

# HIGH ADVENTURE

*A ROYAL RANGERS MAGAZINE FOR BOYS/SUMMER 1986*





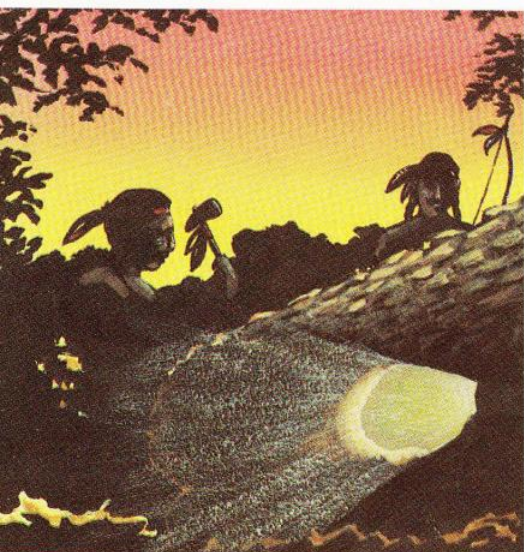
# HIGH

## ADVENTURE

### SUMMER

#### CONTENTS

#### PAGE



<b>WILDFIRE</b>	Larry Bohall	<b>3</b>
—two boys are caught in the middle of an engulfing prairie fire		
<b>POND PUZZLE</b>	Richard Parker	<b>6</b>
—two pondering puzzles in one		
<b>BUTTON-SIZED WONDER</b>	Muriel Larson	<b>7</b>
—it may serve as an engineer, a street cleaner, a nurse, etc.		
<b>FOX FIRE</b>		<b>8</b>
<b>STRANGE HUNTERS</b>	O. J. Robertson	<b>10</b>
—until now, no one's ever hunted in Harkman's Woods		
<b>ANIMAL TRIVIA</b>	H. V. Prochnow	<b>12</b>
—true or false: a trout can swim 5 m.p.h.		
<b>PLANT NICKNAMES</b>	O. J. Robertson	<b>13</b>
—match the nickname plant with its state		
<b>FOREST FIRES DANGER</b>	S. Slahor, Ph.D.	<b>13</b>
—learn how to prevent a small fire from becoming a big one		


**COVER PHOTO:** The 1985 Regional Royal Rangers of the year help build the Johnnie Barnes Lodge at the National Royal Rangers Training Center near Eagle Rock, Missouri.

#### HIGH ADVENTURE STAFF:

Senior Editor: Johnnie Barnes, Copy Editor: Doug Tarpley, Layout Editor: Dave Barnes

**HIGH ADVENTURE**—Volume 16, Number 1 ISSN (0190-3802) published quarterly by Royal Rangers, 1445 Boonville Avenue, Springfield, MO 65802. Subscription rates: single subscription \$1.75 a year; bundle (minimum of five subscriptions, all mailed to one address) \$1.50 a year. Copyrighted 1986 General Council of the Assemblies of God, Inc., Gospel Publishing House. Printed in USA. Second-class postage paid at Springfield, Mo., and at additional offices. POSTMASTER: Send address changes to High Adventure, 1445 Boonville, Springfield, MO 65802.





Josh gave the rope one last tug, then grabbed the bucket and swung it over the edge of the well. He splashed some of the cold water on his face and neck. It was a hot summer day out there on the plain—the kind of day that made you glad you had a cool drink of water.

It hadn't rained for nearly three weeks now, and the blazing Kansas sun had turned everything to a washed-out grey and brown. A hot breeze was blowing in from the west, and the long, dry prairie grass bowed down before it. If rain didn't come soon, the crops would never make it. The corn was already gone, and Pa was worried about the wheat.

Josh looked out at the hard, dry ground around him. Heat waves were rising in the distance, and the sky was clear and blue—not a single spot of white anywhere. There'd be no rain today, that was sure.

"You gonna stand there gawkin' all day?" Shawn, Josh's younger brother, called from the barn. Red-headed and stocky, Shawn looked bigger than his 9 years.

"Don't you worry 'bout what I'm doing," Josh hollared, pouring the water into the carrying bucket at his feet. "You just get that barn cleaned out like Pa said!"

Josh hefted the water bucket and headed toward the soddy. They'd been living in the cool, sod-block house for two years now. Josh liked the dark coolness of the soddy, but he missed the room of their old wooden home in St. Louis. In fact, he missed St. Louis. Seemed like it was ages ago that his father and mother had announced that they were heading west.

"The government's giving away the land," Pa had said. "And your mother and I want a place of our own—a place to put down roots."

Josh thought they already had plenty of roots in St. Louis, but his parents were determined; so, they had packed everything, said good-bye to friends, and headed west. West to Kansas, and endless prairies and endless heat.

Pa had wood hauled in last year for the barn and stables, and now Josh's folks had gone to town to get the wood for the house. And while Josh and Shawn didn't like being left behind to tend chores and livestock, Josh was excited about the prospect of

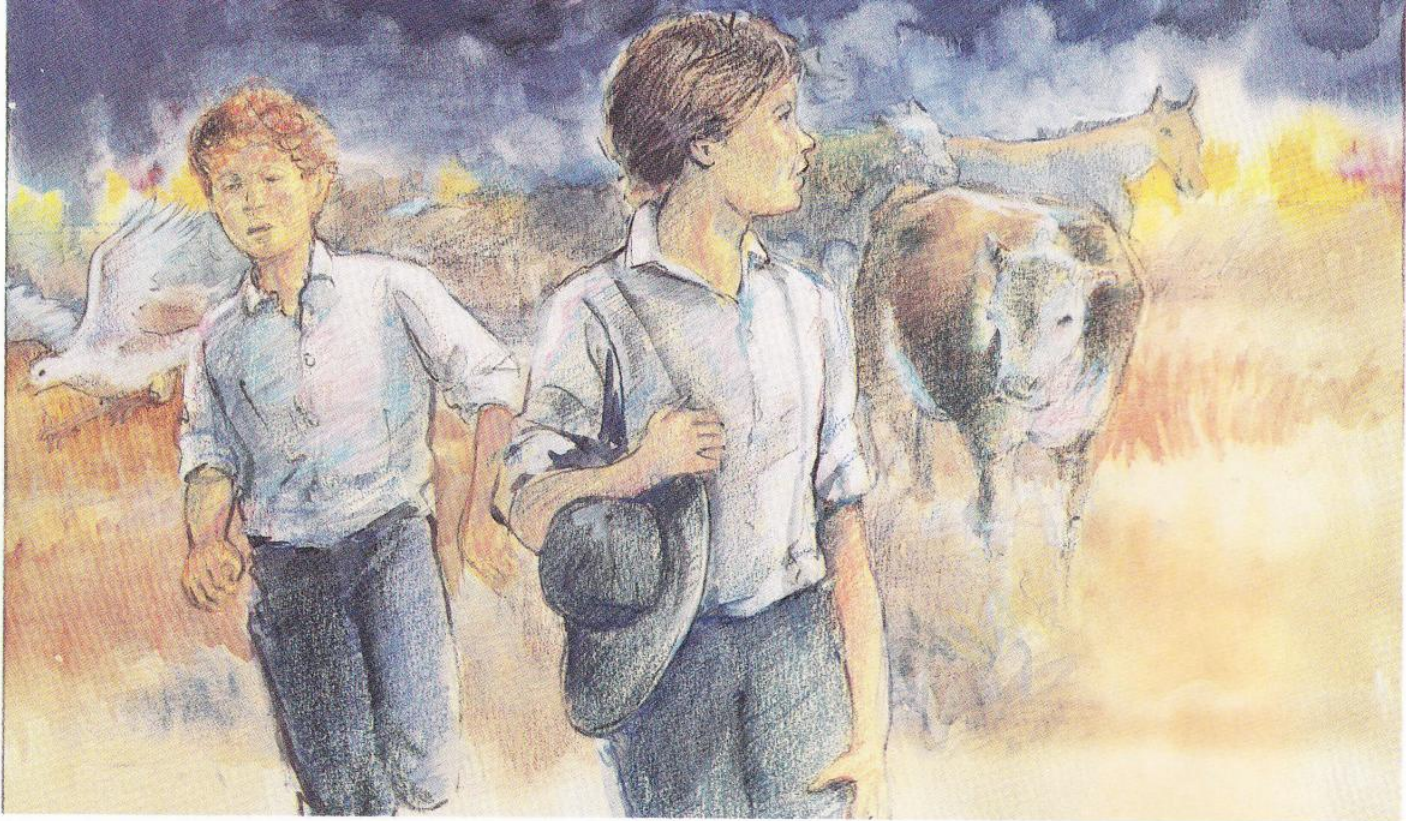
CONTINUED ON NEXT PAGE ►



# WILDFIRE

BY LARRY BOHALL





living in a real house again.

