

# Lore

VOL. 1 SPRING ISSUE NO. 2





## MILWAUKEE PUBLIC MUSEUM

Founded By The City of Milwaukee, 1853

To remain "... As a free museum for public instruction and the preservation of materials and helps for scientific investigation."

818 W. Wisconsin Avenue

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COVER: BUFFALO HUNT, from Indian drawings.

### ● FEATURES

INDIAN CRADLES, by Robert E. Ritzenthaler 30

DESERT IDYL, by Julia H. Nelson 36

FORT JEFFERSON, by Wm. E. Dickinson 42

SPRING SWEETNESS, by Emil P. Kruschke 44

### ● SHORTS

THE OSAGE ORANGE, by Albert M. Fuller 35

SPACESHIP TRAVELS, by A. J. Gillan 40

EXPEDITION BIRTHDAY, by Armin C. Schmidt 50

FRIEND OR FOE? by Kenneth MacArthur 51

WILD CHORUS, by Wm. L. Schultz 53

GEOLOGY FOR EVERYONE, by Elmer R. Nelson 54

AN AQUARIUM GEM, by James C. Hart 59

### ● COLUMNS

EYES OF THE PEOPLE 56

QUERY QUADRANT 60

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### EDITORIAL NOTES

Most of you have out-of-door hobbies. Whether your hobby be hiking, fishing, hunting, canoeing, sketching, golfing, gardening, or some other activity, the out-of-door environment may be of greater interest to you in instances than the actual program itself.

In the course of years many of you have had opportunities to make numerous interesting observations. Perhaps in your backyard a killdeer has nested. While fishing on a trout stream you may have seen a mother mink leading her brood of young along the bank, or an eagle actively engaged in its food quest. Whatever your out-of-door experiences may have been, many of them will be of interest to others. Write your most unusual experiences and send them to LORE. Those selected for publication in our *Eyes-of-the-People* column will carry the names of the authors.

It has been said that "criticism is more desirable than indifference." What are *your* opinions regarding your new magazine, Lore? We would like to publish a limited number of your comments, in praise and in criticism. In any case, your reactions and suggestions will be helpful to the editorial staff.

Ed.

### WILDERNESS TWILIGHT

Silent, the wilderness  
Rests under shading skies,  
Where sun-down's brief excess  
Westwardly dims and dies;  
Songs of the day are done—  
Night's songs not yet begun.

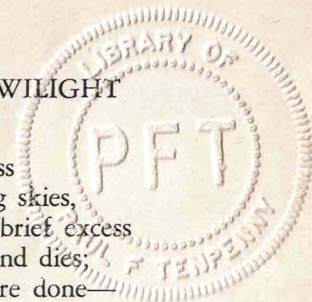
Dusk's silent shadows crawl  
Down from the shady steeps,  
Down from the timber wall,  
Over the lowland creeps,  
Veils with a velvet dress  
All the stilled wilderness.

Brief was the robin's shrill  
Laughter at evening glow,  
Wide-flung from hill to hill,  
Echo-tossed to and fro;  
Hushed is his madrigal,  
Voiceless the brooding still.

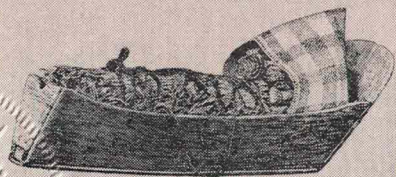
'Tis but a moment since  
Frolicked in fitting play  
Feys of the firmament,  
Breath of the dying day;  
Heavy their drooping wings,  
Broken their airy swings.

Soon will the night wind sigh,  
Soothing with drowsy breath;  
Soon will the night bird cry,  
Omen of falling death!  
This is the hour of rest—  
Silent the Wilderness.

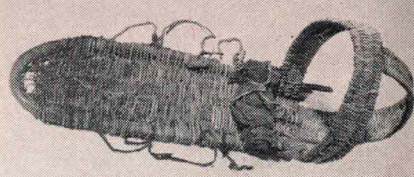
—Robert Glen







KWAKIUTL



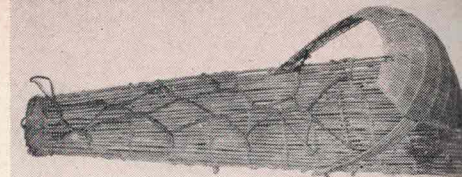
HOPI



POMO



CHIPPEWA



PAIUTE

# Indian Cradles

by  
**ROBERT E. RITZENTHALER**  
Assistant Curator of Anthropology



CHINOOK, from a Catlin drawing

**W**HAT DID the Indians call the thing they carried their babies in? This is the question that the Museum's Anthropology Division is called upon to answer more frequently than any other. We first explain that the English term for this combination cradle and baby carriage is "cradle," or, for the specific type used in the Wisconsin area, "cradle-board." Then we point out that the American Indians spoke a variety of languages, some as different from one another as English and Arabic; that an Iroquois Indian could no more understand a Navaho than a Greek can understand Tibetan. Thus the Indian name for the cradle depends entirely upon what tribe of Indians you are talking about.

A few examples will illustrate how different the term can be. The Wisconsin Chippewa, who speak an Algonkian language, call the cradle a *tikinagan* (rhymes with "sticky toboggan"). Our Siouan-speaking Winnebago Indians call it *hochji* (rhymes with "ach chee"). A New York Mohawk, speaking Iroquois, calls it *karbon*.

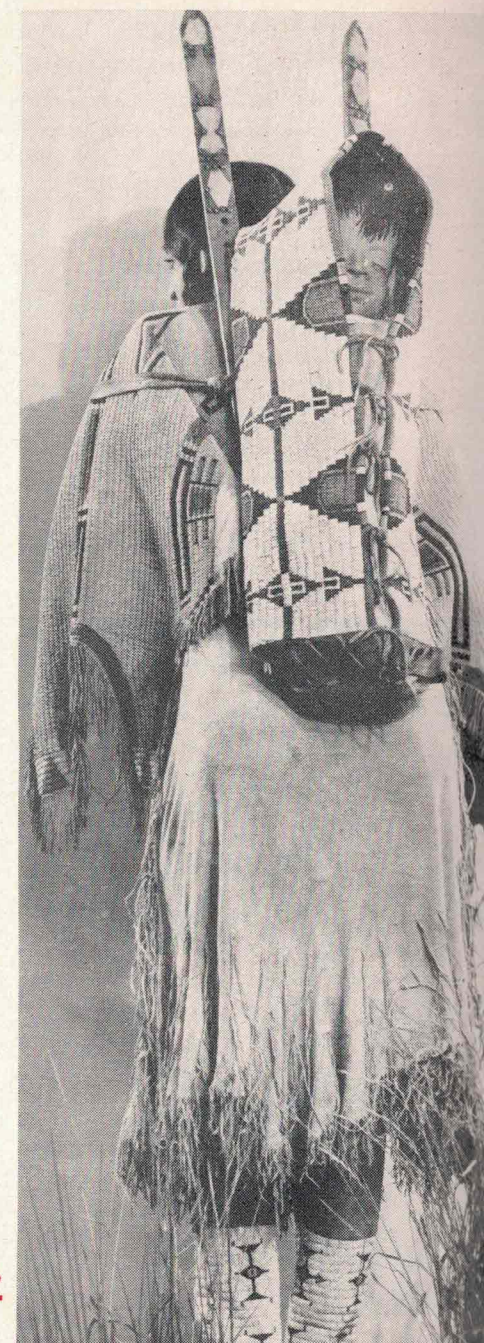
Not only did the names vary, but the different tribes had their own ideas as to how a cradle should be made and used. The Chippewa, for example, took a cedar board about two feet long, ten inches wide, and three-eighths inch thick, and fastened a foot brace at one end and a head-protecting hoop near the other. A padding of soft and absorbent sphagnum moss was laid on the board to serve as both mattress and diaper. The infant was placed on the padding and securely bound to the board by means of two cloth or buckskin wrappers: strips about four feet long and nine inches wide, and usually gaily decorated with quill or beadwork.

The infant was bound onto the cradle-board a few days after birth and spent the major portion of its first six months of life on it. The infant was removed from the board once or twice a day to change the padding, but was usually nursed while on the board. The arms of the very young baby were bound to the body by the wrapping, but later on the arms were freed. When the child began to walk, the cradle-board was discarded.

The primary purpose of the cradle-board was to serve as a bed: one which could be used either horizontally or vertically. If the mother was working outside the wigwam, she could hang the cradle-board from a limb, or rest it against the trunk. If a gust of wind blew it over, the hoop over the head absorbed the shock of the fall thus protecting the child against injury.

The cradle-board also served as a baby carriage. When the mother went on a journey, the cradle-board was slung on her back and held in position by means of a buckskin band passed around her forehead. In a sense the cradle-board also served as a play-pen, and a variety of toys were hung from the hoop for the baby to watch or play with.

While the general type of cradle just described was used by most of the tribes east of the Mississippi, the tribes to the west had a variety of different styles. The buffalo-hunting peoples of the western Plains, such as the Plains Sioux, laced the infant in a skin bag supported by a slat framework. The exterior of the bag was often elaborately, and sometimes completely covered with quill or bead



PLAINS SQUAW AND PAPOOSE



designs. The Plains tribes also had the interesting custom of enclosing the navel cord in a decorated bag, in the shape of animals such as turtles and lizards, and hanging the object on the cradle or around the infant's neck as a protective and good-luck charm.

The Hopi Indians of Arizona used several styles of cradles. The one illustrated here is made of basketry. It has a one inch rod bent in a hairpin shape, and filled in with wickerwork. The circular head loop is joined and held in place by a wickerwork band coming up from the back. The Hopi child was wrapped in soft buckskin, and secured to the cradle with thongs.

Among the Chippewa it was the task of the father to make the cradle, but for the Hopi it was the job of the grandmother on the father's side. In some tribes it was the custom to make a new cradle for every child, while among others it was a sacred object to be handed down from one generation to another.

