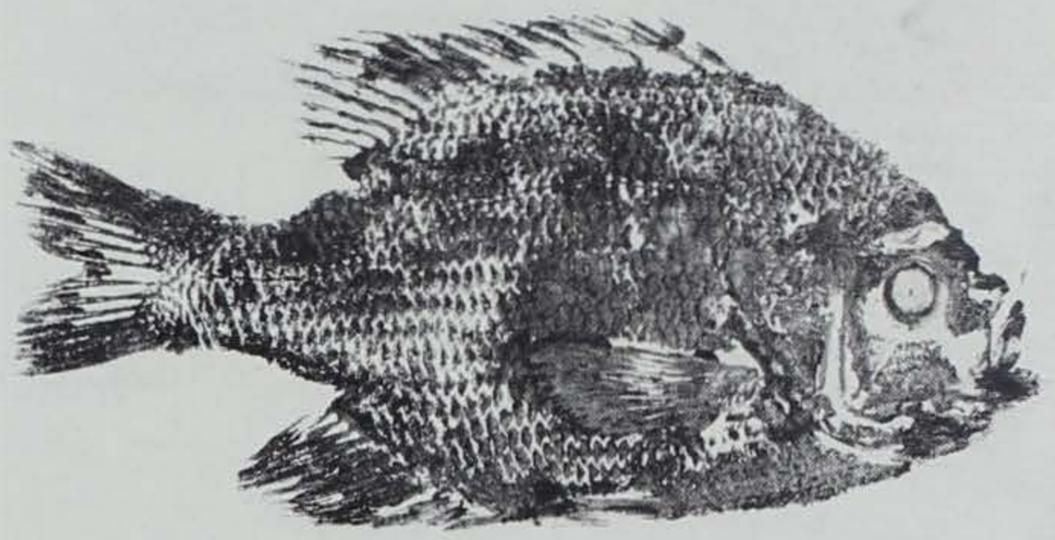
Hunting companions often poke fun at us for using these primitive guns, suggesting we should get some rocks to throw, or even clubs and spears so that we'll be sure of killing some game. But, they change their opinions if they attend a muzzle loader gun club shoot. They will observe some fantastic rifle accuracy and some 25 straight runs at clay birds. If you want a good shotgun that will throw a close pattern, a jug-choke can be made if the barrels are fairly thick at the muzzle. These will shoot just as hard, just as far, and have just as tight a pattern as the best of modern guns.

Cleaning the bore of a muzzle-loader is also a pleasant chore if you like the smell of a sewer plant. Water must be used to dissolve the black powder residue. A little detergent is added to the water first, swabbing repeatedly until it wipes clean, flush with fresh water, dry and end up by wiping with light oil.

Why does a guy handicap himself with these old guns; the one shot, the long reloading ritual, the cleaning chore, the all unnecessary with modern guns? Perhaps it's the Daniel Boone, Davey Crockett, old pioneer syndrome that has found expression in those of us who like the challenge and obstacles. Much has been written on the use, care, and joy of ownership of these lovely old arms. Experience is the best teacher. The best advice is to get acquainted with one of the shooters or join one of the several muzzle loading gun clubs in Iowa. They will offer advice and help and get you started even at the point of selling some of this trading stock at a loss, of course!

NOTICE

Copies of the Index for Volumes 23 and 24 of the IOWA CONSERVATIONIST are now available in limited number. These volumes cover the years 1964 and 1965. Readers who have saved their issues will find this compilation to be a ready reference. Single copies may be procured by written request to the IOWA CONSERVATIONIST, East 7th & Court Avenue, Des Moines, Iowa 50308.



Print by Julius Satre.

FISH PRINTS

by Mac Johnson

Maybe that fish isn't big enough to send to a taxidermist to have mounted, but don't fix it for the frying pan—not yet. If you have any knack for doing-it-yourself there's a method of making a record (or several of the same fish, if you want) to fill a bare spot over the mantle.