Swatting at a fly that buzzed around his head, Josh stepped into the one-room, mud-walled soddy. There hadn't been any wood to build a house with when they'd arrived, so they had used what they did have—big chunks of sod, prairie grass and all. It really wasn't a bad house. It was cool in the summer and warm in the winter, but it did have dirt walls, floor, and roof.

Yes, Josh decided, a wood house would be real nice.

Oh well," he sighed, dumping the water into the basin. "I better stop daydreaming and get after these dishes. Pa and Ma'll be back in the morning with the wood for the new house. Got to have all the chores caught up for the house raisin'."

Ma had been planning the house raising for weeks. She'd invited everybody for miles around—even the Wilkses. Josh didn't really mind Tom Wilks, but he didn't care much for Becky, Tom's sister. At 12, Becky was a year younger than Josh, but not much fun to be with. She'd taken to wearing dresses and stuff, and didn't seem much interested in fishing or rassling or swimming anymore. She just liked "looking pretty" and talking about love and marriage.

Still, Becky had blacked his eye last summer; and, try as hard as he could, Josh hadn't been able to beat her in the church picnic race back in May. Best he'd done was come in a poor second.

All things considered, Josh decided he'd be just as happy if Becky Wilks came down with the measles, or something, when time came for the raising.

Josh laughed when he thought about Becky's face all covered with little red spots.

He'd just finished piling up the dishes in the basin when he heard Shawn yelling out from the barn. "Hey, Josh! Josh! Come look at this!"

Grabbing up a towel, Josh wiped his hands disgustedly and stormed out into the yard.

"Wow, Shawn!," he yelled, squinting. "What is it? If you don't get that barn cleaned out, Pa'll tan both our hides!"

Shawn was leaning out the loft door, watching something off to the west. "C'mon up here, Josh," he shouted. "Somethin's coming!" There was a sound in Shawn's voice that told Josh he was serious. "I'll be right up," Josh called, then sprinted for the ladder in the barn.

It only took a few seconds for Josh to join Shawn in the loft. Panting in the heavy, dust-filled air, Josh scanned the distance

in the direction Shawn was pointing.

"I don't see . . ." Josh started. "Wait—what's that?"

Off in the horizon, Josh could just make out what looked like a thin black line of clouds.

"D'ya think it's rain?" Shawn asked. His voice had an excited tone to it.

As Josh watched, the black line thickened, spreading to the north. "I don't know. I don't think so, anyway. I've never seen anything like it."

"Me either," Shawn said, shading his eyes for another look. "If it's rain, it's the weirdest looking clouds I've ever seen."

As they watched, the horizon beneath the spreading cloud began to glow with a faint, redish tinge. The once thin black line had spread, filling the lower third of the sky. Josh suddenly knew what it was, even though he'd never seen it before.

"Shawn," he said, quietly. "That's not rain."

"It's not? What is it?"

"Fire. Wildfire."

"Yes," Josh said. "And it's coming our way fast."

Shawn's eyes grew big. "What'll we do, Josh?"

He was scared, Josh knew it. His freckled face had gone all white, and his eyes had a panicked look. Josh was scared too, but they'd have to do something quickly. If they didn't hurry, they'd be trapped.

"We'll be okay," Josh said, grabbing Shawn's shoulders. "Run downstairs and open the stalls. You kick the horses and chickens loose, and I'll run and open the corral for the cattle. It's not far to the creek—we'll go there."

Shawn didn't move. He had a dazed look on his face. "Wildfire," he said, dully.

"Shawn!" Josh shouted, shaking his brother. "Let's go! You open the stalls and I'll get the cows. Run!"

Blinking a couple of times, Shawn swallowed, then nodded. "Right," he said, then headed for the ladder and the stalls below.

Josh swung out of the loft window and landed with a thud on the hot, dusty ground below. Picking himself up, he raced around the barn to the corral. Inside, the nervous cattle had jammed up against the wooden gate, and Josh was barely able to get the gate open. The baying cows shoved through the gate, cracking Josh in the leg.

"Ow!" he cried as the gate swept him aside.

The cattle raced around the barn and headed for the creek. Josh pulled himself up on the gate, then tried walking. His left



knee was tender. It hurt to put his weight on it.

"Let's go, Josh!" Shawn yelled as he ran around the corner of the barn. "I got the horses and chickens out. Let's go!"

The sky was almost black now, and the blowing wind carried the smell of the fire to them. All sorts of animals and birds were fleeing the devouring flames. Three or four coyotes burst out of the grass, running past some rabbits and prairie chickens. Overhead, Josh heard the cry of a hawk.

"I'm hurt, Shawn," Josh gasped. "Go on without me. I'll make out okay."

"Don't be stupid," Shawn said, pulling Josh's arm up over his shoulder. "You'll never make it without help."

They set off for the creek, Shawn tugging and half-carrying Josh, who was limping badly—dragging his left leg. It was a little less than a half-mile to the creek, but it looked further. Grey whiffs of smoke were crawling along the ground, and they could hear the faint rumble of the approaching fire.

Suddenly, the wind began to shift direction, moving from the west to the north. Their soddy was just southwest of the creek, and it was now a race to the water. Doubling their efforts, Josh and Shawn pushed themselves hard to make the creek. Without warning, a horse crashed out of the grass directly in front of them, nearly knocking the boys over.

It was heading away from the creek.

They weren't going to make it. They could see the red glow of the fire in front of them now. The shifting wind had cut them off from the safety of the water.

"What'll we do now?" Shawn cried, gasping for breath.

The haze from the fire was creeping over them like a deep fog. Josh's knee was throbbing, and the smoke was stinging his eyes. They had to act quickly, or they'd be completely surrounded by the flames. There was just one chance—if only they could make it.

"Go back," Josh said, coughing from the black smoke. "Got to get back to the house!"

In town, Josh's father had just pulled the wagon up to the dock when the church bell started ringing. The Wilks' wagon came racing up the street, bouncing and jolting, the horses in a lather.

"Wildfire!" Mr. Wilks shouted as his wagon ran past. "North of town!"

"Josh's mother turned to her husband. "Oh, John," she said, her face white. "The boys!"

Josh's father jumped from the buckboard and cut loose one of the two horses that had pulled the wagon. "Bring the wagon," he shouted to his wife. "I'll go ahead."

She took up the reins on the remaining horse, kicked the brake loose and pointed the wagon after the fast disappearing figure of her husband. Coaxing the horse for all the speed it could give, Josh's mother prayed.

"Please, Lord," she cried. "Please!"

The engulfing fire had turned the yellow and brown prairie to a crunchy, black wasteland. As she headed up the lane, Josh's mother was greeted by the smoldering remains of the barn, corral, and soddy. The air was still and quiet—the feeling of death hung over the place. Here and there, little pockets of grass and weeds still smoldered. The roof of the soddy collapsed as the wagon pulled up.

Dropping the reins, Josh's mother clamored up on the wagon seat and surveyed the countryside. There was nothing to be seen but black, charred remains.

The boys' father rode up from the creek. "The fire doubled back on itself," he said. "Most of the livestock made it to the water, although we did lose one of the new calves."

"And the boys?"

He looked down. "They weren't there."

"Oh, John," his wife said, slumping down onto the wagon seat.

"Now, dear," he said quietly. "It's going to be okay. They're smart boys, and God'll look after them. They're around somewhere, and they're fine."