The Pomo Indians of California also used a basketry cradle. The infant spent the first month on a temporary cradle of matting, after which it was transferred to the rigid permanent one. The latter was a short, scoop-shaped affair made of wooden rods sewn together, with a circular hoop serving as a head protector and also to hold the shape of the cradle. It looks too small for even a baby, until one remembers that the baby sat in the curved bottom with its legs hanging out. The padding consisted of shredded tule reeds. Objects such as tiny baskets and feathers were suspended from the hoop, but, as the baby was wrapped and laced so securely that it could not move, these trinkets were there to be seen, not played with.

POMO, courtesy Chicago Natural History Museum



The Paiute Indians of Nevada used a cradle just about twice the length of that of the Pomo. It consisted of a flat, wedge-shaped foundation of willow rods with a neat basketry awning above to protect the child against sun and injury.

One of the most unique styles of cradles is to be found on the north Pacific coast. There, among such tribes of British Columbia as the Kwakiutl and Haida, the cradle consisted of a trough-shaped box made of cedar boards. The baby was placed inside on a bedding of shredded cedar bark supported by a rod framework, and laced in. The head was sheltered from light and insects by means of a hood of matting.



CHIPPEWA



PAIUTE



The use of Indian cradles has a rather interesting distribution. While nearly every tribe in North America north of Mexico had some type of rigid cradle, we find the cradle replaced with the sling and hammock in the tropical areas of Central and South America. As you enter the temperate regions of southern South America the rigid cradle reappears. This correlation of the rigid cradle with cooler climates is understandable in terms of the discomfort the wrapping of an infant onto a cradle would cause in tropical areas.

There has been some concern over the possible harmful effects of binding a baby in a cradle for such extended periods. However, no ill effects seem to arise from the process. In fact the Indians claim beneficial effects for their method of cradling, particularly from the standpoint of developing an erect posture by the continual contact of the baby's spine with the flat surface of the cradle. It was certainly a valuable protective device for a baby raised in a primitive setting. It prevented the baby from crawling into the open fire, or falling into the water if the family lived on the shore of a lake or river, or straying too close to the edge of the Pueblo rooftop that a Hopi family might be gathered on.

There was one permanent effect of certain methods of cradling. If the head of the infant was allowed to come into direct contact with a hard cradle-board a flattening of the back of the head took place which persisted throughout life. This, of course, could be easily prevented through the use of padding, but some groups, particularly those of the Southwest, did not deem it important to do so, and others, such as the historic tribes of Wisconsin, did not use sufficient padding.

There were also a number of tribes in which they intentionally deformed the head of the infant by applying mechanical pressure. The Chinook, for example, a tribe living along the Columbia River, placed the infant on a board and attached another board over its forehead at about a 25-degree angle. Steady pressure on the second board by means of a cord eventually flattened not only the forehead but also the back of the head, resulting in a permanent gable-shaped head. It was not a painful process, being done while the bones of



the head were still very soft, and produced no harmful effects. To the Chinook it was a mark of distinction, and a normal head was permitted only to slaves.

The primitive cradle is almost completely out of use among the American Indians of today. There are some cradle-boards still to be found among our Wisconsin Indians, but they are kept primarily as heirlooms and it is rarely that a child is raised on one at the present time. Only in the Southwest, in the states of Arizona and New Mexico, is the cradle still used to any extent. Among such tribes as the Navaho, Apache, and Hopi they may still be seen in use, but it is only a question of time until this interesting device disappears from Indian life entirely and will have to be sought for in our museums.



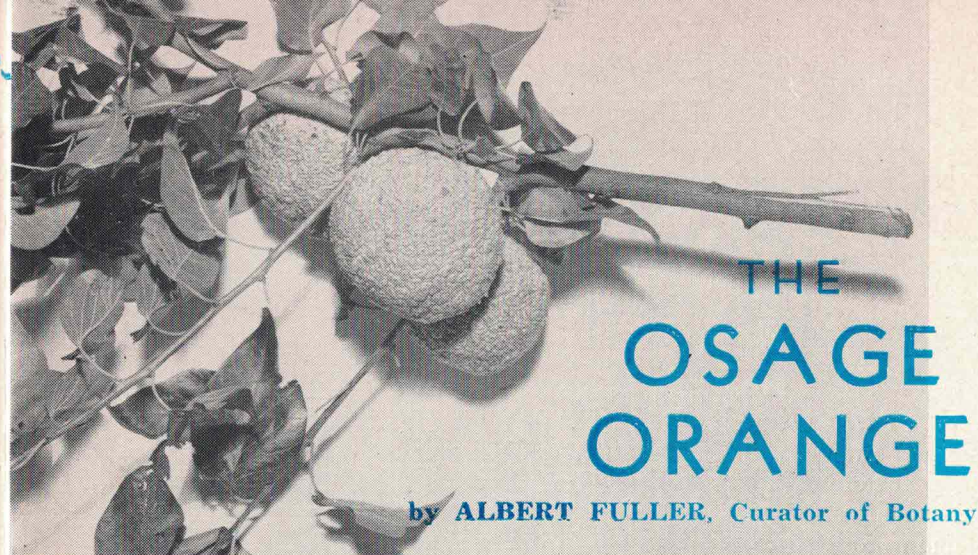
Yep!

According to an article in *Natural History* (v. 50, 7), the eye of the horse is larger than the eye of an elephant in spite of the great difference in size. The horse has the largest eye of any of the land animals, and with it very good vision both by night and day.

The cat's eye has a built-in reflector, a mirror-like layer behind the retina instead of the usual light-absorbing pigments. This causes the eye to glow in the semi-darkness like the beaded signs so popular along the highways. Its purpose is to make the eye more sensitive to the almost imperceptible light of night by reflecting it back to the sensitive retina, thereby giving it a second opportunity to affect the cells of visual sense.

The kingfisher has an interesting double eye system. One is well adapted to use under water, the other well suited to travel by air. The under-water system is grossly nearsighted in the air but perfect for the under-water pursuit of the kingfisher's prey. The out-of-water visual apparatus is equally bad under water.

Penguins that also pursue their food under water with normal vision for that job, have an unenviable reputation for nearsightedness on land.



# THE OSAGE ORANGE

by ALBERT FULLER, Curator of Botany

ONE MONDAY evening in early October Rachel Ann met me at the door. She held a large, orange-like fruit in her hands, yellowish green in color. The surface of the fruit was roughened and tuberculated in appearance. She greeted me with, "Daddy, Jack Brown, one of my classmates, spent the week-end in Indiana and he found some of these odd fruits. Is it some kind of an orange?"

The osage orange or hedge apple always arouses the curiosity of folk who are unfamiliar with it. Its fruits, which are inedible, are brought to the Museum for identification nearly every autumn.

The tree, which originally was restricted to southern Arkansas, southern Oklahoma, and northeastern Texas, grows from 20 to 60 feet high in height. It has a short trunk and a round-topped crown, and the twigs are armed with sharp spines. The conspicuous fruits, 4-6 inches in diameter, are borne on spur-like branchlets.

The orange-yellow wood, which is hard, strong, and flexible, was highly prized by the Osage, Kiowa, Pawnee, and Blackfeet Indians as material for bows. The southern tribes traded it with northern and western tribes, especially those of the plains. The voyageurs called this wood, *bois d'arc* (bow wood), because it was used so extensively by the Indians in making bows.

Toward the middle of the nineteenth century, the osage orange hedges came into use as fences everywhere from the Gulf to as far north as the peach is hardy. Wire fences were unknown and farmers in the prairie states found hedges cheaper than wooden fences, and more enduring. The trees grew like weeds and were set by the millions. The rich green of the foliage and the large orange-like fruits made a handsome hedge. By 1860, there were thousands of miles of hedge fences in the Middle West. Eventually the wire fence was found to be cheaper and better.

Although southern Wisconsin was too cold for extensive plantings of the osage orange, a few trees are still occasionally found in Grant, Lafayette, and Racine counties.



# DESERT IDYL

by JULIA H. NELSON

IT WAS a narrow, crooked road that led to this tucked-away corner of Paradise. We jolted over the dusty, stony ruts and persevered only because the Chisos Mountains, fantastically beautiful in the late afternoon light, promised to be of geologic interest if nothing else. And the Rio Grande valley to the south of the Chisos was still more beautiful, we had been told.

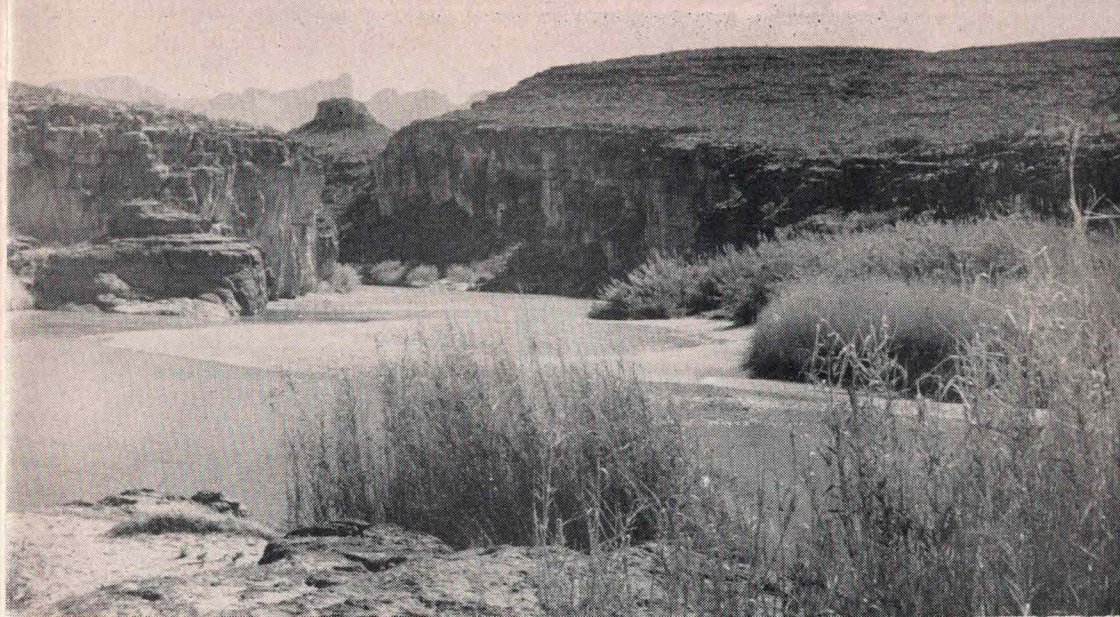
This is the Big Bend National Park in Texas that we speak of—not too well known yet, for although it is the second largest of the parks, it is the newest, and the war years retarded its development. Hence the stony ruts that we rattled over four years ago.

