BIGGEST SELLING MAN'S MAGAZINE

TRUE

THE MAN'S MAGAZINE

25c MARCH 1956

A FAWCETT PUBLICATION

WIN

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WHO SAYS big action lies beyond the range of average fishermen? Not with *today's* Sea-Horses! The smooth and mighty power of these modern motors makes possible a new type of outboard fishing boat—fast, comfortable, seaworthy—with characteristic outboard maneuverability *and inherent outboard economy!*

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JOHNSON MOTORS, 2100 Pershing Rd., Waukegan, Illinois
A DIVISION OF OUTBOARD, MARINE & MANUFACTURING COMPANY
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Johnson *Sea-Horses are famous for DEPENDability*

When the other kids ask...

WHAT DOES YOUR DAD DO?

How does your boy answer them?

Sure . . . you're his hero. You *know* that. But sometimes it can get kinda tough if the other kids don't seem to understand about the "old man."

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MARCH 1956

TRUE

THE MAN'S MAGAZINE

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Robert Pinkerton.Man to Man
Beach Conger.....Travel
Virgil (Vip) Partch...Humor

'Tis strange, but true; for truth is always strange—stranger than fiction.—Byron

CONTENTS

COVER PAINTING BY JOHN CLYMER

VOL. 36 A FAWCETT PUBLICATION No. 226

THE FACT STORY MAGAZINE FOR MEN

John E. Miller, *Advertising Manager*

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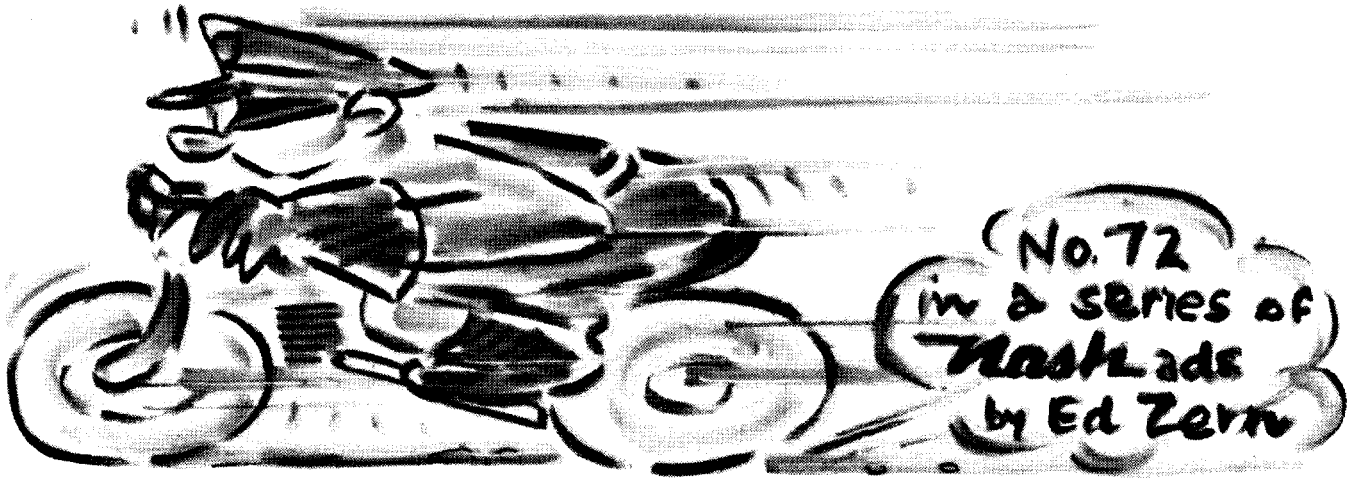

ONCE upon a time a cop hauled a motorist into court and said he'd caught him doing 75 miles an hour in a 1956 Nash Ambassador, and with an expired driver's license to boot.

"Well, buster, what was your hurry?" demanded the judge.

"I was on my way to play in a squash-racquets tournament, your Honor," explained the motorist. "And that new Nash handles so easily and rides so smoothly I just didn't realize how fast I was going."

"Hmmph!" said the judge. "March yourself upstairs to Room 734 and get yourself a license, pronto!"

"Beg pardon, your Honor," said the cop, "but Room 734 isn't where they issue driving licenses!"

"Of course not, stupid," said the judge. "It's where they issue hunting and fishing licenses. I'm getting sick and tired of having squash players and other unauthorized persons zipping around in Nashes—okay, buster, get moving!"

●

MORAL: *Sound judgment pays off. After the judge was thrown off the bench he got a job as a Nash salesman, where he was happy as a lark telling people about the many nifty features (including Twin Travel Beds, Airliner Reclining Seats, All-Season Air Conditioning and Jetfire V-8 Power) found only in "The World's Finest Travel Cars."*

TRUELY YOURS

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Package Deal

Perfume companies saturate their advertising pamphlets with the scent they wish to sell. Why doesn't TRUE soak its copies with fine old bourbon, rye or Scotch? You devote about 20 pages of articles, cartoons, and advertisements telling me how to be a drunk. I could get stimulated, educated and inebriated—all on the same two bits.

—James B. Holland
Comfort, Tex.

We'd gladly do as suggested, bub, except for our tax laws. A Scotch-scented copy of TRUE would probably cost $1, after the Internal Revenue boys put their bite on it. It's cheaper to flavor your own magazine. Just drag it along the top of a popular bar.

Bedroom Brawl

I'd hate to drink the wine sister Ann Delafield is tromping out of her tub full of sour grapes. Boo to *Bed & Bored.*

—Robt. W. Miller
Oak Ridge, Tenn.

Some women wear pajama tops, too; but did you ever hear a man complain about it? Come on girls—admit it: you're just not as intense, sexually, as we are.

I'm sorry I can't sign my name. I'm a sociology teacher, and many of my students read TRUE. Just call me:

—Pajama Top Pete
Saginaw, Mich.

If Don Cooley needs any help pinning Ann Delafield's ears back to her big fat head, call on me. I'm a hundred-pound redhead who likes a *real* man.

She can take the lap-dogs; I'll take the hunting and fishing "boudoir bums." Don't worry, boys, some of us gals like you the way you are—so *don't change,* for Pete's sake!

—Mrs. Jean Myer
Alhambra, Calif.

You mean for Jean's sake?

I'd suggest Ann Delafield park her moccasins under my bed some night. But she'd better not arrive with any foregone conclusions just because I'm an American male.

—Chuck Acrey
San Antonio, Tex.

A salute to Ann Delafield! My husband was a "bedroom bore" until he read her piece. I'm sending in a renewal subscription for him.

—Mrs. R. C.
Chicago, Ill.

Sending your money back, ma'am. A lady neighbor of yours already sent a subscription order in for *Mister* "C."

Silent Nightherders

The December cover of the three cowpunchers gazing at the star thrilled me more than any other cover on any magazine. Maybe because I was one of those cowpokes years ago in Wyoming and South Dakota.

—Lt. Col. Rufus J. Pilcher
Riverside, Calif.

How can I get a copy of your fine December cover illustration? The quiet beauty of the night herd scene suggests the title, "Silent Night."

—Dana Williamson
Denver, Colo.

Sorry to disappoint you, Dana—and the hundreds of other readers who also wrote in requesting reproductions of artist Ludekens' lulu of a cover illustration. Prints are not available.

Pipe Dream

The item in *Man to Man Answers* about Meerschaum pipes (Dec. '55 TRUE) reminds me of the world's most beautiful Meerschaum in the Dunhill collection. This pipe was broken in on the theory a Meerschaum should never be allowed to cool off—once the breaking-in process was started.