He swung down from the horse and surveyed the ruined homestead. "Have you checked the soddy?"

**They could see the red glow of the fire in front of them now. The shifting wind had cut them off from the safety of the water.**

She shook her head.

"All right," he said, turning and heading for the house. "I'll do it. You stay here."

He crunched off through the burnt grass, making his way to the smoldering soddy. Passing the well, the boys' father heard an odd sound. He stopped, scratched his head and looked around. It sounded like someone singing "A Mighty Fortress Is Our God." Straining, he listened. No doubt about it, those were his boys singing. He could recognize Shawn's off-tune croak anywhere.

"Mary Ellen!" he yelled, his voice breaking with excitement. "Do you hear that! They're still alive!"

He started turning in a circle, anxiously surveying the surrounding terrain for his boys. "Joshua! Shawn!" he shouted. "Where are you?"

"Here!" came Josh's faint reply. "Down here! In the well!"

Their mother came running with a rope. "Are you hurt?" Josh's father yelled down the well.

"I banged up my leg a little," Josh yelled back. "But we're okay."

Tears of joy streamed down Mary Ellen's face. "Thank you, Lord," she said. "Thank you."

"Yep," Josh said, adjusting the pillow under the cast on his leg. Doc Mitchell had said the leg wasn't broken, but he'd put a cast on just to make sure. "It looked pretty bleak for a while there. The wind had us cut off, and me and Shawn didn't know what to do. Then, out of nowhere, I thought of the well. Smoke goes up, so I knew if we could just get down in the well in time, we'd be okay."

"My," Becky Wilks said, her eyes round as saucers. "You're so brave. And so smart."

"And such a braggart," Shawn yelled as he ran up with Tom, Becky's brother. The Wilkses and other families were just finishing up the house raising. "Mom wants to know if you need anything."

Josh looked at Becky, then at their brand-new wood home. "No," he said. "Everything's fine."

Shawn punched Tom in the ribs. "That's what we told her, but she said to ask anyway."

The stocky redhead smiled at his older brother, then turned and started to run off with Tom. Josh called him back.

"Thanks, Shawn."

Leaning back, Josh looked up at the stars just appearing in the eastern sky. The sun was sinking below the horizon to the west, and Becky was saying something about wanting a house just like Josh's one day. Josh didn't hear what she was saying. He was too busy thanking Someone else. ★



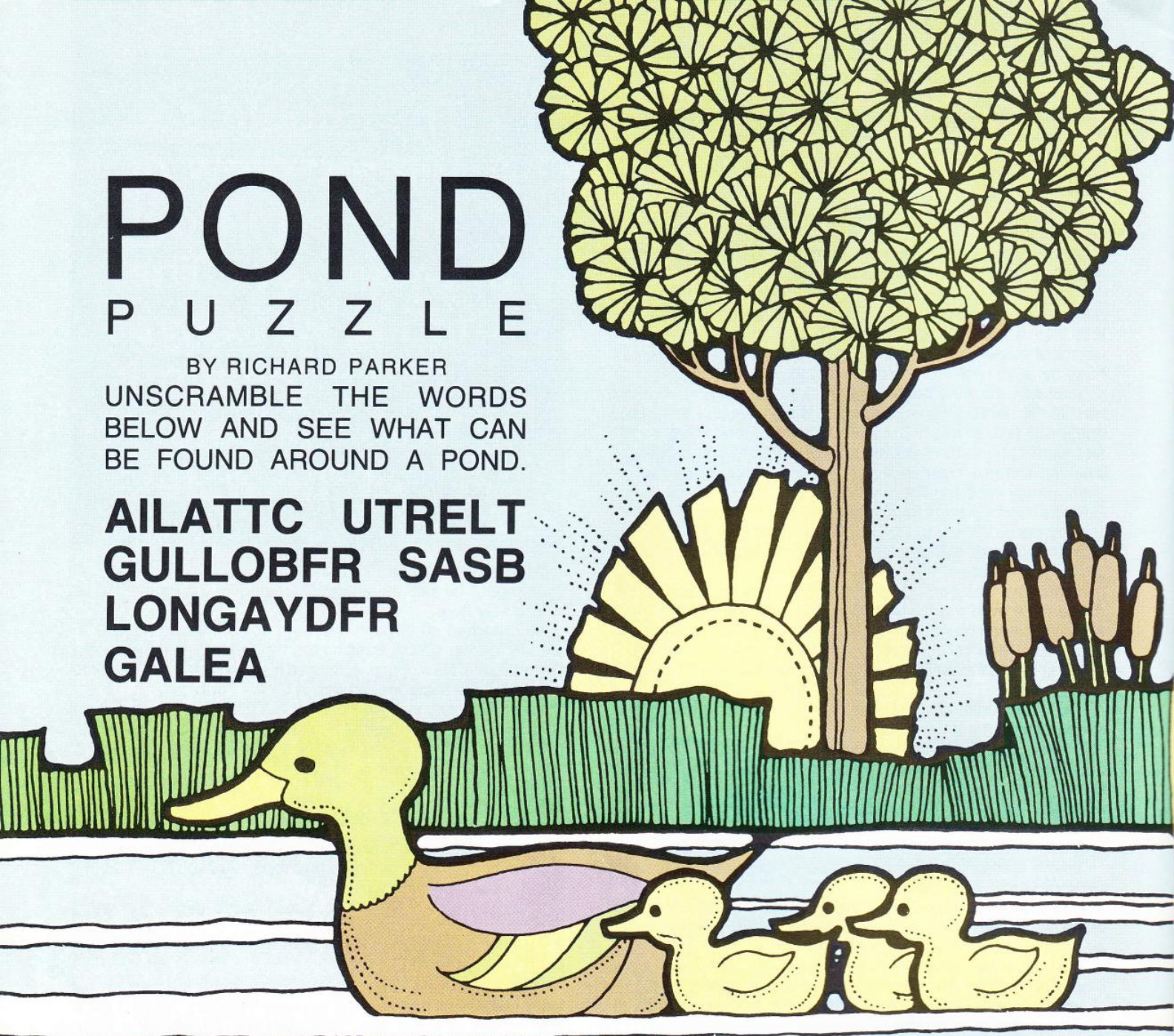
# POND

## P U Z Z L E

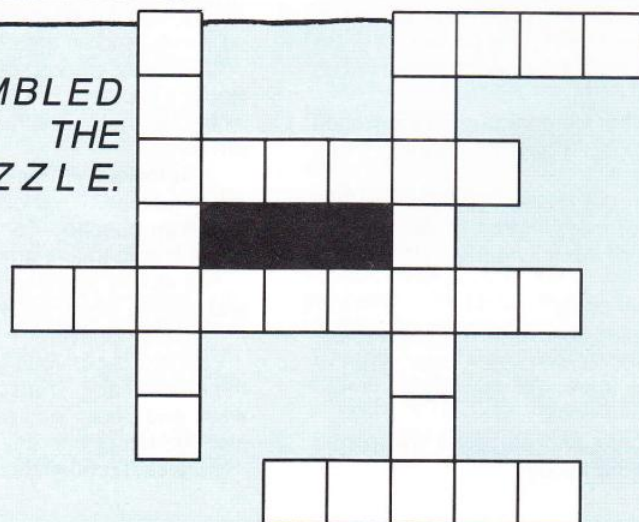
BY RICHARD PARKER

UNSCRAMBLE THE WORDS  
BELOW AND SEE WHAT CAN  
BE FOUND AROUND A POND.

**AILATTC UTRELT**  
**GULLOBFR SASB**  
**LONGAYDFR**  
**GALEA**



TAKE THE UNSCRAMBLLED  
WORDS AND WORK THE  
CROSSWORD PUZZLE.