As we neared the mountains we could see how abruptly they rose from the desert floor, a veritable island of mountain peaks. Scientists refer to the Chisos as a biologic island, because within a few thousand vertical feet there is an amazingly great range of fauna and flora—from Sonoran to Canadian.

We spent a cold crisp night high in the Basin, an amphitheater within the heart of these hills, and though we enjoyed the invigorating atmosphere, we were eager to set out for the Rio Grande.

In the bright morning light we could appreciate still better this desert park we had come to visit. It consists of a great triangular segment of exotic desert land more closely akin to Chihuahua and Coahuila, Mexico, than to the rest of Texas. This is not to be wondered at, for eons ago, when the Rio Grande was carving canyons in rocks that yielded to its abrasive power, it little heeded the fact that it was also inscribing linguistic and political boundaries.

Sweeping around the Chisos Mountains to the south and encroaching upon the flanks of the block mountains to the east and west, the desert resembles a miniature forest of mesquite and greasewood. The regularity of the pattern in which the greasewood naturally propagates itself is such that, viewed from a height, it looks like a cultivated orchard. Tall yucca in white waxy bloom, and prickly-pear cactus just starting to open add glamor to the scene. Clumps of sharp, dagger-like lechiguilla bring to mind what our history books told us: the Sahara camel, accustomed to vast stretches of barren sand, found our rugged American deserts impenetrable.



THE RIO GRANDE RIVER—INTERNATIONAL BOUNDARY BETWEEN U.S. AND MEXICO

In the late afternoon light, the Chisos, which had so attracted us the day before, assumed once more their ghost-like quality. Their name means "ghosts," and ghosts they are—remnants of great volcanic cataclysms which once shattered the wilderness silence and then abated. As the morning hours pass by, these ghosts, which geologists would prosaically call plugs, dikes, and agglomerate crags, boldly dominate the landscape; but with the setting of the sun they become violet shadows, cardboard forms which soften in contour and finally disappear into the earth from which they were once so violently extruded.

A turn of the road, a falling away of the land at our feet, and there were new wonders to behold. We were now face to face with the Del Carmen Mountains in Old Mexico—red as their name in the late sunlight. We hurried on. Twilight in this latitude is short lived. We crossed an alkali creek—without benefit of bridge, and climbed on to a rocky ledge that finally dropped us into the Rio Grande valley. The sun, alas, had set. The Del Carmens were grey; the river we had so longed to see was colorless in the darkness. We must wait till morning to judge whether this long trip was to fulfill our dream of peace and quiet and beauty.

In the early morning a dense mist hung over the river and all but obliterated it from our view. Dense canebrakes on the river banks looked eerie and unreal through the haze. The rising sun gradually dispelled the mist as we avidly drank in the beauty of the scene before us—domes of dazzling white limestone against a deep blue sky; ledges of red sandstone; the feathery green of the canebrakes; the golden sand at our feet; and the river itself, the blue of the morning glory.

"Oh world, I cannot hold thee close enough—  
Oh world, I cannot hold thee close enough."

The lines went through my mind over and over again. A poet's words, not mine, could express what I felt.





MEXICAN RECEIVING MAIL ON U.S. SIDE OF RIO GRANDE RIVER

We could see plainly now the end of the road which we had traveled on the night before: down off the ledge, around a bend, and then an abrupt stop in front of a low, stone building—the trading post at Hot Springs, Texas. Several yards to the east is a row of stone-block cubicles, now cabins for overnight Park visitors, but meant originally for ranchers who came to be comforted and healed in the hot mineral waters which gush from the river bank.

This is Hot Springs, Texas. The permanent population consists of Mrs. Margaret Smith, whose versatility you shall hear about later; the chief industry, international trade; its claim to fame, the smallest post office on the longest route, serving two nations. There is no other postal service across the river and south into Mexico for a good hundred and fifty miles.

Mrs. Smith, by virtue of being the only permanent citizen of Hot Springs, is keeper of the trading post, post mistress, dispenser of pharmaceuticals (such as Grandma's Colic Syrup and Baby Percy), landlady to infrequent tourists and rheumatics, good friend and midwife to the scattered Mexicans who herd goats in the mesquite hills on this side of the Rio Grande and across it. She is, in short, an international figure. She lives there the year round with her dog Blueberry, three anonymous cats, a few hens, a few turkeys, a marcelled black and white pig, and a cow.

"I ain't supposed to have animals in a national park," she explains, "but I'm so all alone and so far away that no one pays me much mind."

"Aren't you afraid, here all alone?" is a stock question of the tourists.

"Nuthin' to be afear'd of," she replies. "I'm as much at home among these rocks as an old wild goat."

Typical of her approach to life is this story. One day a young couple stopped in front of the post. Mrs. Smith could hear the argument even before the motor was turned off. The wife wanted to get out of this "God-forsaken place," and she wasn't going to waste any time walking down to the river's edge. She had seen enough of this rough country. The

man, in husband-like way, grabbed his camera and off he went toward the river.

Presently the young woman stormed into the trading post.

"I'm walking back to town," she said, "and you can tell him so."

"Exactly the right thing to do, ma'am," said Mrs. Smith.

"How far is it?" the younger woman demanded.

"Eighty-six miles, ma'am."

Away flounced the girlish figure over the rough and flaggy road, clad in shorts, halter, and toe-less and heel-less sandals.

Soon the husband returned and, poking his head inside the door, asked, "Seen my wife?"

"Yep. Just start driving and you'll find her up the road a piece. She's walking back to town."

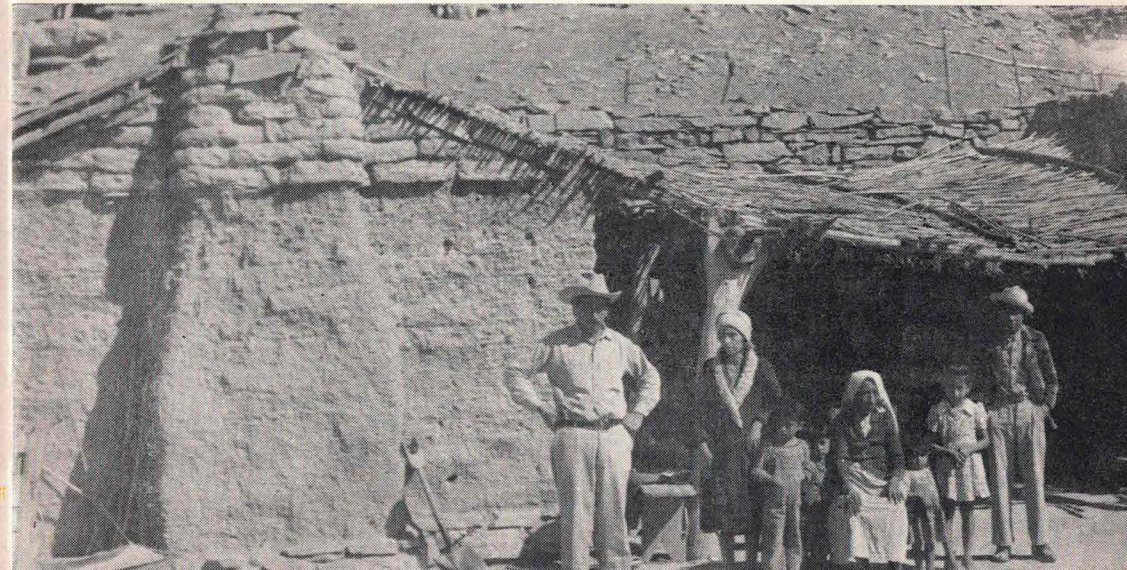
"What would you do with a woman like that?" he asked—rhetorically, of course. But Mrs. Smith thought he wanted an answer.

"Well, sir, if you ask me, I'd take me a long thorny stalk of ocatillo and I'd start in where them short pants of hers leave off."

Fortunately there are very few who fail to love the beauty and the tranquility of this isolated wilderness. Increasingly more visitors venture past the Chisos and go down into Hot Springs or to the canyons that are within the Park's boundaries. The names themselves are lyrical and inviting: Bouquillas, Meriscal, and Santa Elena. All are beautiful in the way that azure and red and gold can be beautiful. "Color" is the password in Big Bend. It abounds in color. The Santa Elena is a deep cleft in an escarpment wall. It is nature's prototype of a textbook diagram of what a canyon ought to look like. Though typical, it is nonetheless of such great magnitude and such vibrant color that it must be numbered among the most beautiful canyons of the southwest.

We cherished the hours we spent with the Mexican families even more

MEXICAN SHEEP HERDER AND FAMILY AT HOME ON U.S. SIDE OF BORDER





than the hours we spent in geologic study, for pastoral life on the river banks is fast disappearing, whereas the mountains and the monoliths will outlive us all. The Mexicans were at first wary of our presence and shy of our cameras. When they learned that we had not come to evacuate them nor to inquire too closely about the legality of their residence on either this or the other side of the river, they relaxed. A few even went so far as to ask Mrs. Smith to ask us to photograph their homes and their goat herds. Their houses are crude reed-and-adobe huts, but they are cherished because they are home to these simple, nature-loving folk who are being uprooted because their land has been appropriated by the Park.

We waded the river and visited a most primitive little village on the south bank; no school building as such, no church building as such, only crude dwellings of a poor people. Yet they sang for us and played their mandolins and violins. They invited us into their homes for meals, and served us on beautiful hand-embroidered linens. And on Mondays, the weekly mail day at Hot Springs, these same people would come to get their mail. We saw them read it themselves. They wrote their own letters themselves. Their handwriting was a fine artistic script that we associate with the cultured rather than with the illiterate. Their clothing, though appropriate for their surroundings and their labors, was neat and clean. Their faces were clean shaven. They were a likable people.