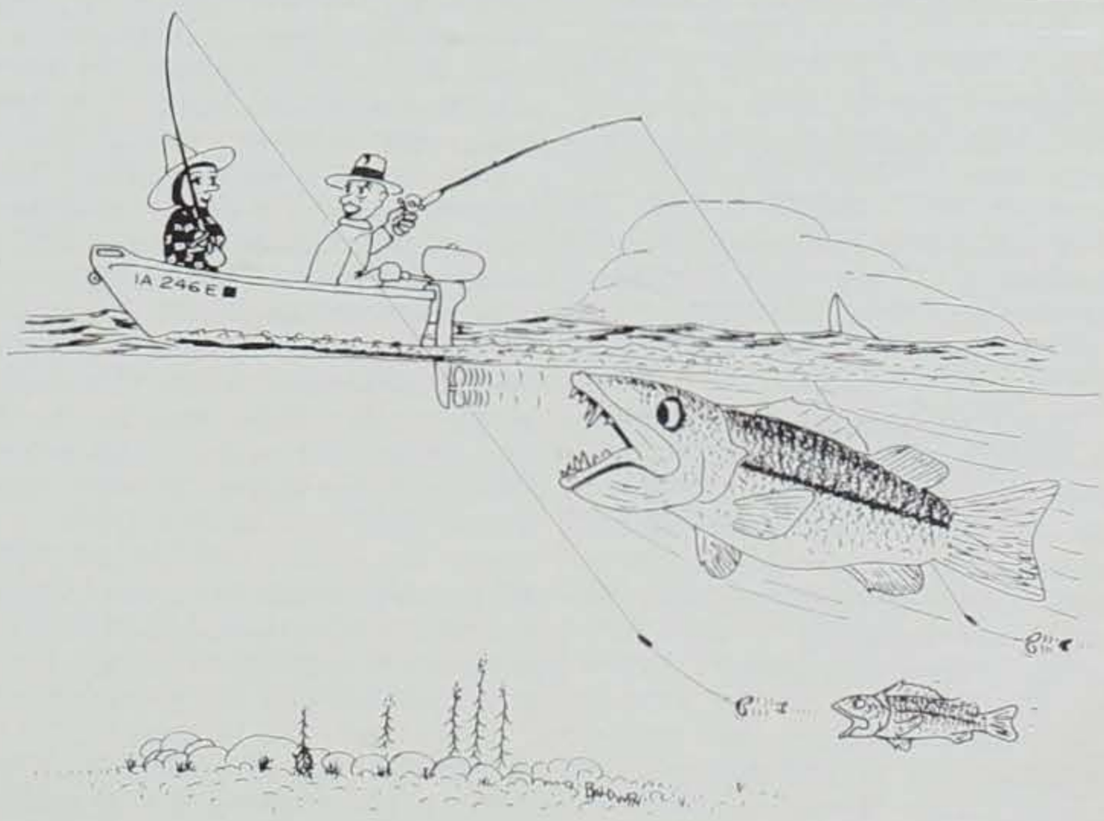
It's called Gyotaku, a form of Japanese art, and involves no more than a little time and material to make a striking conversation piece that is, at the same time, an exact record of your prowess with fishing tackle. Besides that, you can eat the fish.

To make a fish print, clean the slime off the fish by wiping it with table salt and a wet rag. Dry, giving close attention to moisture around and under the gill covers. Cut out a piece of paper several inches longer and deeper than the fish. Rice paper works best, though most any good quality paper that absorbs ink properly will do.

With the fish on a flat surface, ink one side entirely from back to belly. Use a soft bristle brush and Japanese "sumi" ink if you can find it: it dries quickly without brush marks and is water soluble so you can wash off the fish later. If you can't locate it, use India ink which works well, too. Drafting inks also come in several colors which you might want to try for a switch.

After inking, wipe the eye which doesn't print well anyhow. You can draw that in later; it looks better. Put the damp paper down on the fish, carefully spreading the fins and applying gentle pressure all over. Be a little particular around the mouth and gills. The ink shows through the paper and you can see how you're doing as you go along. Separate the fish and the paper and you have a print.