ANSWERS

ON PAGE 15 ►

HIGH ADVENTURE

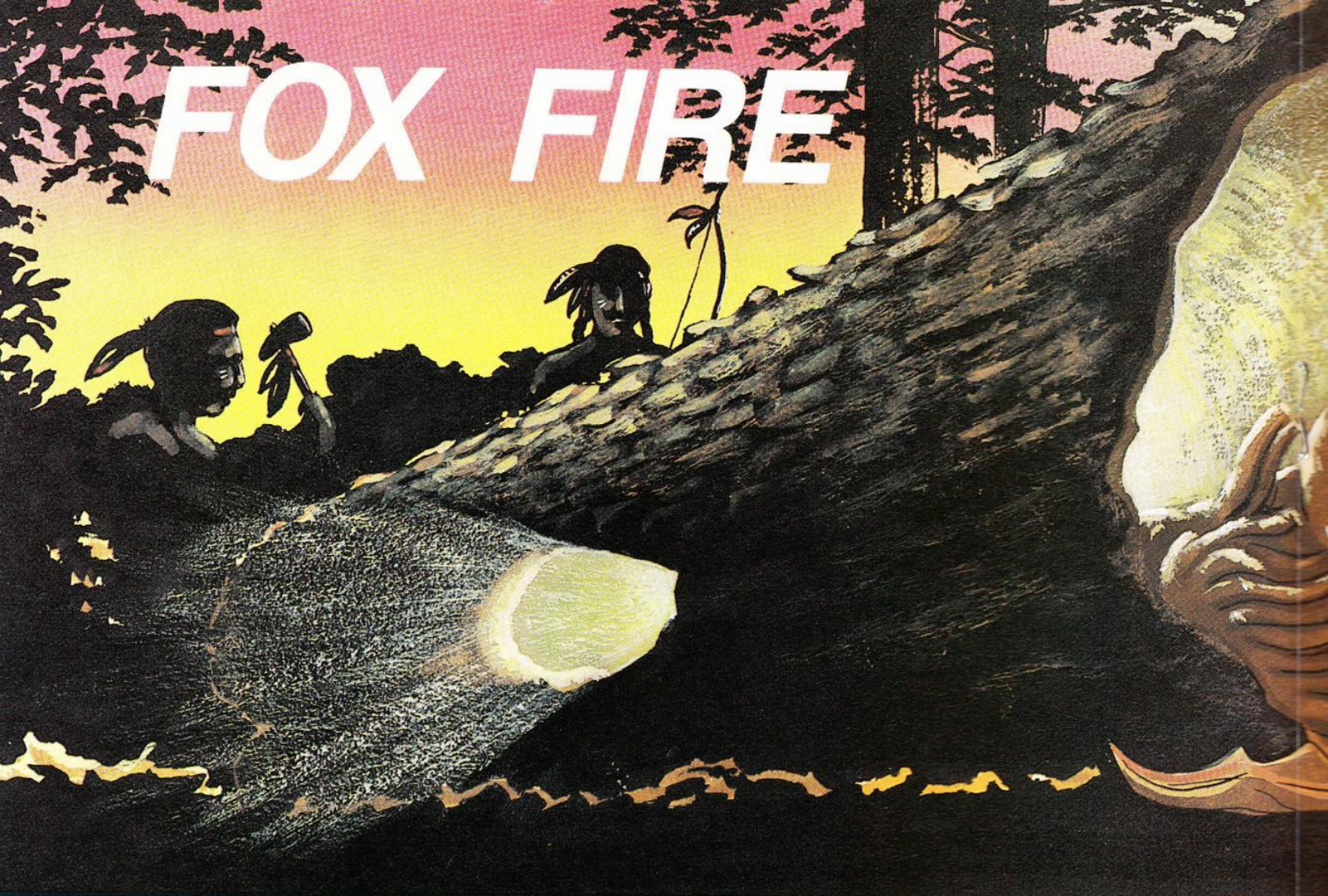


**BUTTON-SIZED  
WONDER**

**BZZZZZZZZZZZZZZZZZZ**



# FOX FIRE



A twig snapped under David's foot as he and Doug hiked through the woods. The boys and their family camped often in the national parks during the summer. They liked hiking into the woods.

"This pack is really getting heavy," sighed Doug. "How much farther to our camping spot?"

"Should be up past that huge cedar tree," replied David. "It looks like there's a small clearing just on the other side. That's where Dad and Seth said they'd meet us."

Doug adjusted his pack. "Well, I hope you're right. I'm starved. I wonder what Dad's planning for supper?"

"I don't know," said David. "But he's probably already gotten it fixed. With his long legs, it's hard to keep up with him."

"I know," laughed Doug. "Poor Mom. She almost has to run to stay up with him on the trail."

The boys passed the huge cedar tree.

"Hey! It's about time you got here," said Dad. "What took you so long?"

"Doug's pack got heavier each step he took," said David. "So we had to stop a lot. I think maybe next trip he'll leave a few of those can't-get-along-without items at home."

"That's probably true," said Dad. "But right now we need to gather some fire-

wood. It'll be dark soon. A warm campfire will feel good once the sun disappears behind the mountain."

"Hey, Seth," said David, "I passed a felled tree near the side of the trail just a little ways back. It'll make some great kindling. Let's go get some."

David and Seth loaded their arms with wood and carried it back to camp. Seth grabbed a piece of the rotting wood and began breaking it into small pieces of kindling. Suddenly he stopped.

"Dad, look!" he shouted. "This wood is doing weird things!"

"I don't see anything weird," said Doug peering over his shoulder.

"But don't you see it?" said Seth. "It looks like it's glowing."

"Let me see," said David.

They gathered around the piece of wood that Seth was holding.

"Oh, I see it now," said Doug. "What makes it do that? Is it full of electricity?"

"No," said Dad. "That's fox fire."

"Fox fire," exclaimed Seth. "What's that?"

"Its real name is *Armillaria mellea*. It's a fungus that grows on rotting wood. In the right kind of light, usually a dim light, it produces a luminous effect. Or as Seth described it, it makes the wood look like it's glowing."

"You know," continued Dad, "Fox fire

once helped save a man's life."

"How did it do that?" asked David.

"Well, it happened a long time ago," said Dad.

"Late one evening, Kit Carson, the famous Kentucky explorer, was heading back to his camp several miles downstream. He'd been setting beaver traps along the upper Timpas River. He was tired from walking, and his moccasined feet ached. To add to this discomfort, he'd seen Indian signs along the way: a covered campfire in the hills and a few tracks down by the river's edge.