A wealthy Englishman in the 19th century arranged to have this Meerschaum passed around among the Royal Guard and smoked incessantly, 24 hours a day, until perfectly seasoned and colored. It was wrapped in flannel strips for protection because Meerschaum is soft until well-used.

After seven months, the pipe was returned to the owner (who supplied all the tobacco, by the way) and its beauty indicates the belief is correct about never allowing the Meerschaum to cool off during the breaking in.

—Paul T. Paulsen
Torrance, Calif.

Must have made a mighty purty sight, all right. The Royal Guard passing in revue, handing the pipe around by the numbers, and puffing in cadence.

Radiant Health?

Dear Seth Tom Bailey:

I have received a number of letters regarding my visits to the uranium mine you described so well in your article, *The Underground Cure for Arthritis* (December '55 TRUE).

I have made a third trip to the Free Enterprise mine and the reaction was much more violent than the other trips. I became violently sick on the way home, but I can truthfully say I feel entirely normal now. I have taken no medication for several months.

If I can help others get to the mine and lose the kind of pain I experienced, I'll feel my small part in this matter has been worthwhile. I only wish more professional men would read your article.

Thanks again for presenting all sides of a controversial subject. The facts and figures were balanced with a touch of humor and compassion.

—Everette Kracaw
Fort Madison, Iowa

That's a pretty tall story author Bailey told about the old dog, Solomon, visiting the uranium mine here in Boulder, Wyoming, then hunting and chasing cats up in Montana. Does he imply that Solomon felt so good after being in the mine he moseyed all the way up to Montana?

—Webb D. Martin
Yuma, Colo.

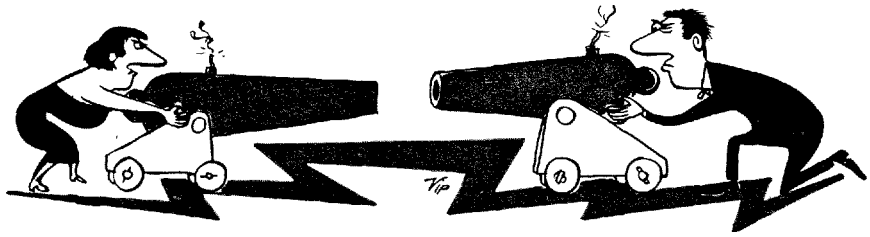
If you'll look at the article again, you'll see the author was referring to Boulder, *Montana,* not Wyoming.

We know of another ailing dog here in Missoula that had to be carried into the radioactive mine but was able to walk out after the usual exposure time.

—J. H. Coleman
Missoula, Mont.

Donner Donnicker

Much of *The Bloody Ordeal of the Doomed Donners* in the December TRUE was



☆

Mainstays of the Hertz rental fleet. Front row (left to right)—Buick, Ford, Chevrolet. Back row—Cadillac, Oldsmobile, Plymouth

Why does Hertz — world's largest rental fleet — use Champion Spark Plugs?

Operating 15,500 cars and 15,000 trucks, Hertz wants the most power and the most miles per gallon . . . so Hertz uses full-firing Champions!

You can bet that Hertz, world's largest rental fleet, knows all about spark plug performance and value!

All around the globe, Hertz has put spark plugs through the world's toughest road tests. The fact that Hertz uses 5-rib Champions speaks for itself!

Whatever car you drive—Chevrolet, Ford, Plymouth or any of the higher-priced makes—take a tip from Hertz' experience and use 5-rib Champion Spark Plugs. You'll feel the difference in faster starts, quicker response, more miles per gallon, when you get the best —*5-rib Champions!*

CHAMPION

LOOK FOR THE 5 RIBS

written in imaginary dialogue and is full of historical mistakes and falsehoods. *Vicious* describes it.

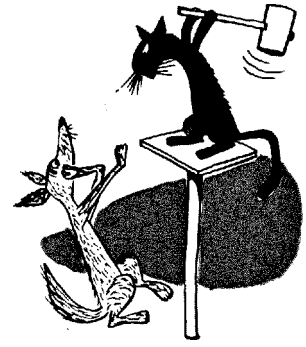
—Mrs. William C. Newlin
Great-granddaughter of Capt. G. Donner
Santa Barbara, Calif.

Do you pretend that such a mixture of historical fact and morbid fiction as the article about the Donner party is true? To my sorrow, I suppose I will nevertheless continue reading your magazine as long as this type of entertainment is offered.

—Irvine Patten
Colony, Wyo.

There was no fiction in *The Bloody Ordeal of the Doomed Donners*. Author Croy went over every foot of the trail (much of it on foot) that the ill-fated party followed. He researched all available data. The dialogue was not literal, of course, but factual as to occurrences and events.

Hep Cat



Your article, *Chase the Devil*, about wolf hunting in Texas, reminded me of meeting an old trapper north of Spokane, Wash. He had an unusual way of catching coyotes. He'd plant a post in a grassy clearing, then nail a little platform on top of the post. He'd then secure an old tomcat on the platform—making sure the cat couldn't get down nor the coyotes couldn't get up as high as the cat. He'd plant his traps in the grass all around the post, and you'd be surprised at the number of coyotes he caught that way.

—Lee J. Nance
Yardley, Wash.

Did he catch any lady cats?

Last Roundup

Can't something be done to save the wild horse from extinction? Every year tens of thousands are rounded up by airplane then shipped off to make dog food. The western cattle and sheep ranchers justify this slaughter by saying the horses graze off feed the cattle and sheep should have. Yet this grazing is in public domain, for the most part.

Unless something is done soon, there will be no more wild horses. Even the buffalo got a better break than this.

—Robert M. Veal
Casper, Wyo.

Somehow your plea doesn't move us. Wild horses we've seen are runty and ill-equipped by nature for the wild animal's life. In the wild state they are pests with no more excuse for preservation than house cats that decide to run wild.

Fair-To-Middling Sex

That "psychologist" who teed off on women in the *Truely Yours* letter obviously was correct. The truth hurts, and all those yowls of pain in the letters answering his, indicate he was so-o-o-o right.

—Doug Kenton
Chicago, Ill.

The TRUE COMMITTEE FOR THE PRESERVATION OF THE AMERICAN MALE has studied the hundreds of responses to Psychologist Scott's letter. Results of the study show Scott exactly right: the American female is self-centered, egotistical, inhibited, selfish, high strung, unsatisfied, unpredictable, undependable, and an incessant whiner.

Gun Powder River

I hadn't realized until I read the well-told account of Sir Gore's expedition of slaughter (*The Damnedest Hunt in the World* by E. Ward McCroy) that he passed through this very Powder River basin. He certainly helped make the buffalo and elk disappear, but thank Heaven the antelope weren't all killed off.

—H. O. Davidson
Waltman, Wyo.

Thunderbird Shooter

Mister Kennedy, your chit about Mr. Ford's "Bird" is for the boids. Your race, described in *The Editor Speaking* column, was too short in laps, too long in the straightaway. Furthermore, the clocks on the "Bird" are more optimistic than timers on high school 100-yard dashes.

—Ted Roland
Los Angeles, Calif.

Speedometers on all cars are admittedly off . . . most of them at least 10% over 50 mph. Race described won as stated.

Brandy Snifter

Congratulations on *What Do You Know About Cognac?* by Don Stanford. We people in this country need to know more about enjoying better vintages and spirits. The western half of America produces good wines and braudies. How about having some articles on them?

—Fritz Tann
Eureka, Calif.

You have done an injustice to a delicious drink: hard cider. In your article, *What Do You Know About Cognac?*, you call hard cider a "friendly" drink capable of giving a man a *slight glow*—if his capacity is big enough.