Our four-year-old son was at first a source of amusement to their children, and he, of course, laughed at them. But in no time at all they would devise a means to bridge the gap between them—a game of hide-and-seek, played in any language; the sharing of a bag of candy, sweet in any tongue; or the cooperative building of a dam across a rivulet. What better beginnings of international understanding could we ask for?

Yes, Big Bend on the Rio Grande fulfilled our dreams for a place of quiet and beauty where the mind can find stimulation as well as rest. It is a wild magnificent wilderness, and we long to hold it closer.

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## SPACESHIP TRAVELS

**W**Henever I go into my favorite smoke shop for my usual brand, I am attracted by the colorful magazine covers, especially the kind that show a ravishing female struggling in the clutches of a six-armed monster with three eyes on tentacles. Science-fiction! (It's an amazing biological phenomenon that the other planets, according to these stories, seem to be peopled with beautiful women and ugly beast-men.) The daring young space explorer pilots his ship to the remotest corners of the universe and has the wildest adventures in which he eventually rescues the fairest damsel of them all. Of course, the stories take place in the 21st Century, and they are very scientific!

Are they? Are we on the verge of spaceship travels? Rockets and atomic power are here today. Are we about ready to make the kinds of journeys that these magazines describe? There are certain problems involved which might make trouble, including one of cost.

Let's assume that we have a ship that can stand the cold of outer space (or is it the heat?), and can travel at fantastic speeds with atomic power. We enter our ship and start. Our destination is Mars, representing the shortest, easiest trip we can take beyond the moon, and we choose a time and course that will be most advantageous. We will travel a mere fifty million miles!

Being of good, sound physique, let us assume that we can stand an acceleration three times faster than a falling stone for a period of seven minutes! After that time we will reduce our acceleration to about the same rate as a falling stone, and will then feel about as comfortable as a person on the steepest drop of a roller coaster.

By the end of the first seven minutes we have travelled 1670 miles and have a speed of almost 27,500 miles per hour, which is over seven miles per second. In about twenty-five hours we reach the mid-point of our trip, traveling at a speed of almost two million miles per hour, or nearly 550 miles a second. We now reverse our ship and start slowing down. This process will take another 25 hours and use as much fuel as the speeding-up process. Of course, if you are the type of person that can't stand roller coaster drops for better than two solid days, you can drift along at the snail's pace of 27,500 miles an hour for about 77 days.

Now we must consider fuel. First we must use some fuel to get away from the pull of the earth on our spaceship. We also need fuel to produce acceleration. If we get 200,000 miles away from the earth we can forget the pull of the earth beyond that distance. A body falling from that height will have just about as much speed as we gave our ship during the first seven minutes of flight, so if we use just twice as much fuel for the first seven minutes as we need to get our speed, we will take care of the work required to overcome the pull of the earth. This figures to about 240,000 kilowatt hours of energy. An additional four and a half billion kilowatt hours will take us to the half way point. For a round trip then we should have fuel enough to furnish about twenty billion kilowatt hours of energy. This is based on a tiny two-ton ship.

If we can convert mass into energy with an efficiency of one per cent, which is very good for present bombs, we will need about 80,000 grams of fuel. Roughly then, our fuel will take up about 35 lbs. of weight. However, the fuel must be properly packed, which may increase the weight by a ton. This will give us a three-ton ship and load, which calls for about 120,000 grams of fuel.

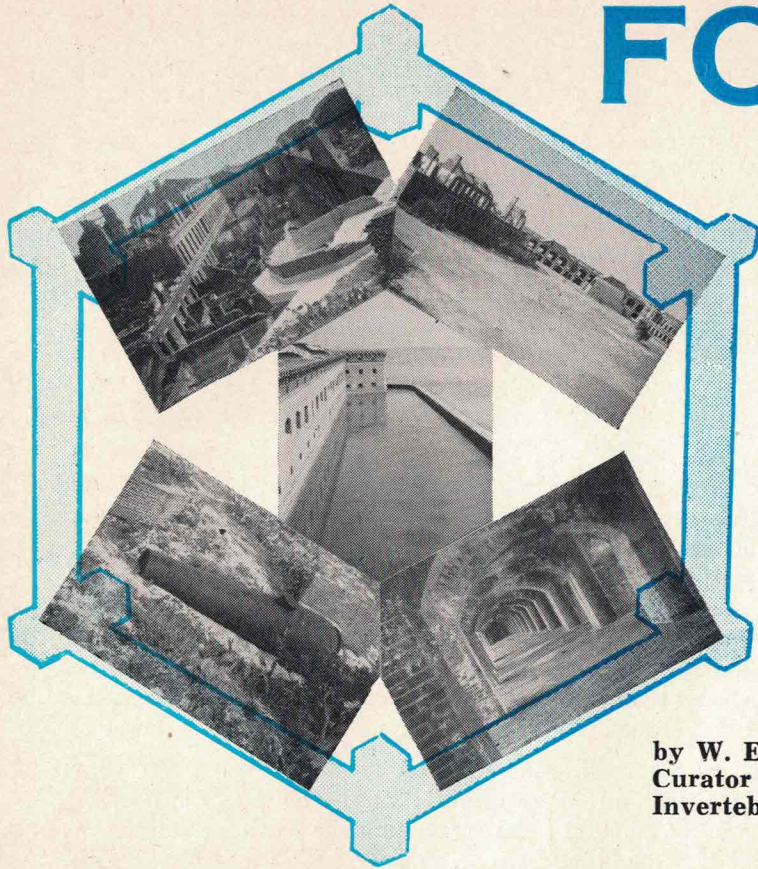
The cost of such a fuel cannot be less than \$25,000 to \$50,000 a gram. So our fuel bill will be a mere matter of some three to six billion dollars. Well, so long Mars!

A. J. GILLAN.



# FORT

# JEFFERSON



by **W. E. DICKINSON**  
Curator of  
Invertebrate Zoology

*The three-story Officer's Quarters (upper left) were meant to house 36 officers and families.*

*The parade ground (upper right) saw more of the prisoners and the constant flow of workmen than it did of parades.*

*From the moat (center) the fort received much of its fame, here, the story goes, vicious man-eating sharks were harbored.*

*The cannon (lower left) were never set in place either on the bastions or in the casemates (lower right).*

**D**RY TORTUGAS"—a term to be feared from 1846 to 1874, a term that meant the American equivalent of Devil's Island, a place of hordes of torturing mosquitoes, worse than desert-like thirst, inhuman jailers, extreme heat, hurricanes, and pestilence.

Where was this place? About 180 miles southwest of Miami, almost on the Tropic of Cancer, 68 miles out to sea from Key West.

Once envisioned as the "Gibraltar of the Mexican Gulf," millions of dollars in federal funds were spent in an effort to build a gigantic fort here. The fort was never completed though work continued for almost 30 years.

Perhaps it was a cumulative desire, built up by reading such stories as

"Captain Blood," by R. Sabatini; "Jack Tier," by J. Fenimore Cooper; or other more recent works that aroused my interest in this most far flung of our ancient fortresses.

At any rate, when opportunity offered, through the good offices of the U.S. Coast Guard, the writer jubilantly set off for historic Garden Key, the site of Fort Jefferson. A nine-hour trip on a buoy tender brought us to the Dry Tortugas, a coral reef with several islets or keys large enough to have habitations. Garden Key is the site of Fort Jefferson, and Loggerhead Key, two miles away, is the site of a lighthouse.

At a distance the fort is not prominent, but close approach shows it to be over three stories high, and faced with fourteen million hand-made red brick shipped from New England. There is an obsolete lighthouse on one wall. The entrance or sally port is reached by crossing a foot bridge over the 75-foot-wide moat. The moat was originally 10 feet deep, and connected with the sea so that voracious sharks could enter.

The fort is hexagonal with bastions at each corner. The walls are 8 feet thick and the casemates are floored with granite. There were places for 450 cannon, arranged in three tiers, and a garrison of 1500 men.

Garrisoned by Union forces throughout its history, it was never a factor in the Civil War. Only one Confederate vessel approached and was sent scurrying away when the fort's commander threatened to shoot a broadside, from cannon not even fully installed! The fort's guns consisted of 15-inch smooth-bore, and 10-inch rifled cannon.

Due to the hordes of mosquitoes, there were periodical outbreaks of Yellow Fever, the worst coming in 1867 when all but ten inmates succumbed.

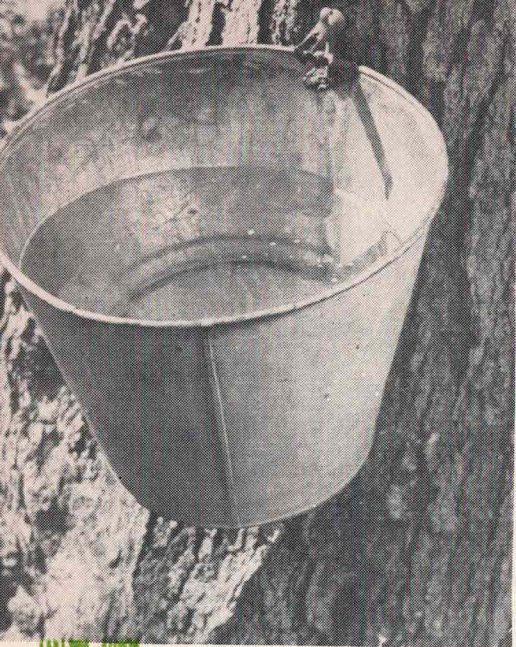
It was in one of the cells over the sally port that Dr. S. A. Mudd spent four years as a prisoner for unwittingly assisting John Wilkes Booth, Lincoln's assassin, in his attempted escape. During the 1867 epidemic, Dr. Mudd so distinguished himself that President Johnson pardoned him. The story of Dr. Mudd was made into a motion picture in 1936, with Warner Baxter as "The Prisoner of Shark Island."

From Fort Jefferson the ill-fated Battleship Maine, in 1898, set forth for Cuba, about 90 miles away.