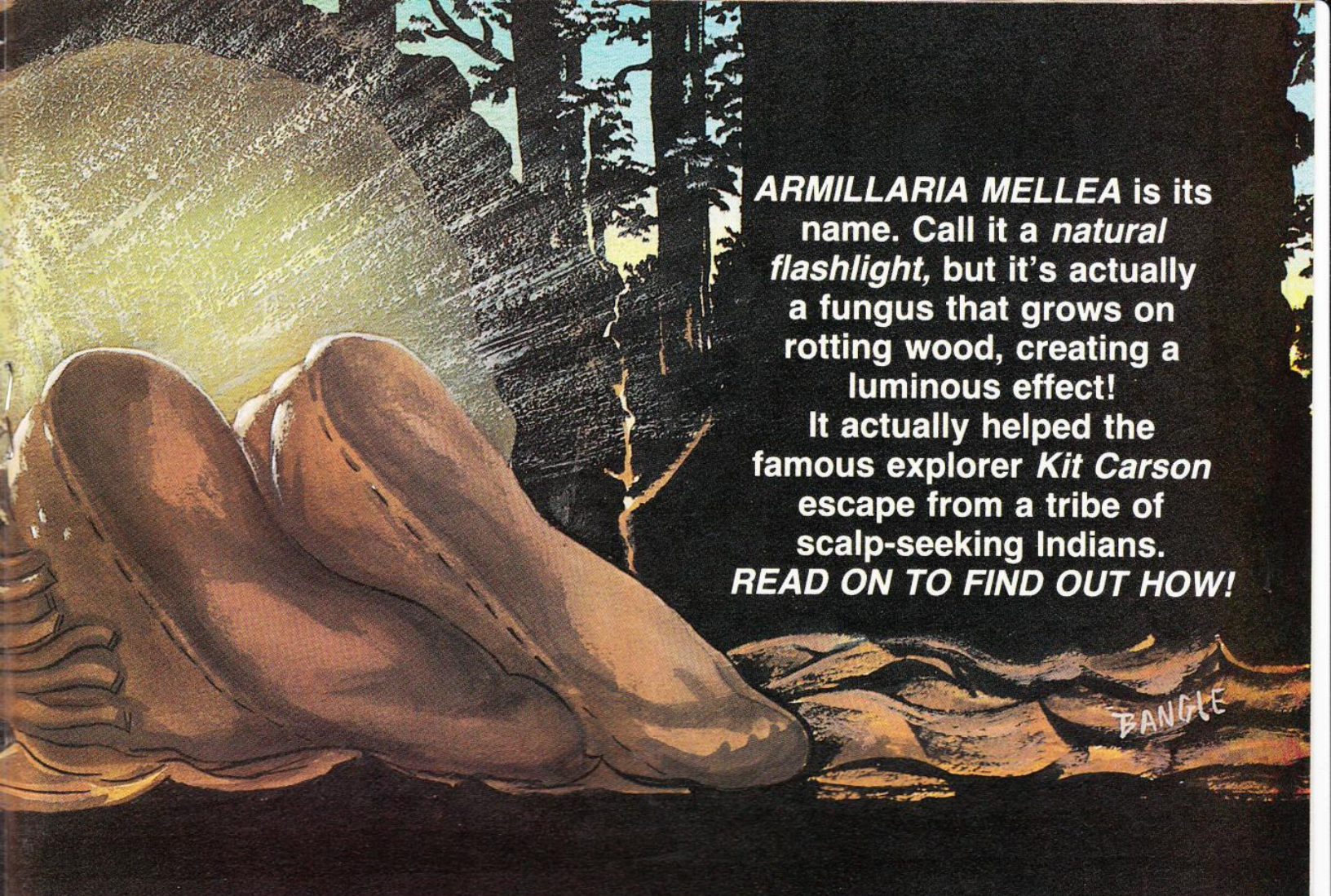
"He figured the tracks belonged to a company of the Utes out looking for deer. He hoped they were not the part of the gang that had attacked a nearby fort the month before. He didn't want to meet them alone.

"Kit thought if he stayed in the shadows that no one could see him. Besides, it was just starting to get dark.

"But he'd walked only a couple of miles when his keen ears caught sounds behind him. He stopped. He heard the sounds again—a light rustle in the leaves. It was footsteps. He was being trailed! Not by one man, but at least three or four.

"Kit knew they were Utes. And because some of their warriors had gotten killed at the fort, they'd probably take a white man's scalp in a minute.





**ARMILLARIA MELLEA** is its name. Call it a *natural flashlight*, but it's actually a fungus that grows on rotting wood, creating a luminous effect! It actually helped the famous explorer *Kit Carson* escape from a tribe of scalp-seeking Indians. **READ ON TO FIND OUT HOW!**

"He had to outwit them. But he was too tired to run. And if he did, the Indians would know he had discovered them. He was low on gunpowder. Of course, what good was gunpowder if you couldn't see your target?"

"Slowly he began to increase his pace. He knew the wild hill country better than the Indians who lived eastward on the plains. With a streak of luck, he might leave them in the forest.

"The woods grew darker. With his mind so occupied, he didn't see a big log stretched across his path. Stumbling, he sprawled over it and hit the ground. A sharp pain shot up from his right foot. It had caught under the log and had twisted sideways as he fell."

"What a time to get a sprain!" Doug exclaimed.

Dad nodded. "Kit got up but when he set his right foot down, he knew he couldn't make it much further, especially with the Indians on his trail.

"Angrily, Kit kicked the log with his left foot. The log sounded hollow. He dropped down on his knees and peered in. A long wooden tunnel—long enough for him to crawl into and hide—rifle along ahead of him.

"There was a chance the Indians might find him. But he'd have to hurry. Lying down,

he eased himself into the log, pushing his rifle along ahead of him.

"The log was roomy enough. But it was damp and rotten. Decaying wood showered down on his clothes and stuck to his sweaty buckskin breeches and jacket. Kit figured if the Utes didn't find him, he'd sleep in the log all night."

"How awful," Doug frowned. "That must have been uncomfortable."

Dad smiled. "It got a lot more uncomfortable because—the Utes were expecting trickery. They stopped when they came to the fallen log. When they saw the moss and leaves had been disturbed at the end of the log, they chattered loudly in broken English.

"'White man in log,' they said. 'He no escape now.'"

"Kit started inching himself out of his hideaway. He figured if he surrendered peacefully, the Utes might not harm him. There was even a chance they'd trade him for some of the Indians captured at the fort.

"As he backed out, more rotting wood rained down. It clung to his hair and stuck to his face. With a painful effort he rose to his feet. In the dimness he saw three forms standing before him like statues.

"He expected the Indians to grab him and bind him hand and foot. Instead, all three began to back up. 'Fire Spirit!' one

of them yelled. Then they turned and ran.

"Kit wasn't quite sure what had gotten into them. That is, until he raised his hand to brush his hot brow. He saw that his arm glowed with a soft light. He looked down. His whole body was glowing as if it were on fire."

"Fox fire!" exclaimed Seth.

"That's right," said Dad. "The rotting wood inside the log was full of fox fire. It was all over Kit—on his clothes, in his hair, even on his face."

Doug picked up another piece of the rotting wood. "You know, we'd have never seen the fox fire if Seth hadn't broken the wood apart."

"That's right," said Dad. "God has made man special things in nature that He's just waiting for us to discover. We've just got to take the time to look for them and study them."

"I never realized that a piece of rotting wood could be beautiful," said David. "It was one of God's nature secrets. I wonder what else I can find?"

"Well, right now," said Seth, "I think we should get that fire going. I'm hungry enough to eat a bear!"

"Would you settle for some of Mom's camp bread and hot soup?" asked Dad.

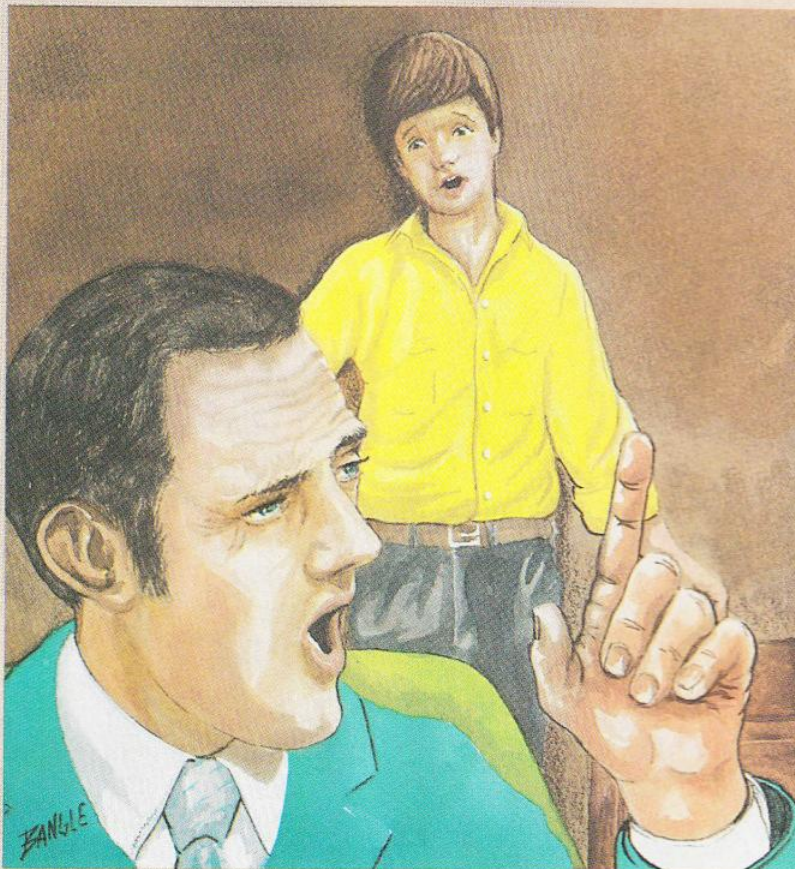
"Sure!" said Seth as he grabbed his spoon and bowl. ★



# **STRANGE**

## **HUNTERS**

---



---

**Mark Adams told his dad,  
“Doug Hopper just phoned  
and said he’d like to go  
*hunting* in Harkman’s Woods!”**

**Mr. Adams’ paper dropped  
to the floor.  
“*No one ever hunts there!*”**



"Mark loved the friendly forest. All the birds and animals were his friends!"