The alcoholic content of beer is about 3.5% while hard cider runs 6%. Around here

our cider is known as "Old Boomerang" because it comes back and hits you when you're not looking.

Perhaps you've never tasted *good* hard cider, so stop by and I'll have some Russet hard cider waiting for you. So—until then, when I find out how big or small your capacity is.

—John Bucklyn, Clyde's Cider Mill
Old Mystic, Conn.

If we are ever within staggering distance of your cider mill, we'll be happy to demonstrate our capacity for your "Old Boomerang." Keep those presses going.

GLASSY STARE

I've got an old friend who learned the trick of eating glass safely. You'd be surprised how handy this accomplishment is. When he's served a beer with too much head, or if it's too expensive, he just eats the glass.

—Charles E. Kennedy
Tucson, Ariz.

And did you hear the one about the guy who swallowed a glass eye? He got worried and went to the doc, who examined him with a proctoscope, then said, "Hm-m-m, I can't seem to see anything."

"Gee, that's funny," said the eye-swallower. "I can see you!"

the EDITOR speaking

If this month's cover of a caribou hunter by John Clymer gives you an itchy trigger finger I won't be a bit surprised. Pete Barrett, TRUE's outdoors editor, took one gander at the cover and hopped the next plane for Gander, Newfoundland. From there, he took off for one of the damnedest caribou hunts you ever read about. For details, read *Caribou or Bust* on page 30.

Personally, the snow-covered mountains in the background reminded me of another sport: skiing. I feel the same way about skiing that Barrett feels about hunting. I can't get enough of it. I've chased snow-capped peaks (the way a hunter chases trophies) as far west as Sun Valley, Idaho, and Squaw Valley, California (site of the 1956 winter Olympics). And I've chased peaks as far east as Switzerland's Matterhorn. Nowadays, I stay closer to home. Which means that I commute to Vermont every winter weekend from Christmas to Easter. Unlike most skiers, I go to the same place every time, one aptly named Mt. Snow (though some call it Mt. Schmoe). Why the rut? Well, (1) it has the longest chairlift in the East; (2) I'm so nuts about the sport and the place that I bought a part of the mountain; and (3) thus, I can ski for free. If you ever get up there (between Bennington and Brattleboro), look me up. I'll guide you down some of the best trails you ever saw.

* * *

I particularly commend for your excitement and reading pleasure (before or after you've entered our big Anniversary Contest on page 60), the story *Too Hot to Handle* on page 14. It's another in what will be a series of the amazing adventures of Pierre Lafitte, the man we call "the incredible impersonator." I asked author

TRUE MAGAZINE

"You've had enough!"

Jim Phelan to give us a first-hand report on this astonishing man. Here is what Phelan wrote:

"The next time I hope that TRUE will ask me to do something easy, like locating Judge Crater. After six weeks of trying to locate Lafitte (and a series of long-distance telephone calls), I finally hit pay dirt. One night my phone rang and a voice said, 'This is Lafitte. I hear you want to talk to me.'

"When I told him I wanted his full story, he said he'd think it over. I asked him where I could get in touch with him.

" 'You can't,' he said, and hung up.

"Three weeks later he called me again and told me to go over to Los Angeles and register at a certain hotel. I went over there and sat in the room until almost midnight. Then there came a rap on the door and I opened it and met Pierre Lafitte. We talked until 3 o'clock in the morning. Later I found out that he had checked up on me thoroughly before setting up the appointment.

"One of the conditions under which he agreed to talk was that TRUE would use no pictures of him and give no physical description that would enable mobsters to identify him.

"For years he has cruised through the U. S. underworld under scores of names. Although he has worked for the FBI, the Federal Bureau of Narcotics, and various other federal agencies, he is basically a lone-wolf operator. He specializes in difficult cases, the tougher the better.

"He is a skillful actor and has played dozens of different characters—and without make-up. He is a walking encyclopedia on U.S. hoodlums, and has a wonderful grasp of their psychology.

" 'The bigger they are, the harder they fall,' he says. 'Crooks are human, and a human will always make a mistake. Even the most tight-mouthed crook will talk if he meets the right person. Everyone has a compulsion to talk, to tell how big they are, to boast of the capers they've pulled. They can't talk to strangers or neighbors or bartenders, and often not even to their own families. The whole secret is to set yourself up as the right person.'

"The real Lafitte is a fascinating personality. He speaks five languages fluently, has traveled all over the world, and knows Shanghai and Johannesburg the way I know Long Beach. He's a talented painter and caricaturist. He lives simply, and has a gracious wife and two fine children.

"Why does he persist in the most dangerous occupation a man could choose?

"He has a simple answer. 'Somebody has to do it,' he says, 'and I like the chase.'

"He is acutely aware of the dangers he runs, and takes the most careful precautions to protect himself. Beyond that, he adopts a fatalistic view.

" 'Everybody lives in danger of varying degree,' he says. 'If we let fear dominate us, the doctor won't see a patient because he might catch a disease, the fireman won't go to a fire because a wall might fall on him. Everybody has to die sometime, and it is better to die as a man.' "

—doug kennedy

Strange but TRUE

by George R. Martin

The warmth of snow as an insulating blanket has been proven not only by survivals of avalanche victims, whose body heat has kept them alive while buried, but by comparative temperature readings of snow and air. During a severe cold spell in the Midwest, thermometers exposed to the air at the snow surface registered 27 degrees below zero, while thermometers resting on the earth only 7 inches under the snow surface showed 24 degrees above zero—a range of 51 degrees difference between the top and bottom of the blanket. *By Albert Ives, Denver, Colo.*

Among the automobile-safety problems still unsolved is the question of what to do about drivers who are mentally disturbed or handicapped. Because many such persons are quite capable of learning to drive a car and can pass license tests, an untold number of them operate automobiles today. A psychologist, who examined 10,000 drivers referred to Detroit's traffic clinic because of accidents or violations, reported that 1,000 were former inmates of mental hospitals who were still emotionally unstable, 850 were feeble-minded, and 100 were certifiably insane.

After falling 3½ miles to the ground without a parachute, a British airman got up and walked away unhurt, in the most remarkable survival of a free fall in the records of aviation. Sergeant N. S. Alkamade of the R.A.F. was tail gunner in a Lancaster bomber on a night flight over Germany in March 1944 when enemy shells exploded the bomber's fuel tanks. The fire that raged through the stricken plane and burned his parachute in its rack left Alkamade the choice of being cremated alive or jumping to a quick death. He leaped out into blackness at 18,000 feet. The next thing he was aware of was waking up in daylight, on his back in four feet of snow, below trees with shattered branches that had broken his fall. Bruised but uninjured, he walked to a village and was taken prisoner. The German authorities, skeptical of his story at first, made a thorough investigation and then honored him with a certificate verifying his miraculous jump. *By Thomas Styles, Chicago, Ill.*

In the rainiest spot on earth, the drenched populace have devised unique means of defense against the downpour. Villagers of Cherrapunji, in the hill country of northeastern India, are pelted daily during the monsoon season by rains that total almost 400 inches annually and in one record year reached 905 inches. To work their fields and to get around with some measure of comfort, they wear elongated baskets of grass and bamboo that hang backward from their heads to cover them like turtle shells. On windy days, a bamboo shield carried on the arm is used to fend off gusts of rain. Yet, ironically, Cherrapunji is parched for lack of water during the winter months each year when the monsoon rains cease and baskets and shields gather dust. *By Simpson Warren, Youngstown, Ohio.*

When a premature explosion in a drill hole drove the tamping bar through his head, Phineas Gage should have been dead. The bar, an iron shaft 3½ feet long and 1¼ inches thick, went in the side of his face under the left cheek bone, pierced his brain and went out through the top of his skull. But 25-year-old Phineas, a foreman doing construction work for a New England railroad in 1847, lost consciousness only briefly and apparently suffered little pain. A doctor cleaned up the jagged wound openings and, after they closed by skin growth, Phineas lived for many years with no other permanent effect than loss of sight in his left eye. His skull is preserved in the Harvard Medical School Museum, with an iron bar inserted in the holes, as a relic of perhaps the most remarkable accident recovery on record.