Likely you won't be satisfied with the first try and this is the beauty of the system—you can keep at it until you have a "keeper." Nor do you have to limit yourself to fish—crawdads, shellfish or other sharply outlined objects can be done up in the same fashion that reflects not only on your fishing skill, but also your artistic sense. — *From The Missouri Conservationist.*



"That spinning action should really knock 'em!"

How Was Hunting Last Season?

Eugene D. Klonglan
Asst. Supt. of Biology

Though the present thoughts of most sportsmen reading this issue of the CONSERVATIONIST will be turned toward fins and scales rather than fur and feathers, the time is rapidly sneaking upon us when the gun will again begin to vie with the fish pole for attention. Thus a summary of the results of the past hunting season should serve to whet the appetites of nimrods who are awaiting the opening of the first hunting seasons—that of squirrels and rabbits on September 10.

The relative success of the hunting season each year is obtained from a postcard questionnaire survey of a sample of the licensed hunters in the state. These are sent out soon after the close of the hunting season, except for deer where the postcard accompanies the license. Hunters are asked for information on what species they hunted, how many they bagged, and total hours and days they hunted. Their answers are tabulated and expanded to give the projected picture for all hunters in the state. It is recognized that there is no doubt some bias in this type of procedure, since successful hunters tend to reply more readily than those who failed. However, it is assumed that this is offset by the fact that no information is available from the considerable number of non-licensed hunters in the state—which include many landowners, tenants, their children, and young people under 16 who may hunt with an adult and in that case need no license. In any event, the year to year trends in the results obtained should give us an adequate picture of how good hunting was in one year as compared to others.

During the past season the take of pheasants was down considerably from the highs reached in 1963 and 1964, when 1.9 and 1.7 million birds were bagged respectively. The 1,117,500 figure for 1965 compares closely with the statewide kills averaging about 1.1 million from 1959 through 1962. The drop of over one-third from the previous year closely matched the decline in the pheasant population in northern Iowa resulting from the St. Patrick's day blizzard of 1965.

Cottontail rabbits in the bag also declined about ½ million from the 1963 and 1964 seasons. This was no doubt due primarily to the lack of snow cover and resulting poorer hunting conditions. Population surveys had indicated a very good rabbit population present. Jackrabbits bagged, however, showed about a one-third increase over the previous year. The squirrel kill showed little variation from the past two years.

Species	Statewide Bag	No. Hunting This Species	% of all Hunters Hunting Species	Total Hours Hunted	Total Days Hunted
Pheasant	1,117,500	225,735	81%	4,288,150	1,132,260
Cottontail	1,602,060	138,379	49%	2,795,255	899,465
Squirrel	1,236,400	123,640	44%	2,225,520	704,750
Quail	513,760	46,450	17%	662,405	193,705
Raccoon	254,360	17,420	6%	463,425	114,985
Waterfowl	480,700	50,600	18%	1,601,600	354,200
(Ducks)	(394,680)	(50,225)	(18%)		
(Geese)	(55,660)	(26,250)	(9%)	(Not analyzed separately since most	
(Coot)	(25,300)	(5,500)	(2%)	or all are hunted at the same time	
(Snipe)	(5,060)	(1,925)	(1%)	by many hunters)	
Fox and Coyote	88,330	40,150	15%	959,585	277,035
Jackrabbit	133,000	26,080	9%	325,975	114,745
Woodchuck	13,480	3,135	1%	48,280	14,420
Hungarian Partridge	11,500	(No good estimate since most are shot by pheasant hunters)			
Crow	178,535	22,315	8%	156,220	91,500
Deer*	8,590	25,800	9%	494,625	120,410
		275,500	Residents		
GRAND TOTALS	5,638,215	6,500	Non-Residents		
		282,000	Licensed Hunters	14,017,040	4,017,475
Gun*	7,880	21,500	8%	299,515	63,325
Bow	710	4,300	1%	195,110	57,085

*Deer figures obtained from special deer hunter report card plus estimates for non-licensed landowners and/or operators.