In 1935 the area was made a national monument and wild-life refuge. Under water one sees marine gardens of great beauty; overhead fly thousands of noody, sooty, and least terns from their nesting places on Bush Key, one-half mile away. The eggs were once taken away by the bushel-basketful to be sold in Cuba or Key West, before the area was protected. Even today one often sees the gigantic turtles, or "tortugas," for which this arid area was named by Ponce de Leon, in 1513.

Many are the tales of pirates in this area, and there is probably much wealth on the sea bottom, now overgrown and hidden by the living coral animals that build up these islands.





# Spring Sweetness . . .

by **EMIL P. KRUSCHKE**  
Assistant Curator of Botany

Anyone who has had the delightful experience of tapping maple trees, making maple syrup, and participating in the various activities in the sugarbush in spring will forever look upon the hanging sap buckets and rising smoke from the syrup house as the real harbingers of spring.

Join me in retrospect on a trip to a nearby sugarbush on the Martin farm near Big Bend, Waukesha County. The time is about the second or third week in March, and already the bark of

the red osier dogwood and willows are flaunting their brilliant hues of red and orange-yellow. Spring is in the air.

A short walk from the farm buildings brought me to the edge of the largest maple grove in southern Wisconsin and one of the finest stands of virgin sugar maple to be found anywhere in the state. There are over 300 acres of virgin mixed hardwood, and every acre is kept in the best condition. The maple trees here have been tapped by the Martin family for over 100 years. Little wonder that Everett Martin has frequently been referred to as the Dean of the state's maple sugar makers.

Entering the woods, it was pleasant walking through the large grove of maples "hung" with bright sap buckets, for almost as far as the eye could see. Walking over the thick, wet, leafy, sponge-like layer carpeting the floor of the woods, it was fascinating to go from tree to tree with a sustained curiosity as to how much sugar-water each succeeding sap bucket contained. This peering into bucket after bucket soon led me deeper and deeper into the woods. Coming upon a tree with its bucket brim full of crystal-clear sap, what a treat it was to hold up the pail and drink of the cool sweet contents. No other drink in this world is more tasteful and effective in quenching one's thirst than sap from the sugar maple.

The conditions that make for a good "sap run" are abundance of moisture (from an abundance of snow) and chilly, freezing nights alternating with warm, thawing, sunny days. The more

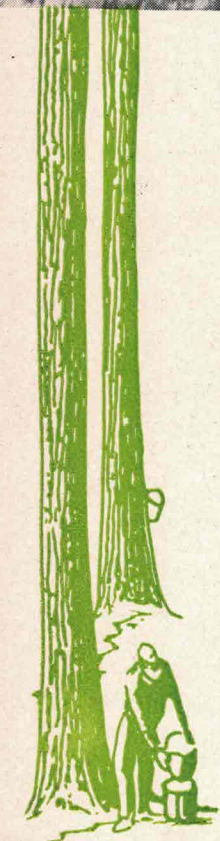
The making of maple sugar is synonymous with Spring.

of this kind of weather during the tapping season, the greater the season's yield of sap. According to Mr. Martin, the amount of frost in the ground has nothing to do with the season's yield of sap. The best run of sap occurs in a gradual spring; a sudden and rapidly thawing spring means a small sap flow. Such factors as density of the woods and whether or not the woods is heavily grazed are also important deterrents in the annual sap yield of the sugarbush.

Usually the first or second week of March is the average date for the tapping of the trees. Beginning with the selection of the tree, a place waist high on the trunk is selected for the spile. By means of a sharp steel auger a small hole is drilled at a slant to a depth of 2 to 2½ inches. Since the sapwood is the part of the tree that the sap comes from there is no need of boring the hole deeper. Likewise, there is no need of drilling a large hole as was done by the early white settlers, for as Mr. Martin says, "as much sap is secured from a small hole as from a large one." A small hole leaves a smaller wound for the scar tissue to heal over, thereby decreasing the possibility for fungus infection. After the taphole is drilled and cleaned out, the tapered end of the cylindrical metal spile or spigot is driven tightly into position. Hanging of the sap bucket on the spile completes the tapping operation.

Ten-quart metal buckets (some made of tin, others made of galvanized iron), some open and some equipped with attached roof-shaped covers, are used. The covers prevent leaves, twigs, bark, rain, and snow from falling into the sap buckets. The roof-shaped covers being open at the ends allows for aeration and prevents souring of the sap in the event it is not collected for several days. However, the ends being open, frequently such insects as beetles, moths, and tiny sap flies gather in the buckets, attracted by the sweet

SUGAR BUSH ON MARTIN FARM





sugar-water. These are removed from the sap when it is strained.

Noticing that most of the sap buckets were on the north side of the trees, my hunch that such position was selected with fore-thought was affirmed by Mr. Martin in the following explanation: "The trees are tapped on the north side if the season is late, on the south side if the season is early. When the season is late, as it is this year, and the trees are tapped on the north side, the sap will run about a week longer than if tapped on the south side; also, being later in the season, the sap in the buckets on the north side, being in the shade, is less likely to sour than if on the south side."

What effect does the tapping of the trees year after year have on the health, vigor, and longevity of the trees? The effect of tapping and removal of sap from the tree, according to Mr. Martin, is no greater than that of a mosquito biting and sucking a drink of blood from a person. However, this is assuming that trees less than ten inches in diameter are not tapped and only one spile (at most two spiles in the largest trees) is placed in a tree. Putting too many spiles in a tree in one season forms an abundance of dead tissue in the sapwood which damages and shortens the life of the tree considerably.

How much sap does it take to make a gallon of syrup? Mr. Martin says anywhere from thirty-five to forty-five gallons, depending upon whether taken early in the season when the sap is sweeter or late in the season when the sap is thinner and less sweet; whether the season is dry or wet; and whether the sap is from the rock maple or from the soft maples. Much snow, which yields lots of moisture, means a bigger sap flow; the sap is not quite as sweet, however, as in a dry year. Sap from the rock or hard maple is considerably sweeter than that obtained from the soft maples.

There is also a variation in sweetness of the sap among the various individual trees of the sugar maple. Just as some cows give richer milk, so some trees give sweeter sap. Recently a sugar maple, christened "Sweet Sue," was found near the campus of the University of New Hampshire, the sap of which contained about nine per cent sugar—about three times sweeter than that of the average sugar maple. There is also a difference among the individual trees as to the rate of sap flow and as to the total yield of sap

for the season. In some trees the sap runs slowly, in others the sap runs much faster. The average run of sap is from one to one and one-half (or two) gallons per day per tree. Mr. Martin told of one tree in which the sap ran so fast it filled a ten-quart pail four times in the course of twenty-four hours. One is curious as to the possibility of some plant breeder, crossing this tree with "Sweet Sue" and producing a super-sugar maple that might be used to restock our fast diminishing groves of sugar maple.

Hearing sounds of a moving wagon and people's voices, I turned in their direction and saw Sidney Martin, with three additional helpers, gathering the day's run of sap. The low, rubber-tired wagon loaded with a 120-gallon completely enclosed galvanized sap-collecting tank, was being drawn through the woods by a heavy team of horses. Following a tortuous trail through the woodlot and stopping at numerous intervals for the loading of sap from the sap buckets was fascinating to watch. In what seemed a rather short time the tank was full; the lid was fastened to prevent the sap from spilling out in transit and away it was drawn to the evaporating house.

While slowly following the sap wagon I asked Mr. Martin how often they collected the sap and how many round trips were necessary in the course of a day's collecting. I was told that at the height of the "sap run" the buckets are emptied twice a day and that a single day's collection is anywhere from five to ten tank wagon loads of sap. The record for the amount of sap collected in a single day in the Martin farm sugarbush was thirteen tank loads or 1,560 gallons. On days when the weather is less favorable one collection a day or every other day is made, the number of tank loads collected may drop as low as one or two per day or even every other day.

As the conversation ended we found ourselves standing next to the wagon which was now parked on the unloading platform. Looking about, it was quite evident that from here on the force of gravity would be utilized in moving the sap, thereby saving time and much tedious effort. By the tri-level arrangement of the unloading platform, the two twenty-barrel capacity sap-storage tanks, and the evaporating pan, the sap flowed by gravity through pipes from the collecting tank to the evaporating pan, the rate of flow into







COLLECTING SAP IN SUGARBUSH

the latter regulated by means of a control valve. The sap is strained when it is run into the two large storage tanks situated at the intermediate level.

The evaporator, located on the third or lowest level, occupies the main portion of the syrup house. The evaporating pan, resting upon the long brick firebox, is 14 feet long and 42 inches wide and about 6 inches deep. It is provided with 24 2-inch high cross pieces or louvers open at alternate ends. The sap from the storage tanks is kept constantly flowing into the evaporator, the rate of flow regulated so that the sap is never over one inch or one and one-half inches deep in the pan. The shallow depth of sap means quicker boiling and results in the saving of a considerable amount of fuel. Even though the pan is level on the firebox, the sap is kept slowly flowing on its tortuous course from louver to louver, traveling a circuit of eight-four feet by the time it reaches the opposite end of the evaporator. Loss of water from the sap in the course of the boiling process has reduced its level at the syrup end, the difference in levels thus maintaining a constant flow of the liquid in the evaporator. Every hour, at full heat, about forty gallons of sap enters the upper end of the pan and in the course of that time is evaporated down to one gallon of syrup.

Working in the steam-clouded room and giving full and constant attention to the boiling sap is by no means an easy chore. Poking and refueling the fire; keeping a constant and even heat to maintain boiling and yet prevent scorching of the syrup; skimming the froth off the pan of boiling sap, drawing off and filtering the finished syrup—these are just a few of the chores that keep one ever busy in the syrup house.

How can one tell when maple syrup has reached the proper consistency and is ready to be drawn from the evaporator? Well, years ago it was largely a matter of guesswork. Today, however, Mr. Martin uses a sugar thermometer to determine the right stage for drawing off the finished maple syrup. When the syrup registers a temperature of 218 degrees Fahrenheit, the syrup is ready to be drawn off, for at this temperature a gallon of the syrup will weigh eleven pounds—the legal weight required by law in sell-

ing the syrup. If the syrup is heavier than eleven pounds per gallon it will crystallize in the container; if lighter, the weight is not legal and it will turn sour.