The chain-matings of "sea hares," large shell-less snails of the Pacific Ocean that reach 15 pounds, form perhaps the most bizarre reproductive arrangements in nature. Because each sea hare is hermaphroditic—i. e., has the functions of both sexes—it can take either role in reproduction. When one snail has joined another from behind, frequently a third will join to the second, and so on. Occasionally, the leader of a string of six or seven sea snails will swing around and attach itself behind the last in line, completing a circle in which each animal is actively both male and female.

To spit on a fellow human being may be an insult or a compliment, depending on geography. In civilized areas, it indicates supreme contempt, but in less developed countries it may have an entirely opposite meaning. Among some African tribes, spitting conveys luck, and by custom everybody spits on a new baby to show good will and approval. Among other tribes, it is highly flattering to spit into the palm of a person who offers his hand in greeting. In this manner the spitter gives part of himself into the possession of the other person, implying complete trust that the person will not use it for evil magic against the giver.

Camels which can pass through the eye of a needle, in defiance of the Biblical injunction about the difficulty of rich men entering heaven (Matthew XIX, 24), are now a standard item among some 2,000 collectors in this country who make a hobby of collecting miniature objects. Carved from thin ivory, these one-eighth-inch bits of microscopic sculpture are the imported products of Oriental craftsmanship, often done with unaided eyesight, that includes such achievements as several hundred gold or silver spoons nested in a cherry pit, costumed fleas and pictures painted on pin heads with brushes made of spider webs.

The handsomest man in America a generation ago was a square-jawed, clear-eyed, clean-cut character known to millions of admirers only by a trade name. He was the Arrow Collar Man, and his portrait by Artist Joseph C. Leyendecker in starched-neckwear advertisements made him a romantic idol to yearning women, as well as a powerful force in masculine styles. Actually, his real identity varied, for Leyendecker used a succession of models, but chiefly he was Charles A. Beach, the artist's model and unassuming research assistant. The idealized Arrow Collar Man's only fault was in being so good-looking that finally his name entered the language as a term of mockery. By the time he was discarded, however, he had received so many love letters, poems, and proposals of marriage the collar manufacturer soon lost count of them. It seems certain no other American male has approached his success with the ladies before or since.

Probably no mammal ever migrated in larger herds than the springbok, a small African antelope or gazelle 30 inches in height. One of the last and largest of these hordes, seen in 1900, was estimated to be 15 miles wide by 140 miles long, and to contain 300 million of these animals.

For acceptable Strange But True paragraphs, accurately and briefly written, True will pay $25 each on publication. Readers must state their sources of information when sending contributions. None can be returned. Address George R. Martin, True, 67 West 44th Street, New York 36, N. Y.

man to man ANSWERS

conducted by Robert E. Pinkerton and the staff of True

Many people do not realize that true deserts exist in the United States. The Sahara Desert in North Africa and the usual pictures of camel caravans and vast sand wastes have given this impression. Many people also do not believe that plants and flowers can grow in deserts. Ralph Borden of Albany, New York, seems to share these notions and he asks where there is a true desert in this country.

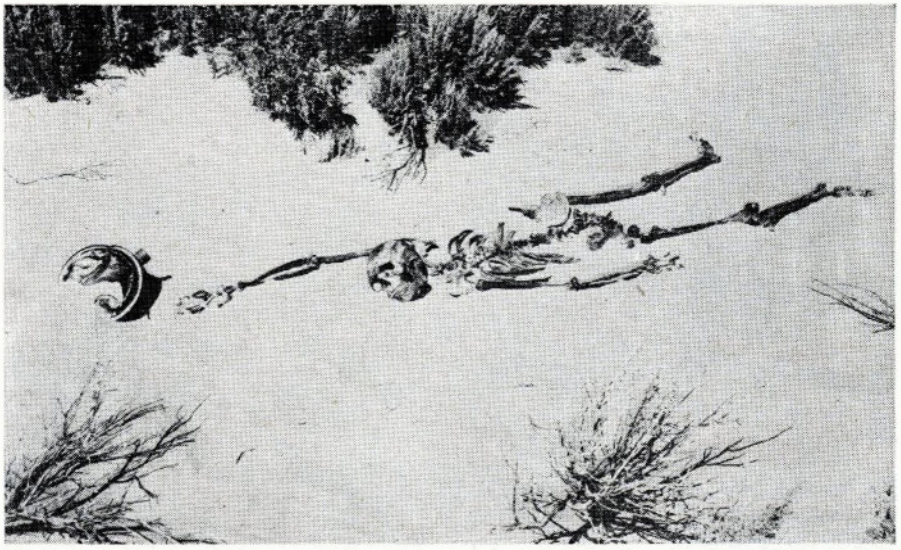
Scientists classify one-fifth of the earth's land surface as desert. The Sahara is approximately the same size as the United States and all its outlying possessions. A district with less than 10 inches of annual rainfall is considered desert, though in some instances soil and temperature conditions make a desert despite 20 inches of rain. Precipitation in deserts usually comes in short, torrential storms, and much of the water runs off on the hard-baked land.

The world's driest spot is the Atacama Desert in Chile. In some places no rainfall has been recorded. Iquique, Chile, had an average annual fall of .05 inches over one period of 25 years. The record in the United States was set at Bagdad, in California's southern Mojave Desert, where only 3.93 inches of rain fell in five years. In Death Valley, California, the average annual precipitation is less than 1.5 inches and the temperatures are among the highest in the world. Rainless years have been known. If Ralph Borden spent a summer there, he'd know we have true deserts.

Chile's Atacama Desert has little vegetation, but Death Valley has quite a bit in places. Desert holly was abundant until tourists nearly destroyed it. Thanks to conservation laws, it is coming back. Other desert plants in the valley are poppy, creosote bush, mesquite and primrose. The record temperature is 134 degrees, exceeded only by 136.4 in the Lybyan Desert.

Desert conditions prevail in nearly all the district between southwestern Texas and the Pacific Ocean, parts of Nevada and Utah and even in eastern Oregon and Washington. Average annual rainfall figures, in inches, in some western cities are: El Paso, Texas, 8.56; Albuquerque, New Mexico, 8.40; Reno, Nevada, 7.73; Grand Junction, Colorado, 8.76; Phoenix, Arizona, 7.12. Streams and ground water in nearby mountains supply irrigation in the above areas, but rainfall is usually concentrated in two or three months. Maximum temperatures are all above 100, some much higher. For comparison, New York City has an average annual rainfall of 41.63.

The great Sonora Desert of Mexico stretches into Arizona and is a true desert, as are the Mojave and Colorado Deserts in California. In southeastern Arizona, the high mountains are cool and pine-covered, but the valley floors are hot and dry. They are rarely bare. Cottonwoods and desert willows grow along rivers and the plains are covered with mesquite, creosote bush and many forms of cactus, including the giant saguaro in the Tucson area. The saguaro cactus reaches 50 to 60 feet in height.



A man doesn't have to enlist in the Foreign Legion in order to die of thirst in a barren desert. The skeleton of this unknown man was found recently in Nevada.