By O. J. Robertson

**M**ark Adams' sun-tanned face frowned as he turned away from the telephone. "Why did I ever ask that new boy to visit me?" he asked hopelessly.

Mark's father looked up from his newspaper. "What's wrong, Mark?" he asked.

Mark flopped down on the sofa. "Remember the Hopper family that bought the Fawbush farm and moved out there early this summer?"

Mr. Adams nodded. "I spoke to Mr. Hopper in town Saturday."

"Well," Mark began, "there's a boy—Doug—about my age. I met him yesterday while riding my bike. He seemed nice, so I asked him to come over and visit me."

"What's wrong with that?" Mr. Adams looked puzzled. "We're supposed to be friendly with neighbors. Your mother and I plan to call on the Hoppers soon. If you and Doug are already acquainted, that's good!"

"You don't understand, Dad," Mark sighed. "Doug Hopper just phoned and said he'd like to go hunting in Harkman's Woods!"

Mr. Adams' paper dropped to the floor. "No one ever hunts there! That forest has been a private game refuge for a hundred years!"

Mark swallowed hard. "Me and my invitations."

Harkman's Woods once belonged to John Harkman, Mark's grandfather. Grandpa John was a naturalist. He set aside the eighty acres of forest land, now part of the Adams farm, as a permanent home for migratory and native wildlife. Trees, vines, and wild plants furnished protection and provided food for many birds and animals. Harkman's Creek, fed by a sparkling spring, supplied drinking water and filled the pond. There beavers built a dam and wild geese and ducks rested on autumn and spring

flights.

Great-grandfather wanted the forest left undisturbed and Mark's grandfather was the same way. When Mark's father inherited the farm, he decided: "We'll keep the woods for nature lovers."

Mark loved the friendly forest. He spent many pleasant hours among the big trees. He enjoyed watching the red-headed

**Doug Hopper excitedly told Mr. Adams, "I'm sure Mark and I will have a good hunt in your woods!"**

**Mr. Adams said, "Those woods are a sanctuary for wildlife. Hunters with guns are not allowed."**

woodpeckers that drummed the treetops, the scampering chipmunks, the frisky gray squirrels, and the beavers that paddled over the pond. All the birds and animals were his friends.

A bicycle turned into the drive. It was Doug Hopper.

Mr. Adams stood up. "We'll explain about Harkman's Woods," he said quickly.

Mark peeped through the window curtains. "Dad, he doesn't have a gun!"

Mark and Mr. Adams walked out on the porch.

"Hello, Mark," Doug called, climbing off his bike.

"Good evening Mr. Adams. It was great of Mark to ask me over." He looked at the hills beyond the Adams house where the trees of Harkman's Woods were thick bands of deep shadowy green. "I'm sure Mark and I will have a good hunt in your woods."

Then Doug opened the carrying case strapped on his bike. Carefully he lifted out a small black rectangular box.

"With my Polaroid camera I should get some good shots," He said hopefully.

"I don't understand," Mr. Adams looked puzzled.

Doug opened the black case. He took out a camera.

"It's a used Polaroid," he explained. "I earned money to buy this camera. It's not the best one, but it works. It takes black and white and color pictures."

Mark's eyes widened. "You mean you hunt with a camera?"

Doug sat down on the edge of the porch. "When I hunt, it's always with a camera," he responded. "Some people think I'm strange, but I love birds and animals. Back in the city, I was a Junior Conservationist. I read books on forestry and wildlife. Then I joined the Camera Club and began taking pictures of birds and animals and wild plants. You see, I want to be a forest ranger when I grow up, so I decided to get acquainted with all the interesting creatures in the woods."

Mark's smile broadened. Mr. Adams looked pleased.

"Those woods up there, Doug," Mr. Adams said, motioning with his hand, "are a sanctuary for wildlife. Hunters with guns are not allowed. Hunters with cameras, well—that's different, but it sounds interesting."

Doug bounced off the porch. "A game

CONTINUED ON NEXT PAGE ►



refuge! What about beavers, Mark? Do you have any?"

"Harkman's Creek has one lodge and a half dozen beavers!" Mark said proudly.

"Great!" Doug beamed. "Maybe I can get some good shots for the photo contest a naturalist magazine I read is sponsoring. When can we start for the woods, Mark?"

"Right now," Mark said. "I'll get my bike."

"Not so fast, boys!" Mrs. Adams stood in the kitchen doorway. "You don't leave until you drink this lemonade." She had a pitcher of icy lemonade and glasses on a tray. Mark and Doug hurriedly drank the lemonade.

"Thanks, Mrs. Adams," Doug said politely, 'you make good lemonade.' He turned to Mark. "Do you have a camera?"

**"THOSE WOODS  
UP THERE  
ARE A  
SANCTUARY  
FOR  
WILDFIRE."**

"A small one," Mark said, "but I'm out of film. I've never taken wildlife pictures, but it sounds like fun."

"Oh, it is," Doug agreed. "I'll teach you how to use my Polaroid. It develops the pictures on the spot. Maybe you can get a used one someday. If you can't, you can always borrow mine. With a wildlife reserve at your back door, you'll want to do a lot of hunting."

"You make it sound so interesting. I'm sure I will," Mark laughed. "But I'll want you along to help me." He hopped on his bike. "We can ride part of the way. Mother," he called back, "could you have some more lemonade for us when our hunting trip is over?"

"Cold and icy, just the way you like it," Mrs. Adams replied. "And I'll bake some cookies for you and Doug to enjoy, too."

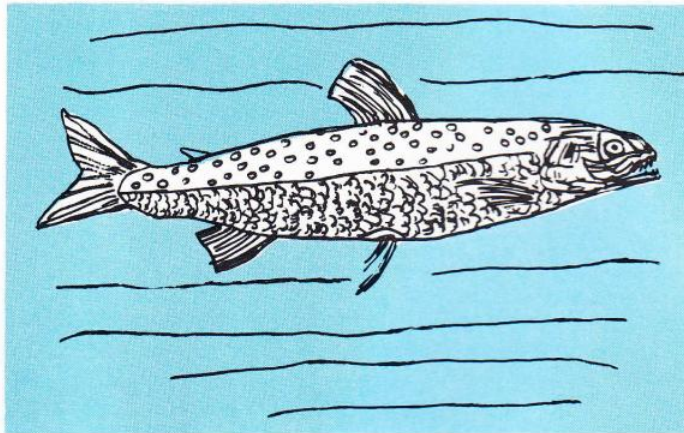
★



"BUT THIS IS A SPECIAL CASE... HE HELPED US CHANGE A TREE"

# ANIMAL TRIVIA

TRUE OR FALSE:  
**A TROUT CAN SWIM 5 M.P.H.**



BY HERBERT V. PROCHNOW

**T**here are almost one million kinds of animals in the world. They include horses, elephants, dogs, goldfish, butterflies, worms, eagles, oysters, lobsters, seals, and thousands of others. The 800,000 kinds of insects are the largest group. There are over 30,000 kinds of fishes, 9,000 kinds of birds, and 15,000 kinds of mammals with self-regulating body temperature and hair.

Many animals are so small they can be seen only with a microscope. The largest animal is the blue whale which is about as long as two railroad cars. It is bigger than the elephant or the giraffe.

The animal with the largest ears is the African elephant whose ears are as large as four feet across. The horse has the largest eyes of any animal.

A giant tortoise may live over 100 years, but a fly lives only a few hours or days. A tree-climbing crab can climb a palm tree and get coconuts for food. It cracks the coconuts with strong claws.