Mr. Martin says there are between eight and nine pounds of maple sugar in a gallon of maple syrup weighing eleven pounds. For tub sugar or soft sugar the thickened syrup should be drawn off at 238 degrees; for cake sugar 245 degrees. Mr. Martin used to make maple sugar but discontinued this phase of the sugarbush activity about twenty years ago.

When the syrup is ready to be run off, it is strained or filtered by running it through a heavy felt sac-like sugar filter so as to remove the lime or "sugar sand" as it is called, thus giving the finished syrup a clear amber color.

The Martins are systematic in keeping records from year-to-year of their tree tapping and syrup making, these records dating back to the beginning of their sixty years of tapping trees and making maple syrup. Four weeks is the average length of the sugar season. The earliest that trees were tapped was February 21; the latest was March 24. The earliest termination of the tapping season was April 7; the latest termination was April 20.

Hard work, long hours, and increased cost of producing maple syrup result in little profit to the producer, even at the present day price of maple syrup. In the face of thinning and decreasing sugarbushes, higher costs and diminishing profits with a resulting decrease in the number of syrup makers in the state, Everett and Sidney Martin continue the fine family tradition that to them has not only been profitable but filled with joys and thrills as well.

Getting ready to leave, it was only natural to take another sip of the sweet, aromatic, amber-colored syrup that has done so much to make the pancake and the waffle famous on the American breakfast table.

DELIVERING SAP TO SYRUP HOUSE





# Expedition Birthday

by ARMIN C. SCHMIDT, Chief Photographer

**M**USEUM expeditions in the field are no picnics—as the five of us were reminded on our recent trip into the Grand Canyon country for diorama material and motion pictures. Our museum group—Elmer Nelson and Joe Emielity, geologists; Irving Biehn and John Luedtke, artists; and myself—worked long hours every day, Saturdays and Sundays included, to bring back all we possibly could to compensate for the time and money expended. Now the hours of hard work are forgotten, but we will always remember one bright moment of fun.

It was the morning of my birthday anniversary and, after surreptitiously reading my greeting cards, received in the early mail, I felt quite safe. Surely nobody would remember the occasion to perpetrate some horse-play at the expense of my dignity, even though I had naively mentioned the date several months before, during the planning of the trip.

After lunch Nelson and I drove off to take pictures, leaving the others busy at their jobs in our headquarters at the National Park Service laboratory. We got back

just in time to join them for dinner at that world-famous inn on the rim of the canyon.

While we were waiting for dessert, a mischievous gleam in the eyes of my companions caused me to turn in the direction of their glances. There coming down the aisle, borne high by a beaming waitress, was a big birthday cake, ablaze with candles! It was set before me with a flourish and, to my complete consternation, everybody in the dining

hall joined in a lusty chorus of "Happy Birthday." When I was able to recover my wits, I blew out the candles and cut a generous serving for each of my friends. A sizeable portion of cake was left, which I asked the waitresses to share later.

What a shock I received with that first bite of cake! It was positively the most

horrible concoction I had ever tasted. This was certainly hitting a new low in practical jokes. Forcing a smile and trying hard to be a good sport, I glanced at the others. But they seemed to be even more surprised and baffled than I was. After some moments of complete mutual bewilderment, one of the ringleaders of the plot realized what had hap-

Nope!



The number of rattles does not indicate the age of a rattle snake.

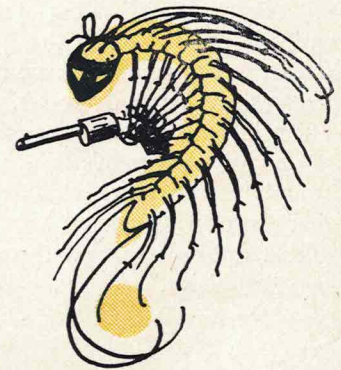
pened and, between howls of laughter, we pieced together the story of this unusual birthday cake.

It seems that someone had remembered the occasion after all, but too late to get a cake. Doing the best they could, and with all good intentions, the boys went to the typical western general store and made some purchases. They bought candles, sugar, and a dozen cupcakes and returned to the lab. There they squashed the cupcakes together into a circular mass, to resemble a cake, covered this with a frosting made of the sugar, and topped off the quite presentable result with the candles.

Then someone, undoubtedly an artist, decided that a finishing touch was necessary. So they cut a sheet of white paper to make a fancy doily to place beneath the cake. But the doily wouldn't lie flat, and there, it seems, is where they made their big mistake. They fastened the doily down to a piece of cardboard with a cement containing about 90 per cent of acetone (nail polish remover)! If you have never tasted a cake that's loaded with acetone fumes, a word of advice—DON'T.

I still wonder, since acetone is highly flammable, what might have happened if the candles had burned down a little farther. There might have been a really bang-up birthday party. But it was not until the following morning that we heard the real "kicker" of this story. The diningroom employees, whom we had forgotten to warn in the hysteria of the moment, couldn't eat that cake either—all except the cook, who thought it was "good—but maybe a little too much vanilla!"

## FRIEND OR FOE



**P**ROBING into dark corners of the basement or attic storage in search of some almost-forgotten item, most householders at one time or another have been startled by the sudden appearance of a swiftly moving "bug" that cuts across the path of light and then, ghost-like, vanishes, ordinarily as quickly as it had appeared. In describing this seeming apparition, the impression that usually persists most vividly is that the "thing" seemed to be made up entirely of legs—dozens of long, slender, greenish-yellow legs flowing along with a coordinated wave-like motion.



The above is the home owner's usual introduction to a creature called the house centipede, a form affiliated with a group known as hundred-legged-worms. This latter appellation must not be taken too literally for they never have exactly that number of appendages, nor are they true worms. Forerunner of the present day insect type, the centipede has a pair of legs for each of its long chain of body divisions. These are limited, however, to less than a score in the species that frequent the domiciles of man.

In common with their spider relatives, centipedes are equipped with poison jaws used primarily to kill their insect prey. Some of the tropical species are extremely dangerous to man. Although the house centipede when provoked may also, in self defense, bite a person, the toxin injected into the wound produces no serious effects, although it may cause painful irritation. The seriousness will vary according to the susceptibility of the individual bitten. Usually it is about that of a mosquito bite, and rarely exceeds in its effects that produced by a bee sting.

Native originally to the country south of the Mexican border, the house centipede has become exceedingly common in the Gulf states and has worked its way northward so that at present it is not at all uncommon in homes here in this area and even up into Canada. It is fond of dampness, darkness, and warmth, and any domestic situation that offers the above combination in the way of accommodations is likely to be frequented by this multi-limbed form.

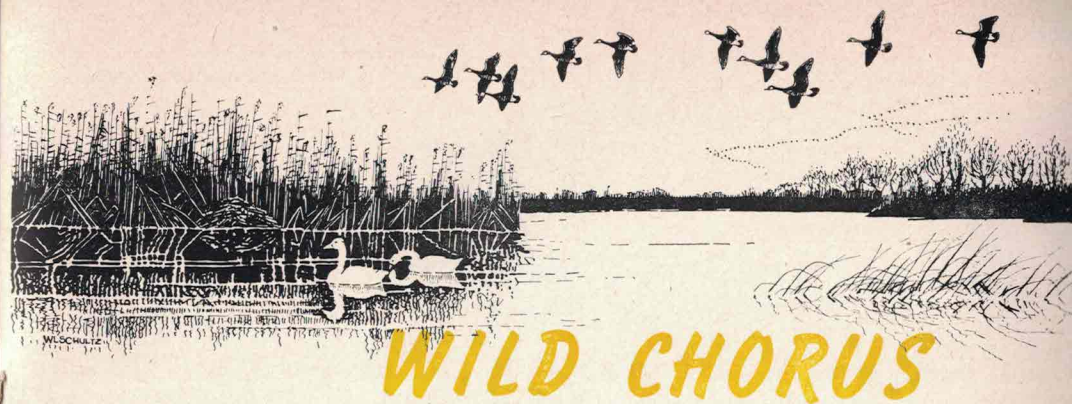
Since centipedes are predatory by nature, the domestic species must be considered as definitely beneficial to the economy of the household. Cockroaches, moths, bed bugs, and houseflies are some of the harmful and destructive insects that are favored items in the diet of the house centipede. We might propose a biological maxim: Other factors being equal, the centipede population in the home varies inversely with the population of destructive household insects; or putting it simply: as the former population increases, the latter decreases.

Consider then that these miniature perambulatory pest-control operators are operating on man's behalf, in the quiet of the night, night after night throughout the year, without compensation or consideration of any sort other than an occasional swat from a broom that transforms them into a tangled mass of snarled threads, because the mistress of the house finds them "repulsive."

KENNETH MacARTHUR,  
Assistant Curator of Invertebrate Zoology.

### COMING ATTRACTION

The National Wildlife Art Exhibition, the only comprehensive showing of its kind in North America, is scheduled for Milwaukee this spring as one of the attractions of the Milwaukee Sentinel Sports and Vacation Show, Milwaukee Arena and Auditorium, April 7-15. This exhibit is under the direction of the Museum; Owen Gromme, Art Chairman.



The marshlands in spring hold a strange fascination for the human invader to nature's greatest parade, the returning flight of waterfowl to their northern homelands. The magnitude of this powerful scheme can be notably felt by the humble human as he observes the vastness of a great marsh when the migrants have reached the full of their swing to the north. Such a marsh is Horicon, one of Wisconsin's finest refuges, where thousands of migratory birds rally awhile, then once more push northward.

Ducks of every description mill endlessly over the waving stands of flag. Many pair off and choose Horicon as their nesting grounds. Occasionally a lone black duck passes over, restlessly, intently searching. A group of canvasback rush by, rising slightly as they pass. They drop again and swing over Potatoe Lake to the south. From the lake comes the constant chortling of the whistling swan, a truly majestic bird. A flock of about two hundred have been on the lake now for a week, feeding and resting contentedly.