Desert plants have adapted themselves to the harsh life. Annuals may live only a few months but their seeds can lie dormant for 20 years. This explains why in some years the desert is covered with masses of beautiful flowers. In the summer of 1955 unprecedented rains turned the entire Arizona Desert green. Perennial plants run tap roots as deep as 50 feet and some have roots several times the size of the plants. Leaf surfaces have been developed to hold evaporation to a minimum.

Animal life is astonishingly active. Vegetarians get moisture from growing plants. Dry-seed eaters, such as the kangaroo rat and the antelope ground squirrel, can go for weeks without a drink. Water is given off in their bodies when food is combined with oxygen during digestion. Meat eaters get water from their live food. The many varieties of lizards depend on moisture in the insects they eat, as do the many desert birds.

Q: What is the speed of the moon as it revolves about the earth? *Clarence F. Miles, Worcester, Mass.*

A: Its velocity is 2,287 mph.

Q: Has anyone ever duplicated American paper money so that an expert could not detect it at first glance? *King Judge, New Orleans, La.*

A: Unusual duplications of our paper currency have cropped up but most of it is crude to the experienced eye. Perhaps some of the better counterfeits have gotten by for awhile but none can stand close examination. Genuine bills are protected in several ways. The paper is exclusive. Steel plates, engraved, are used, while most counterfeiters use copper or zinc etched with acid. Type used for serial numbers is likewise exclusive, and it is with these numbers that the forger most often goes wrong. Counterfeiters also have much trouble with the fine scroll work, where a microscope will quickly detect the spurious.

Q: What was the speed-boat record in 1940? *Joseph Goebert, Atkinson, Ill.*

A: In 1932 Gar Wood set a mark of 124.915 mph with the 10th of his *Miss America* boats. By 1940 this record had not been exceeded.

Q: Can you determine the age of a turtle by the number of blocks on the underside of the shell? *Don Baker, Shreveport, La.*

A: No, because the number of these square areas is constant through a turtle's life. With young turtles of some species it is possible to determine the approximate age by counting the ridges on each of the plates on the upper side, but these are worn off in old turtles. The Reptile Division of the American Museum of Natural History tells us no general rule exists for telling the age of turtles. An expert can guess age by comparing the turtle's size with that known for the species.

[*Continued on page 23*]

Make her pretty, Mister. She's got to fool some mighty cagey trout. And while you're at it . . .

Light up a Lucky

it's light-up time!

This is all cigarette. Tastes like a million bucks because it's made of fine tobacco . . . **toasted** to taste better. Bet you'll agree it's the best-tasting cigarette you ever smoked!

"IT'S TOASTED" to taste better!

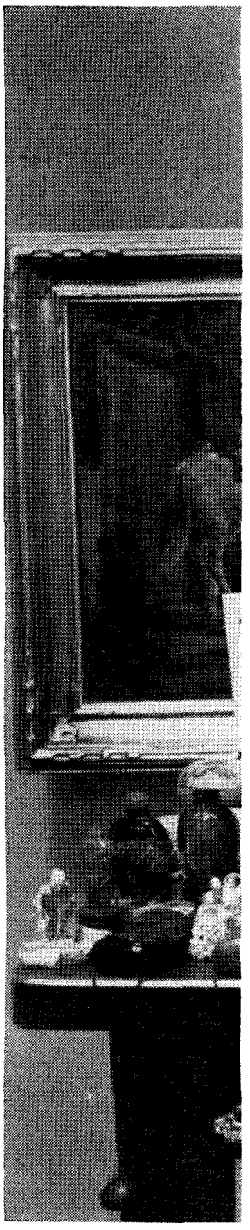
LUCKY STRIKE
"IT'S TOASTED"
CIGARETTES

LUCKIES TASTE BETTER

Cleaner, Fresher, Smoother!

CASE # 2

THE INCREDIBLE IMPERSONATOR



The job that was almost...

TOO HOT TO HANDLE

A fortune in stolen treasure...guarded by America's top Public Enemy. All the FBI asked me to do was take them both—without a gun

Top thug Montos: soft-spoken but deadly.

By PIERRE LAFITTE as told to JAMES PHELAN

Who is the Incredible Impersonator? Who is this inscrutable man of a thousand aliases?

Only one man knows. He calls himself Pierre Lafitte, but for obvious reasons he cannot reveal his true identity—yet.

TRUE readers met this amazing undercover operator in *The Man Who Took Las Vegas* (TRUE, August 1955), when Author James Phelan told how Lafitte, posing as a gangster named Louis Tabet, successfully infiltrated the inner circles of Las Vegas' organized vice.

Lafitte often works hand in glove with the FBI, but even that organization doesn't know the true story of his astonishing background. This much they do know: outside of J. Edgar Hoover himself, Lafitte personally has nailed more criminals than any other man alive.

How does he solve crimes? By infiltrating and *living* in the underworld, by playing a dangerous cat-and-mouse game where one misstep will make him a target for the trigger-hungry mobs constantly hunting him. In a true sense, Lafitte solves crime the hard way—with guts and gall . . . and brains. Says Lafitte: "Somebody's got to do it. And I like the chase."

Reporter James Phelan tracked down Lafitte for TRUE. Here is the inside story—the first of many cases TRUE will publish—of how the Incredible Impersonator works.—THE EDITORS

The Zerk collection, worth almost $200,000. Shortly after it was stolen, Lafitte was dangerously conning the thieves.

CHICAGO

Every now and then you read about the "new Chicago," how the gangs died out with Capone and how the Windy City is now as clean as a hospital nursery. Whenever I bump into this fable I think about the Zerk case.

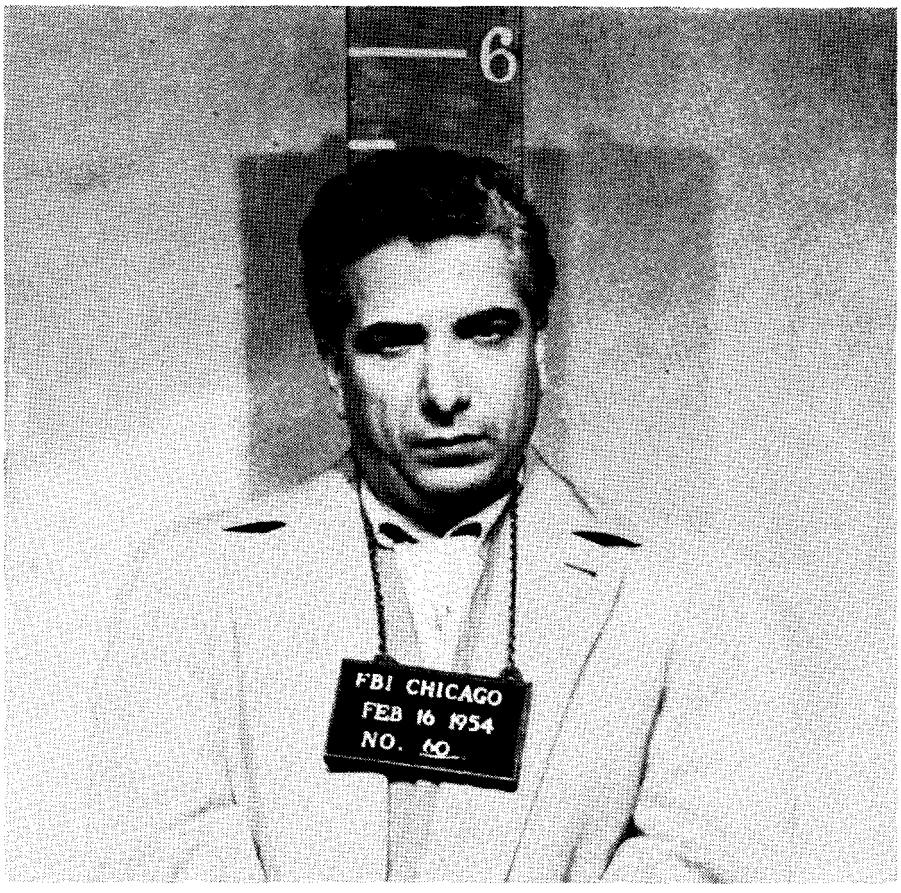
Maybe Chicago has been cleaned up, but somebody forgot to tell the hoodlums. There's so much action going on in the Windy City that I "made" the Zerk case, one of the biggest in my undercover career, wholly by accident. It was like the big-game hunter who shoots at a jackal and brings down a bull elephant.