The speed with which animals can move varies greatly and many figures are estimates. Birds are the fastest with flying speeds as high as 175 miles an hour. The great African elephants can go twenty-five miles an hour, the turtle only one-tenth of a mile. Others of God's creation are fast also: golden eagle, 120 mph; robin, 30; canvasback duck, 70 mph; housefly, five; jackrabbit, 45 mph; house cat, 30; ostrich 50 mph; trout, five; goldfish, four; gray fox, 40 mph; hummingbird, 60 mph; dolphin, 25 mph; and whale, 20 mph.

Only man is more intelligent than apes and monkeys.



# P L A N T

## N I C K N A M E S

by Ollie J. Robertson

Each plant is a nickname for one of the states in the U.S. Match the plant with the correct state.

- |              |                         |
|--------------|-------------------------|
| 1. NUTMEG    | _____ A. ALABAMA        |
| 2. PALMETTO  | _____ B. WASHINGTON     |
| 3. BLUEGRASS | _____ C. MISSISSIPPI    |
| 4. MAGNOLIA  | _____ D. KANSAS         |
| 5. COTTON    | _____ E. CONNECTICUT    |
| 6. PINE TREE | _____ F. MAINE          |
| 7. SUNFLOWER | _____ G. SOUTH CAROLINA |
| 8. EVERGREEN | _____ H. KENTUCKY       |

Answers:  
1. E, 2. G, 3. H,  
4. C, 5. A, 6. F,  
7. D, 8. B.

## F O R E S T • F I R E S • D A N G E R

BY STEPHANIE SLAHOR, Ph.D.

**F**orest and brush fires pose dangers to outdoorsmen, but there are ways of meeting those dangers to minimize their effects on people and property.

There are three types of these fires. **Ground fires** are on or just below the surface of the ground. They are very slow in their movement and can be undetected for a long time. They do root damage to plants and trees. **Surface fires** occur just at the surface and a little above it, affecting short trees and most plants. These can be slow or fast moving fires. **Crown fires** occur when surface fire catches in the "crowns" of the trees. They tend to move fast and are very dangerous. Surface fires are the most common type.

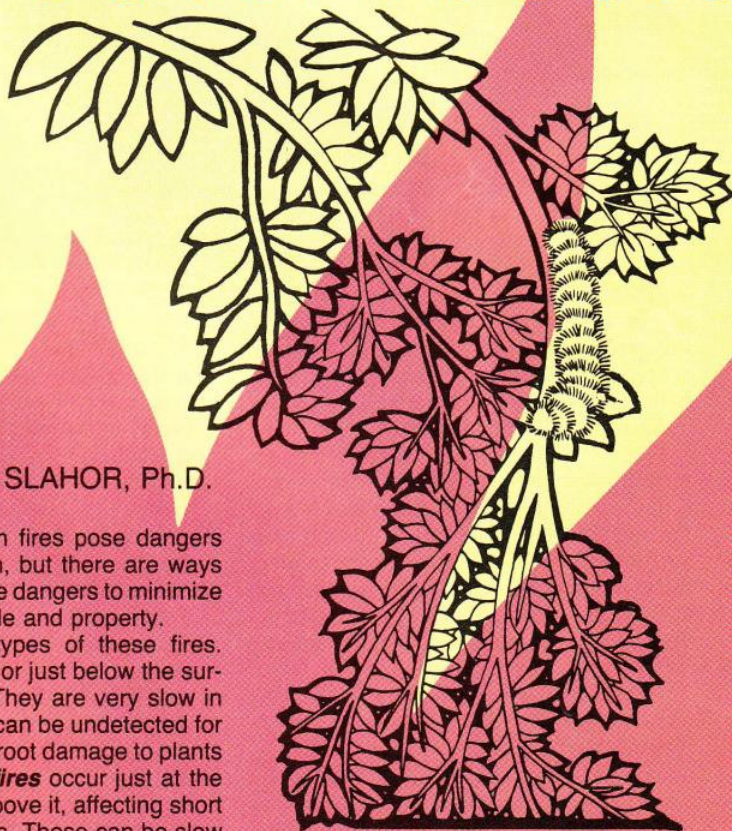
**Brush fire** is a term that refers to the

burning of an area that does not have many trees. The vegetation is primarily shrubs, short trees, bushes, and grasses.

Prevention of fire is a responsibility of outdoorsmen whenever their outdoor activities involve the use of fire of any kind.

Matches should be blown out, then held until they are cold to the touch. Even then, they should be broken in half. If an area permits campfires, the area around them should be cleared about six feet in diameter. Use the brush and grass as kindling and fuel. Surround the fire place with rocks and build the fire in the center of the cleared area. Someone should be with the fire at all times. When a campfire is to be doused out, drown and stir it several times until all sides of the logs are out and the fire area is cold. The ground around the fire place should be soaked with water, too. Don't forget to report any sightings you make of fires. That information can help prevent a small fire from turning into a large one.

If you are caught by a forest/brush fire, try to get behind it or on its side. Don't try to outrun it, instead try to get to its side if it is approaching. ★





## HOME

BY IVA V. McINTYRE



There's a piece of fungus on my bookshelf, hardened now like stone, with my name and those of two companions and a date carved into it. Each time I glance at this memento, it's like a breath of fresh air as I'm reminded of a tranquil, sunny summer afternoon spent in the woods so many years ago. An expedition to the woods is not always convenient, so why not bring some of this natural beauty into the home for daily enjoyment year around? You can, you know, by building a woodland terrarium.

The first thing to be considered is the container. It can be small or large, covered or uncovered, but should always be of clear glass. An old, perhaps cracked, fish tank makes an ideal terrarium, as do fish bowls and jars with large openings. A piece of window glass or plastic will serve as a cover. Moisture added to the soil is soaked up through the roots of the plants and lost through their leaves. If the container is covered, the water condenses on the sides and runs down into the soil again. A covered, properly balanced terrarium should only have to be opened occasionally to prune the plants. If the terrarium is not covered, it releases humidity into the room and will need more frequent watering.

A trip to the woods or marsh will not only provide all the plants, soil and moss required, but will also give you insight as to how the plants grow naturally. Before digging, however, be sure you are not trespassing or digging illegally. Do not take all your plants from one area, and before leaving fill in the holes with soil to protect roots of nearby plants.

Try to collect small plants, carefully digging them with a large spoon or trowel and place them, soil intact, in newspaper or plastic bags in a basket or box. Moss should

be stripped and packed with green sides together. If necessary, the plants can be kept fresh in the refrigerator for several days.

When ready to plant, place an inch or so of gravel or small stones on the bottom, followed by a layer of charcoal chips or granules to keep it sweet-smelling. Add soil to the depth the plants grew naturally, forming a slightly rolling landscape.

Place larger plants to the rear of a rectangular terrarium, and in the center of a round one. Tramp the soil down well around the roots and cover it all with moss. Use your imagination here by adding stones, bark, small figurines, or even a small mirror to simulate a lake. Mist light with a fine spray, cover and place in a light place *out of direct sunlight*.

Do not over-water any terrarium as the roots will rot and die. More water can always be added if wilting occurs. Yellowing leaves or fuzzy patches indicate too much water. The lid should then be removed until the soil dries out. Remove the lid also, for a few hours, if the glass fogs up.

Plants are like people or pets. They come in all sizes and shapes and require food, light, warmth, water, and attention. Treat them well and they will be your friends and give you much pleasure. ★

## BIBLIOGRAPHY

The New Garden Encyclopedia

Written by a group of horticultural experts and edited by E.L.D. Seymour, G.S.A.

New York—Wm. H. Wise & Co., Inc., 1946

The Greenhouse—1978 Western Publishing Co., Inc.

New Illustrated Encyclopedia of Gardening Edited by T. H. Everett

Contributions from twenty horticulturalists and authorities in the U.S. and Canada. MCMLX by the Greystone Press, New York. Library of Congress Catalog Card No. 60-7000

Look, Mom, It's Growing

By Ed Frink—1976 A. B. Morse Co., Countryside Books, Barrington, Ill.

Better Homes and Gardens HOUSE-PLANTS

Meredith Corporation U.S.A.