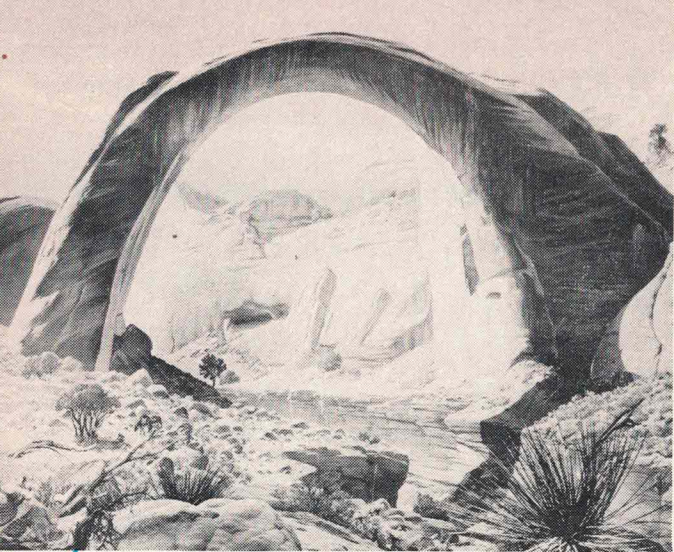
Trading back and forth are the thousands of Canada geese. In confusion, a large concentration of honkers rise from the marsh, soon to fall into the familiar patterns of long lines of undulating V's. The strange, weird note of the swan, and the lusty quacking of an old hen mallard mingle with the clamor of the geese in one wild chorus, giving true note to the music of the marshes.

Listening intently, the intruder hears a new note in the Wild Chorus, a truly wild call, different, challenging. The newcomers come into view, a long wavering line, flying low with tired faltering strokes. They have come a long way, and are eager to stop and rest at the great swamp beneath them. The newcomer, a grey-brown bird with bright red cap, has long, full wings and a graceful neck poised proudly forward, while his long slender legs trail behind in the flight pattern. It is the rare sandhill crane, whose numbers are fighting against the inroads of civilization upon his nesting grounds. The vast marshlands are vitally essential to the existence of this bird, and since much of the marsh and swampland has been drained, the bird has become a comparatively rare visitor.

With the Wild Chorus still echoing, the human intruder leaves. Another straggling pair of sandhills drop in with the main flock, and the intruder feels a certain satisfaction that his kind has helped a bit by preserving this marsh as a sanctuary for the wildfowl.

WILLIAM L. SCHULTZ,  
Assistant in Taxidermy.





M.P.M. DIORAMA OF NATURAL BRIDGE

by  
**ELMER R. NELSON**  
Curator of Geology

# Geology for Everyone

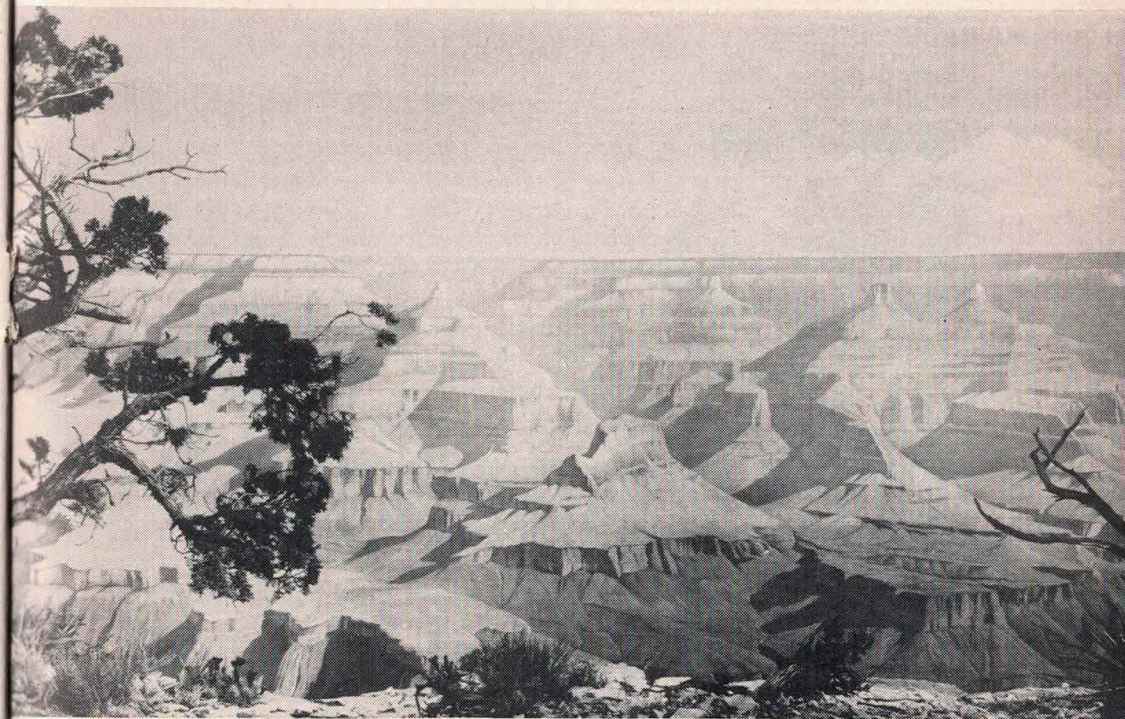
**A** VOICE AT the other end of the telephone said, "We're going out to California to visit my Aunt Emma—going to be gone a week, maybe two, and we want to go by Grand Canyon and Bonneville Dam and some more of those western places. Can you tell us how far they are apart, how we get to them, and what we're going to see?"

Well, we "sure enough can,"—now that we have a new exhibition unit designed to tell you more about this America of ours, all the way from Times Square to Hollywood Boulevard.

Of course we do have to confess to a few detours until some sunny day in the future will bring us more space and time and money. But don't let our omissions cast shadows on our commissions; come, see, and decide for yourself whether you're going to visit Aunt Emma in California via Bonneville Dam.

You will see an entirely new and modern exhibition area where we have temporary displays of unusual things. You may see samples of minerals that your wife dabs on her face, or dangles from her ears, or clasps around her neck; or we may have an array of exotically carved, semi-precious ornamental pieces on display. Variety and sparkle will be our new guide.

Our main attractions in the new area are the corridors devoted to earth sculpturing and to the unusual and beautiful life-like scenes of various



MILWAUKEE PUBLIC MUSEUM DIORAMA OF THE GRAND CANYON

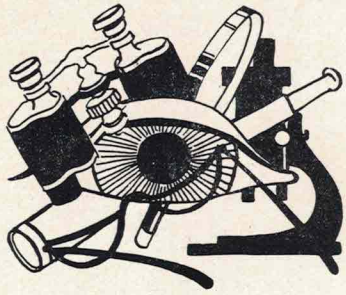
National Parks. These exhibits illustrate the underlying geologic forces from a broad point of view and show the distribution of our physiographic provinces. Then you will ascend a few steps to the corridor of National Parks where you can see replicas of typical scenes from Grand Canyon, Rainbow Bridge, Zion Canyon, Crater Lake, Yosemite, Yellowstone, and Mt. Rainier, each one in three dimensions with life sized foregrounds.

We should like to call your special attention to these National Park dioramas. Some will say that they have already seen these exhibits. Well, you probably did see them as they were but not as they are. Five of the dioramas have been rebuilt, and the other two renovated. The entire corridor from floor to ceiling has been redecorated to conform with the whole new unit. We are certain that the National Park dioramas will seem new to most visitors and will be well worth visiting.

We are indebted to the Santa Fe Railroad for the financial assistance which made the rebuilding of Grand Canyon and Rainbow Bridge dioramas possible, and to the Ford Motor Company for the loan, and eventually the gift, of the field car which we sorely needed for this and subsequent field operations. It was their faith in our dream and the incentive derived from that faith which have helped us carry the project to its present conclusion. There still remains much to be done, but that will be another story for another day.



# EYES OF THE PEOPLE



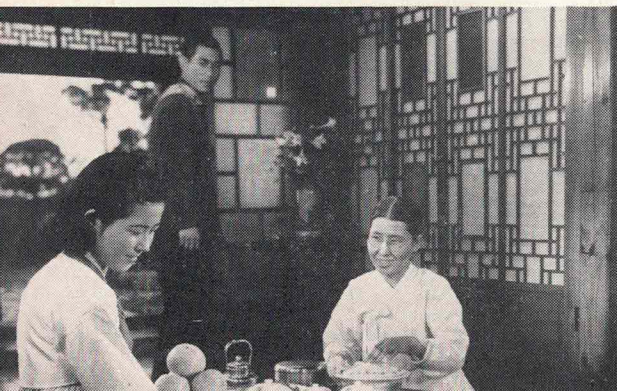
*In this column are contributions from people who, regardless of their vocational interests and occupations, have eyes and use them, have interests and cultivate them, have ideas and express them. Many eyes cover more territory than a single pair, and many people other than specialists contemplate and appreciate the phenomena of nature at work. Here we record glimpses of the earth and man on the earth as seen through the eyes of the people.*

## OBSERVATIONS OF A WISCONSIN FARMER IN KOREA

A United States citizen entering the land of Korea has many things to look forward to. The country is one of contrasts and extremes. On the one hand he will find rolling hills and mountains where there are few passable roads, and on the other, there are many rivers and swamps. There is some tillable land, but the people are handicapped by not having modern equipment with which to work. The weather, too, follows the extreme pattern and there are weeks of torrential rains followed by dry, arid spells. Near the southern capital, Seoul, it may get as cold as ten degrees above zero, but on the whole it is rather warm.

The Korean people are smaller than those of this country and have yellowish skins and shiny black hair. The men wear white, baggy trousers with long, white topcoats over them. They wear high, black straw hats with netting at the top for ventilation. The women wear highly colored kimonos or robes fastened about the waist with sashes of contrasting color. They wear sandals or moccasins which are easily slipped off on entering their homes. The women wear their hair long and tightly drawn back into a bun at the back of the head. Most of the people transport their bundles on their backs, using a sort of hooked yoke; some, however, prefer to carry things on their heads. The women carry their babies on their backs in the folds of their kimonos.