I went out to Chicago in 1954 to hunt some stolen West Coast furs, and came up with a fabulous fortune in *objets d'art*. I wasn't looking for them. I didn't even know they'd been stolen. I just stumbled onto them.

It's funny, looking back at it. But there wasn't anything humorous about it at the time. Because when I stumbled onto the art treasures, I came up face to face with another surprise—the No. 1 man on the FBI's most-wanted list.

He had a .45 automatic. I had a ball-point pen.

Chicago, Chicago, that toddling town. . . The people who tell you how it has reformed either haven't been there or they don't know where to look. There's a quiet, expensive restaurant in the Loop where you can meet half of the stars of the Kefauver crime report almost any afternoon. They're usually huddled with some of the big political bosses. One of the biggest fences in the world, "Fish" Johnson, operated in Chicago for years without the "locals" ever making a move against him. He could fix you up with anything from a wristwatch to a freight-car load of steel pipe or a truckload of television sets. If he didn't have what you wanted, he'd get it for you. He had scores of shoplifters and warehouse-boosters working for him all over the country. He did a wholesale business bigger than a lot of legitimate wholesalers, and ran a retail outlet that had a better turnover than some department stores.



Americo De Pietto, one of the three armed men who invaded Oscar U. Zerk's Kenosha, Wis. home and relieved the wealthy inventor of his fabulous art collection.

Yet it took the FBI to put him out of business—but that's another story.

The winter I stumbled into the Zerk case, I'd come to Chicago following the thin trail of some high-priced minks that had vanished from Beverly Hills. I nosed around town for a week or so and kept hearing about a fast-action guy named Moe who ran a bar and gambling joint for the syndicate out in Cicero, the old headquarters of Capone. Moe was a man with connections. There wasn't any evidence that he knew anything about the West Coast loot, but on the other hand he was just the kind of fellow who *might* know something.

You don't find things out if you sit on your divan and count your fingers. So I went out to Cicero, drank in his bar and made like a man with larceny in his heart. In a few days Moe and I had our heads together.

Moe had loot running out of his ears, including a hundred fur coats. But the furs were the wrong ones: they had been lifted from a Chicago cleaning plant. I tucked this information away in the corner of my mind, and we "made" that case later. But this time I kept pushing him off, hoping he'd come up with the Beverly Hills minks.

One night he climbed on the stool beside me and said he'd been talking to the "big boys" that afternoon. They had an off-beat proposition, Moe said. Would I be interested in a really big collection of art objects—jade, silver, stuff like that?

I'd been working my imagination overtime, pushing off Moe's offers, and I was afraid that he might drop me. Besides, his story sounded interesting, so I nibbled.

I told him what he knew already, that goods like that were tricky to handle and had a very limited market.

"Yeah" said Moe, "but this stuff is worth maybe two hundred big bills, and you can pick it up dirt cheap. Maybe one-tenth—about twenty grand."

The size of the loot straightened me up on my stool. What kind of stuff was floating around Cicero that was worth $200,000?

"I dunno, Moe," I said. "Art junk is out of my line. But tell you what—I'll call a couple of contacts and let you know."

The next day I went down to the FBI office to see if they had anything that might measure up to $200,000. Maybe a report on a museum robbery . . .?

They had one new listing that looked good. Only a week or so before, on February 8, a wealthy, retired inventor named Oscar U. Zerk had been robbed up in Kenosha, Wisconsin. Three armed men had broken into his luxurious home, put a gun on him and demanded that he unlock his safe and empty out the cash. Zerk told them that he had only a couple of thousand in the house, but they didn't believe him. They knocked him around, but he stuck to his story, which was true. Zerk had made a fortune from his invention of the automobile grease gun and owned a fabulous collection of art objects. The hoods ransacked his house and when they couldn't find any more cash they bundled up the collection and took that. The FBI report noted that the collection didn't carry a dime's worth of insurance.

I went back to Cicero to learn more. I played pessimist with Moe, fishing for some details, and let him try to sell me. I told him I had a little interest from one party, but the stuff would have to be genuine and the price low.

"You better talk to the boys themselves," Moe said. He made a telephone call and moved me right in with two of the hoods who had pulled the job.

Their names were Americo De Pietto and Cowboy Mirro. I met them in Mirro's bar. They were a couple of lovely gorillas. De Pietto looked like a walking Mack truck, with an oddly lopsided face that carried a big scar on the right cheek. He had a record as long as his arm—and he had long arms. Mirro was a bulb-nosed hulk with a perpetual scowl.

I sat between them at Mirro's bar, feeling like a grain of wheat bucking a couple of millstones. They both drank steadily, and I hoisted right with them.

Liquor is the great ally of the undercover man. It dissolves the walls that men build around their secrets, lulls their suspicions, and dulls their cunning. I, myself, have an odd reaction to liquor. When I'm working a case I'm constantly keyed up and can drink large amounts with little effect. I have yet to find a man who can drink me down when I'm working a job and my life hangs on the clarity on my mind. Yet when I reach safety—my home, my hotel room—a reaction sets in and the liquor hits me with full force. And if I'm home, relaxing with my family and watching television, two highballs will have me dozing.

I have never tried that trick often shown in movies, where the sleuth slyly dumps his drinks in a potted plant. The joints where I find myself never seem to have potted plants.

I moved cautiously with De Pietto and Mirro. One slip, a wrong word, and you could have bought my chances with a canceled two-cent stamp. They were in their home territory where they knew every hood and killer, and my nearest friend was in the FBI office—30 miles away.

The first thing was to determine whether their loot was the Zerk collection. I wanted details that I could check against the description I'd gotten from the FBI. So I went into reverse—instead of growing inquisitive, I played reluctant. I kept running down the deal—and let human nature take its course.

To warm me up, the two hoods launched into a glowing description of their swag. There was a big, engraved, ivory tusk, this long. A curved sword, real old. A revolving silver stand for food: "so big it about busts your back to lift it!"

Each of these three pieces matched items from the Zerk collection.

"Look, why gab about the stuff?" Mirro finally said. "We'll take you to see it and you can judge for yourself."

But instead of leaping at the opening, I immediately objected to Mirro's proposal.

"What good is it gonna do for me to look at it?" I asked. "I don't know no

[*Continued on page* 20]

Sports Car—Family Size!

If your heart lifts to the rakish lines and dashing "go" of a well-tuned sports car—but your family needs demand abundant comfort and room—Pontiac is tailor-made for you! This low-swung beauty with blazing Strato-Streak power and cream-smooth Strato-Flight Hydra-Matic* packs a punch like nothing else in your experience. Yet in length and spaciousness it's about as big as they come! Try it for size—and America's peak performance thrill—today!