	Avg. Days Hunter Season	Avg. Hours Hunter Season	Avg. Hours Hunter Day	Avg. Bagged Hunter Season	Avg. Bassed Hunter Day	Avg. Bagged Hunter Hour	Avg. Hrs. to bag one animal
Pheasant	4.9	18.9	3.8	4.9	1.0	0.26	3.8
Cottontail	6.5	20.2	3.1	12.3	1.9	0.58	1.7
Squirrel	5.7	18.0	3.2	10.0	1.8	0.55	1.8
Quail	4.2	14.3	3.4	11.1	2.7	0.71	1.4
Raccoon	6.6	26.6	4.0	14.6	2.2	0.55	1.8
Waterfowl	7.0	29.0	4.1	9.5	1.3	0.30	3.3
Fox and Coyote	6.9	23.9	3.5	2.2	0.3	0.09	10.9
Jackrabbit	4.4	12.5	2.8	5.1	1.2	0.37	2.7
Woodchuck	4.6	15.4	3.3	4.3	0.9	0.28	3.6
Hungarian Partridge	(No good estimate since most are shot by pheasant hunters)						
Crow	4.1	7.0	1.7	8.0	2.0	1.14	0.9
Deer*	4.6	19.1	4.1	0.3	0.1	0.01	57.5

SUMMARY—Over 5½ million game birds and animals were bagged on over 4 million hunting trips totaling over 14 million hours of hunting involving 282,000 hunters during the 1965-66 hunting season. The average hunter made about 14 trips (days) totaling 50 hours, an average of just over 3½ hours per trip, during the season. The average hunter bagged 20 different "pieces" of game during the season, or nearly 1½ per trip, at the rate of about one successful shot each 2½ hours of hunting.

Gun*	2.9	13.9	4.7	0.4	0.1	0.02	38.0
Bow	13.3	45.3	3.4	0.2	0.01	0.002	277.8

The greatest change for any species was the much higher kill of quail during the past season. Over a half million bobwhites were harvested from the bumper crop that was available, compared to around 300,000 in each of the preceding two years. All of the various statistics shown for quail in the accompanying table pointed to the fact that quail hunting the past season was about as good as has been experienced for several years.

The 11,500 hungarian partridge bagged was a significant increase from the 8,000 of 1963 and 7,000 of 1964. The number of raccoons taken held steady at about a quarter million. Fox and coyote harvested was also about the same as last year. The kill of ducks was about the same, with geese and coot increasing considerably. About 5,000 snipe were taken, or about the same number as last year. The deer kill was down slightly, being attributed primarily to the poor hunting conditions that prevailed during the gun season.

Two new species — crow and woodchuck—were added to this year's questionnaire. It was found that a surprisingly larger number of people in the state hunt crows, and with considerable success. As might be expected there are only a small number of woodchuck hunters, and the number of "ground hogs" bagged is small. However, it is apparent that "varmint" hunting, as many call it, is an important part of Iowa's hunting picture.

MINUTES

(Continued from page 55)

BOR for Federal Cost Sharing. Program will be phased out over several years with the initial request being for $34,239.13.

Authorization was given to proceed in the advertising for sale of the 413.4 acres constituting Keokuk Lake. Bids will be opened at 2:00 p.m., August 1, 1966.

Adopted and established a policy for the Conservation Commission that in the sale of Commission lands or realty all members of the Commission, as well as all employees, will be banned from participation.

Commission approved a transfer of funds in the Fish and Game Budget to the Capital Improvements Budget.

INFORMATIONAL ITEMS

The Director reported to the Commission that Iowa ranks third in midwest State Park Attendance with more than 9 million of visitors in attendance last year.

The Commission heard a report concerning the dismantling and salvaging of materials from Spirit Lake Quarters Building on East Okoboji Lake. Permission was given to go ahead with the project.

The Commission heard a report on the status of the Large Artificial Lake Program in Iowa. These were Brushy Creek area near Fort Dodge, Volga River area in N. E. Iowa, the Woodbury-Plymouth County sites. Priority for further engineering studies was given to Woodbury-Plymouth County Project near Sioux City and the Brushy Creek Project near Fort Dodge.

Zoologists are convinced that birds are unquestionably descended from reptiles. Their opinion is based on shared skeletal characteristics.