Second Edit. Tenth Printing 1976

Library of Congress Catalog Card No. 75-1651056



# THIS ISSUE'S FUNNIEST JOKE

**Quiz:** What word starts and ends with "e" and contains only one letter?  
**Answer:** Envelope.  
 Henry Leabo  
 Lancaster, CA

# COMEDY CORNER



During the lesson on the North American Indian, teacher asked if anyone would tell what tribe leaders were called.  
 "Chiefs," one bright lad said.  
 "Correct. Now what were women called?"  
 After a long silence another boy piped up, "Mischiefs."  
 John A. Johnston  
 Manchester, CT

**Tourist:** "You never had an accident in your life?"  
**Cowboy:** "No, but a rattler bit me once."  
**Tourist:** "And you don't call that an accident?"  
**Cowboy:** "Naw, he bit me on purpose."  
 Henry Leabo  
 Lancaster, CA

**Passer-by:** "Well, I see you're putting up a new building."  
**Workman:** "Yes, sir. That's the only kind we ever put up."  
 Henry Leabo  
 Lancaster, CA



ANSWER TO PUZZLE  
ON PAGE SIX



**Jim:** "What do you say to a 200-pound mugger?"  
**Tim:** "I give up."  
**Jim:** "That's right, only you say it faster."  
 Henry Leabo  
 Lancaster, CA

The motorist who had run out of gas on a country road saw a boy coming along, carrying a big tin can. "I certainly hope that's gasoline you have there," he said.  
 "It better not be," the boy said. "It would taste terrible on Ma's pancakes."  
 John A. Johnston  
 Manchester, CT

A museum tour guide told his group, "That mummy in the glass case is two thousand and nine years old."  
 One of the group asked how he could date it so closely.  
 "Because when I came, it was two thousand years old, and I've been here nine years."



# T E R

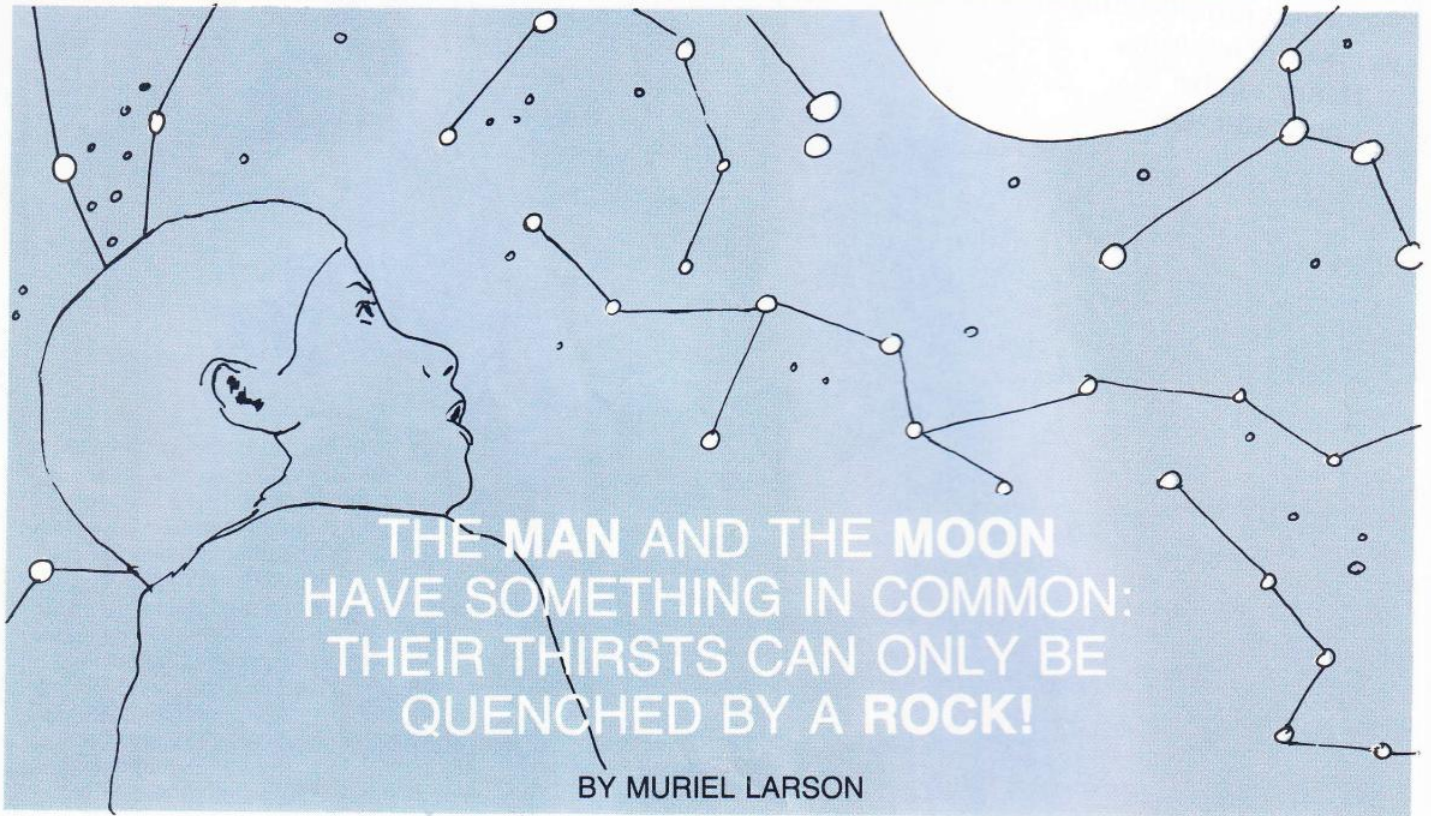
---

## U J T O F

---

## R O C K S

---



**G**eologists have actually discovered a way to get water out of rocks that have been dry for thousands of years. Using the simple principle of heat, the Oregon Department of Geology has done just that. Out of 77 pounds of rocks which a geologist loads into a small furnace, he is able to get one pint of water. This may not seem like a lot of water to us here on earth; but if people ever try to live on the moon, this system might help keep them in drinking water!

The moon has plenty of rocks, as well as unlimited solar power available. These might supply the water. The water is obtained by heating the rocks to release the hydrogen and oxygen; these then combine to make water.

Getting water out of rocks in this manner is certainly remarkable. But just think, 3,500 years ago Moses struck a rock at God's command and water enough to quench the thirst of millions of people gushed out!

The Bible says, "And the Lord said unto Moses . . . Behold I will stand before thee there upon the rock in Horeb; and thou shalt smite the rock, and there shall come

water out of it, that the people may drink. And Moses did so in the sight of the elders of Israel" (Exodus 17:5, 6).

The Bible says (speaking of the Israelites in the wilderness): They did all drink the same spiritual drink: for they drank of that

**ON THE MOON, ROCKS  
HOLD A POTENTIAL  
SOURCE OF WATER.**

**ON THE EARTH,  
MAN IS DEPENDENT  
ON THE ROCK  
OF JESUS CHRIST  
TO SUPPLY HIM WITH  
LIVING WATER.**

spiritual Rock that followed them: and that Rock was Christ" (1 Corinthians 10:4). Thus the Bible says that Rock was Christ—or at least a type of Christ, a symbol of Him. It was from Him that the Israelites received their help; and it is from Him that we may receive ours. When we trust in Him as our Lord and Saviour, He saves our souls. When we trust in Him to help us and supply our needs, He does that too.

Jesus said, "If any man thirst, let him come unto me, and drink. He that believeth on me, as the Scripture hath said, out of his belly shall flow rivers of living water" (John 7:37, 38). This living water, the Bible says, is the Holy Spirit (John 7:39).

Have you been to the Rock, the Lord Jesus Christ, to receive the rivers of living water He has for you? And if you have been there, are these rivers flowing out of you to meet the thirst of others?

The way to experience the sweet taste of God's salvation through Christ is to allow the Holy Spirit to have full control of your life. Oh, how clear, cool, and refreshing it is to have the living water fill you and overflow to others! ★