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THE CAR SAYS "GO" AND THE PRICE WON'T STOP YOU — Pontiac's three great lines, with up to 227 horsepower, completely encompass every requirement from peak luxury to low price. You can actually buy a big, glamorous Pontiac for less than 44 models of the "low-priced three"!

**An extra-cost option.*

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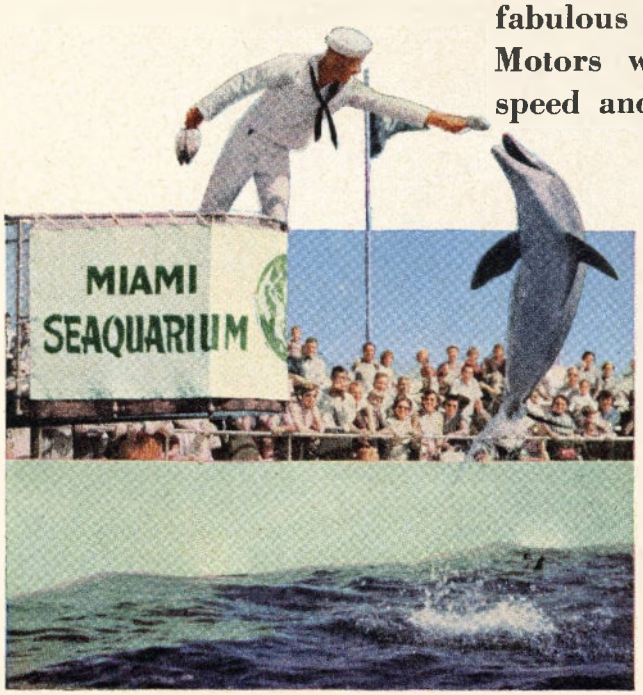
A 13-foot hammerhead shark "plays possum" in the 2,000-gallon live-box of the Seaquarium barge. This 22-ton, 42-foot sea-going scow is powered by two Wizard Powermatic 12 h.p. outboards—mounted in wells amidship—with long-range tanks and remote controls. By operating the motors independently the barge can even go sideways. It cruises out as far as the Bahamas.

"Walking a shark". Sharks are kept alive by forced movement for several hours until they regain their confidence, get used to new home.

Capt. Bill Gray, former member of the Vanderbilt South Seas Expeditions and world-famous sea hunter, starts his easy-starting Wizard "5".

Deep Sea Hunting with Capt. Bill Gray

On "bring-'em-back-alive" expeditions to stock the fabulous new Miami Seaquarium, Wizard Outboard Motors were chosen over all others for power, speed and dependability on high seas . . .



With a 12-foot leap for a morsel of mullet this friendly porpoise soars out of the 615,000-gallon main tank to thrill spectators at each of the 6 daily Seaquarium shows. On Virginia Key in Biscayne Bay, this fabulous marine-life exhibit is only 15 minutes from downtown Miami . . . a key attraction for Florida visitors.

FROM Bimini and the blue Gulf Stream to the green waters of sunken reefs off the Florida Keys lie the hunting grounds of a strange fleet of Wizard-powered boats—craft of the deep sea hunters who stock the great exhibition tanks of Miami's multi-million dollar Seaquarium.

Never was there such a constant work-a-day test for a fleet of outboard motors . . . pushing 22-ton "live-box" barges in heavy seas . . . high-speed marathon runs toward "schools" spotted by helicopters down the coast . . . trolling for sailfish and marlin . . . off-shore still-fishing for shark, manta ray and other "heavies" . . . or nimble skirting of reefs, shallows, sand-and-coral beds in light boats to skin-dive for moray eels, starfish, anemones and octopi. It's grueling adventure for both men and outboards.

Here—where life and death may hang on an outboard's ability to start instantly (and every time), to take constant punishment from heavy loads in heavy seas, to race at top speed hour after hour—Wizard outboards were chosen exclusively after tests and trials for dependability and performance.

The versatile Wizard line—5's, 10's, 12's and 25's—lends itself just as readily to the pleasure boats of over 100,000 sportsmen who enjoy the famous "out-performance" characteristics of the superb Wizard. Try a Wizard and see for yourself!

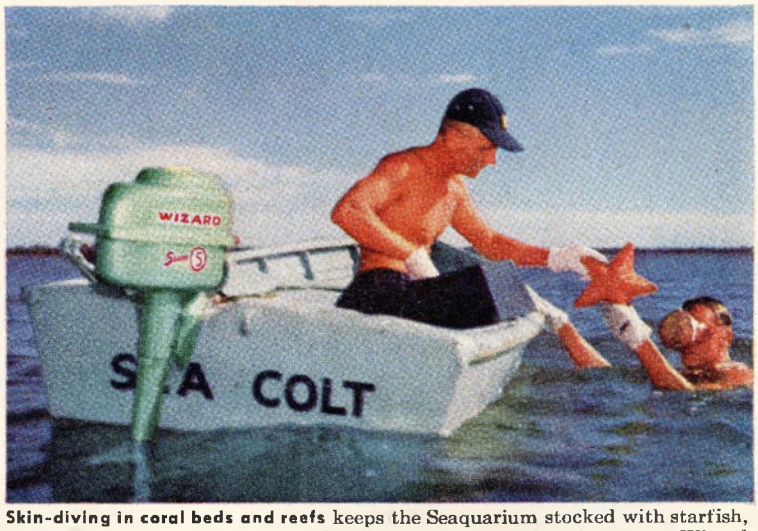
Boating a leopard ray caught in the 1800-yard trawl net. Note the unusual mounting of the Wizard "12" in a well at the bow—leaving a clean stern for playing out the huge net.

Navy helicopter gives a friendly dip astern, as Seaquarium's "scouting" boat races down Biscayne Bay, powered by a pair of 4-cyl. 25 h.p. Wizards.

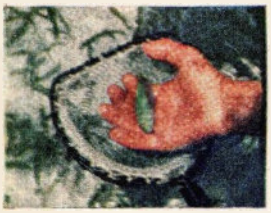
A wild variety of colorful, little fish are caught by hand nets from small boats powered by Wizard "5's" . . . for picture-window gallery exhibits.

Can you find the diver as he hand-feeds the fish? One diver recently was severely bitten on the hand by a hungry and inquisitive 1000-lb. sea turtle.

Harnessing a 400-lb. loggerhead turtle for transfer from Wizard-powered boat to Wizard-powered barge. In trials, no other motor equaled Wizard's flashing speeds, heavy-duty power, and long-range trouble-free dependability.



Skin-diving in coral beds and reefs keeps the Seaquarium stocked with starfish, crustacea and miscellaneous life. Small diving and trawling boats use Wizard "5's" for quick maneuverability, excellent speed and long range. (It's one of America's top fishing motors, too—light-weight and with push-button controls!)



$3000 a pound! That's the value of tiny Jewel Fish—rare specimens tracked by Wizards in the Bahamas.

See Herman Hickman, famous sportscaster, in new ½ hr. 16 mm. color movie "Sea Chasers" . . . free to clubs and sports groups. Write Western Auto Supply Co., KC. Mo. Dept. 304.

You, too, can own a Wizard—*proved better* by professionals and over 100,000 sportsmen coast-to-coast. *Trade-in* your old outboard, and get a new Wizard on *easy terms*. See the big display of fine Wizard Outboard Motors at your nearest Western Auto store. For FREE folder, mail card to Western Auto Supply Co., Kansas City, Mo., Dept. 304.

Wizard Fishing "5" . . . **$189.50**
Wizard Super "10" . . . **$239.50**
Wizard Powermatic "12" **$299.50**
Wizard 4-in-line "25" . . **$425.00**
"25" with electric starter **$515.00**
ALL PRICES F.O.B. MILWAUKEE.