SERVING A MEAL IN A KOREAN HOME



Nearly every family in the village has a small rice field and this grain, together with tea, makes up a large part of their diet. The farming methods are very primitive and most of the work is done by hand or with the aid of slow-moving oxen and heavy, wooden plows. After the rice is harvested the women do their

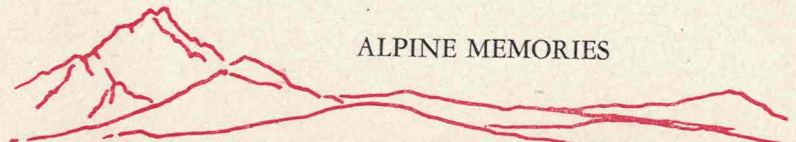
own grinding, using a hollowed-out tree trunk as the mortar and a crude, long-handled mallet as the pestle. Most families own chickens and goats which are allowed to run in the house at will.

The houses of the farmers and poor people are made of wood frames with grass roofs; some have glass windows but many of the panels are broken out. The richer people do have nice homes with tile roofs and concrete floors, and enjoy keeping up their appearance. Every house has a room in which to entertain. There is no need for a garage as few of the natives have autos or motorcycles, and the vast majority do all their traveling on foot.

We were stationed near Seoul, and while there met several fine families. They invited us into their homes and were most hospitable and cordial, as are all Koreans. In fact they are grossly insulted if one refuses an invitation to their homes. We, too, had to remove our heavy army shoes at the door, and then were seated on little mats on the floor. The food was placed on small tables in front of us and we enjoyed several meals this way.

Some of the members of these families could speak broken English, and it was a privilege to sit down and enjoy their hospitality and discuss with them matters of common interest.

MERL VOLLMER,  
Wales, Wisconsin.



## ALPINE MEMORIES

I grew up in the small village of Mompont, which is nestled in the heart of the Graian Alps in the province of Piedmont. My ancestors had lived there for hundreds of years.

When I was six years of age, my parents began to take me with them on trips out into the country. Of special interest were the trips during the summer, up into the mountains to cut hay. My parents owned about eighty acres of hay land situated about a two-hour walk from our village. The walk took us up a very steep mountain path. The hay field, just above timber line, was almost set on edge as it lay along the mountain slope. Beeches and mountain pines came up to the lower edge of our land. Numerous rocks of all sizes studded the field, and the grass grew in clumps and tufts around these boulders. This made it necessary to cut the grass with scythe and sickle. The hay was usually cut during July. Sometimes we went back to the village at night, but often we spent the night in a mountain shelter built of stones.

After the hay was cut, it was taken into a stone barn. Before it was to be taken down to our village home, it had to be tied into bundles so it could be carried on our backs. For the grownups the bundles would weigh around 125 pounds; for the children, somewhat less. By the time I was 10 years old I was carrying a bundle of hay that weighed about 60 pounds. Wood for use in our village home had to be carried in the same manner.

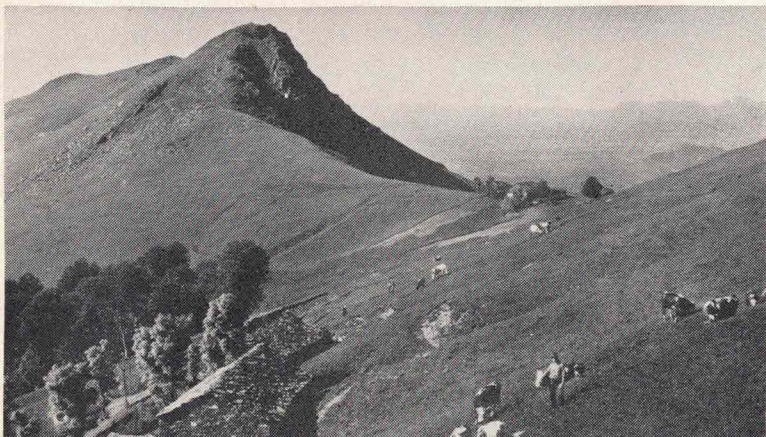


It was indeed a pleasure for me to spend this time in the mountains. Young as I was, I did not realize the dangers that surrounded me. The scenery was most beautiful. From our mountain shelter we could see waterfalls and a number of mountain valleys. The natural scenery was superb. When the weather was nice and clear, we could see the city of Turin in the far, far distance.

While in our mountain field cutting hay, I saw many mountain animals. One of the most common was the marmot, a small mammal closely related to the woodchuck of Wisconsin. The marmots lived in burrows in the crevices between the rocks. When on the alert, they would stand erect on their hind feet, like soldiers. I can still hear their shrill whistles. Every summer we would see a number of chamois. They were very quick and agile on the rocks. In the beechwoods below the timber line, we saw numerous squirrels. We would also find grass snakes, and around the rocks we would frequently find the viper, a venomous snake. In our field we found nests of the partridge, but I think that the birds which made the greatest impression on me were the eagles. Frequently they had a wing spread of over six feet. At first I was afraid of them and would try to hide. Later on we were glad to see them. Once, I remember, we killed a large viper and put it on a stick to attract the eagles. An eagle soon came and took it away for food.

When a young boy I heard my parents talk of a mountain flower called "*stella alpina*." I was curious and asked for information about this flower. My parents told me that it grew in rock crevices, especially on the steep, rocky precipices. It bloomed in August, and grew in very dangerous locations. The flower was beautiful, appearing to have been made of cream-colored velvet, with a yellowish center. When I became old enough to make trips into the mountains, I saw these flowers on many occasions. It grew on the mountains that surrounded the Soana, Locana, and Bardonechia valleys, and also on the other mountains that form the frontier between Italy, Switzerland, and France. In Switzerland, Germany, and America it is known as Edelweiss. In France it is also known as "*belle etoile*" or "*etoile d'argent*." In Switzerland it has been protected for many years. In most

THE VILLAGE OF SALE ON THE SLOPES OF CASTELNUOVA NIGRA



places in the Alps the "*stella alpina*" of my boyhood memories is very scarce.

In the winter time our mountain place was deserted. The mountain paths were covered with more than six feet of snow, and it was impossible for anyone to get through.

Yes, life was rough in my boyhood home, hardships were a part of our daily life. However, as I look back to the scenes of my youth, the interesting experiences which I had, and the indescribable beauty of the rugged mountain scenery more than compensated for the hardships.

JOHN L. ALBERTANO

*If you wish to contribute to this column, send your copy to Albert M. Fuller, Curator of Botany, Milwaukee Public Museum, Milwaukee, Wis.*

## An Aquarium Gem



LOOK AT that one, the one with the red tail and shining blue sides. That's the prettiest one in the tank." The tank referred to is an aquarium; the fish is *Hyphessobrycon innesi*, more commonly called the neon tetra.

This exotic fish has captured the enthusiasm of aquarists the world over since its first introduction to aquarium societies in 1936. Though quite small, usually an inch and a quarter in length, the neon tetra's iridescent blue-green sides and flashing red tail has made it one of the most popular aquarium fishes.

M. Rabaut, a French collector, heard of the species through South American Indians and subsequently had porters carry loaded cans for long distances through the Brazilian jungles. The fish is presently found around the Brazilian-Peruvian Amazon border.

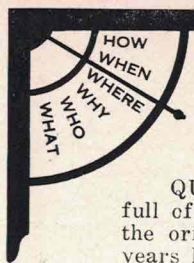
A peculiarity of the red coloration on this fish is that when a dead specimen is placed upon a sheet of paper, it leaves a stain, showing the color to be a pigment. Most fishes when excited become faded, but the neon tetra, due to the fact that its cardinal shade is caused by a pigment, retains the brilliant hue at all times. This is a definite advantage for show purposes, since the neon tetra's only claim to beauty is its coloration.

The second importation of 10,000 "neons" was sold to a New York wholesaler, and quickly exhausted by dealers. Many importations have followed, since the breeding of the "neon" has been found to be almost impossible. Of the many experts who have tried to propagate this fish, both for pleasure and for profit, only a few have met with success. However, in Hamburg, Germany, it is a simple task to spawn the "neon." Why should this one city in Germany be the only one with the correct water requirements to breed this fish?

The person who finds the answers to these questions will find a bonanza awaiting him in marketing the young of the neon tetra.

JAMES C. HART





## QUERY QUADRANT

Conducted by the Museum Staff

QUESTIONS? When you were six years of age you were so full of questions that your parents were quite sure that they had the original walking question mark. We hope that even if your years have reached the traditional "three score and ten," that you are still interested in asking questions. This department depends on you. You ask the questions; we will do our best to answer them. You may have had unanswered questions which have been haunting you for years, or you may have some brand new ones.

*I am a dog fancier and amateur botanist by avocation and have often wished I could have a photographic record of some of the fine specimens I see. I wonder if the third-dimensional cameras advertised currently would be practical for that purpose. Has your photographic department had any success with stereo photography of animals and flowers?*

Harvey W. Zahn,

Black and white Stereo, or three dimension photographs, have been made by museum photographers for many years, but since the advent of cameras using natural color film this technique in photography has proved especially valuable for work such as yours and ours. We have been using a Stereo Realist camera, which we are proud to say is Milwaukee-made, for about a year with excellent results. Our modelers, who, like you, are vitally interested in form, texture and color are very enthusiastic about this form of photography. We believe Stereo will fill your needs perfectly.

Armin C. Schmidt, Chief Photographer.

*I am enclosing samples of an insect which I have noticed around my living room rug the last few weeks. I was afraid that it might be injurious to the rug but my husband says he believes it is a plant insect and that it has wandered into the living room from the fernery in the sun parlor.*

*Will you please inform me as to its nature and eradication, and whether or not it will destroy rugs or upholstered furniture.*

Mrs. Ray Caldwell.

The insects submitted for identification are known as Buprestid Beetles or Metallic Wood Borers. The grubs of this insect feed on *unseasoned* wood. Their presence indoors may be considered as accidental. They possibly came in with firewood, such as logs for the fireplace. The unusual warmth indoors caused them to emerge somewhat earlier than they normally would outdoors.

These insects are not capable of harming the dry, seasoned woodwork of the house. They do not feed on carpets, clothing, or other fabrics. They do not destroy food-stuffs. The only control necessary is to kill the adult beetles when you see them or to take the firewood outdoors until the beetles have finished emerging.

Kenneth MacArthur, Division of Lower Zoology.