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[*Continued from page* 16]

more about this crap than you do. I can't tell if it's worth two grand or thirty."

That stymied the deal. "That's the trouble with stuff like this," Mirro growled angrily. "We heist it because we figure we can make a deal with the insurance company, but the bastard didn't carry any insurance."

They sat glaring at their drinks. Then I gave them a twist that I'd had in my mind.

"Look, I got a guy in the East who knows stuff like this." I told them. "I've used him before and we don't gotta worry about him. I can bring him out and let him tell me what it's worth. If you like the figure, we make a deal and everybody comes out all right."

Mirro and De Pietto looked at each other questioningly. "It's all right with me," De Pietto said. "Sure," said Mirro, "if you say he's all right."

"Okay. I get in touch with him," I said. "If he can come, it takes maybe a couple days."

I checked back in with the FBI and told them I had opened the door for an agent to enter the case. They looked the thing over from every angle and okayed the plan. A veteran agent, with whom I had worked before, was assigned to play the part of my art expert. I felt good about their choice. I knew Joe, the agent, as a man of great courage and a quick mind.

I laid the cards on the table for him. We were going into a very rough setup. What made it bad was that I felt we had to go on the trip "clean"—no guns or identification. An FBI agent does not lightly strip himself of his badge; given a choice he will usually prefer to yield his gun. The badge is a powerful protection for even an unarmed agent. The reputation of the FBI for avenging its men is such that the hottest hood will think more than once before gunning an agent.

So what I asked was a big thing.

"So far they trust me, Joe," I told him. "But all they know about me is that Moe put me in with them. They may let it ride or they may check back with Moe. If they do, Moe is going to tell them I was sent out by a guy in Chicago. If they go back to *him*, he'll say I came out of nowhere. They may start thinking, and decide to shake us down before they take us to the Zerk loot. If you have a gun or your badge on you, we're done."

Joe whistled softly, and looked at me thoughtfully. "How do you feel yourself?" he asked.

"Nervous," I said, "but so far it goes well."

He grinned. "We might as well both be nervous," he said. "We'll go clean."

Moments like this do not occur often in a lifetime. That instant of decision, when he staked his life on my judgment, will stay with me as long as I live.

The next day we went unarmed to Cicero.

Mirro appeared to accept Joe without suspicion. We climbed into Mirro's car and he twisted around town for half an hour, watching the traffic behind him. Then he drove to nearby Melrose Park, and pulled up in front of a plumbing shop in a new building at 1827 North 25th Avenue. We piled out and walked over to the building. It was Sunday and the shop was closed. The street was deserted.

Mirro rang a bell. "We got a good man guarding the stuff," he said.

A sullen-looking thug of about 30 opened the door.

"These are the two guys I told you about," Mirro said.

"C'mawn in and close the damn doah," the guard said.

I got a good look at him. He had a wedge-shaped face, high forehead and a sullen mouth. He looked awfully familiar, and his Dixieland accent tugged at something in my memory.

Mirro led us to the back of the plumbing shop and pointed to a big cardboard carton. "That's part of it," he said. "Give me a hand and we'll take it upstairs. The rest of the stuff's up there."

We lugged the carton up to an unfurnished apartment. There, spread out on the floor, was the Zerk collection. We added the contents of the carton and stepped back to survey it.

It was an astounding array—Ming vases, dozens of pieces of beautiful jade, ancient filigreed silver, items that a museum would wreck its budget to acquire.

Joe went into his act as an art expert. He did a terrific job. He'd examine a piece, gaze thoughtfully at the ceiling, jot down a figure and move on to another item. He'd pick up a piece of silver, look it over, murmur, "Seventeenth century," and nod wisely. Actually, he didn't know a genuine Cellini from a galvanized bucket, but neither did his audience.

The stuff was jumbled on the floor and I got an idea for locking down our case. "Let's straighten this junk out so the man can get at it," I told Mirro and his companion. I started handing them some of the big pieces to move.

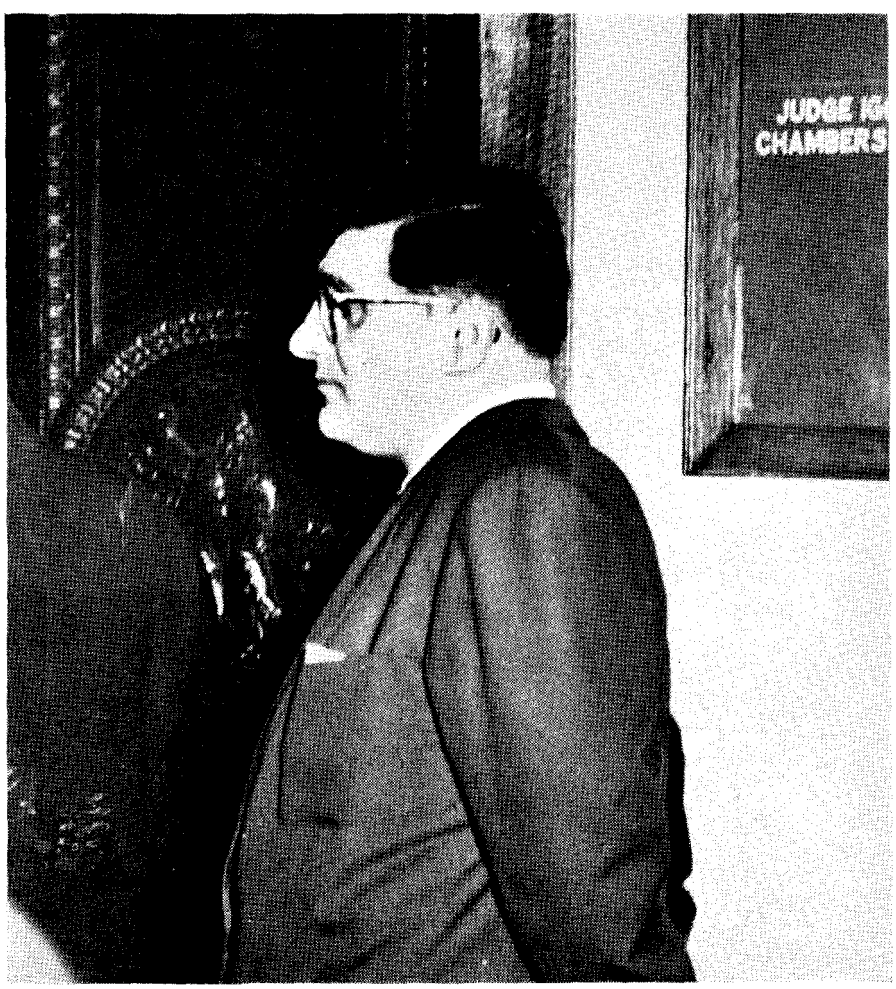
They were both barehanded and they put their fingerprints all over the stuff.

While they were busy working, I stepped back and took a good look at the man who had let us in. As he leaned forward to pick up a heavy piece of ivory, I saw the butt of a .45 automatic sticking in his belt under his coat.

He straightened up in profile and then turned full-face toward me. All of a sudden it hit me, and the alarm bells started jangling inside.

It was Nick Montos.

Nick Montos was the current Public Enemy No. 1. He headed the most-wanted list of the FBI; there had been "readers" out on him for months. He was a Dixie-born Greek with a long record as a safe-cracker and burglar, and his case was flagged "dangerous." He faced a long stretch if captured, and law officers



Cowboy Mirro, who had a record longer than the bar he ran in Cicero, Ill. When he wasn't behind the bar—or bars—he tried picking up a dollar behind a gun.

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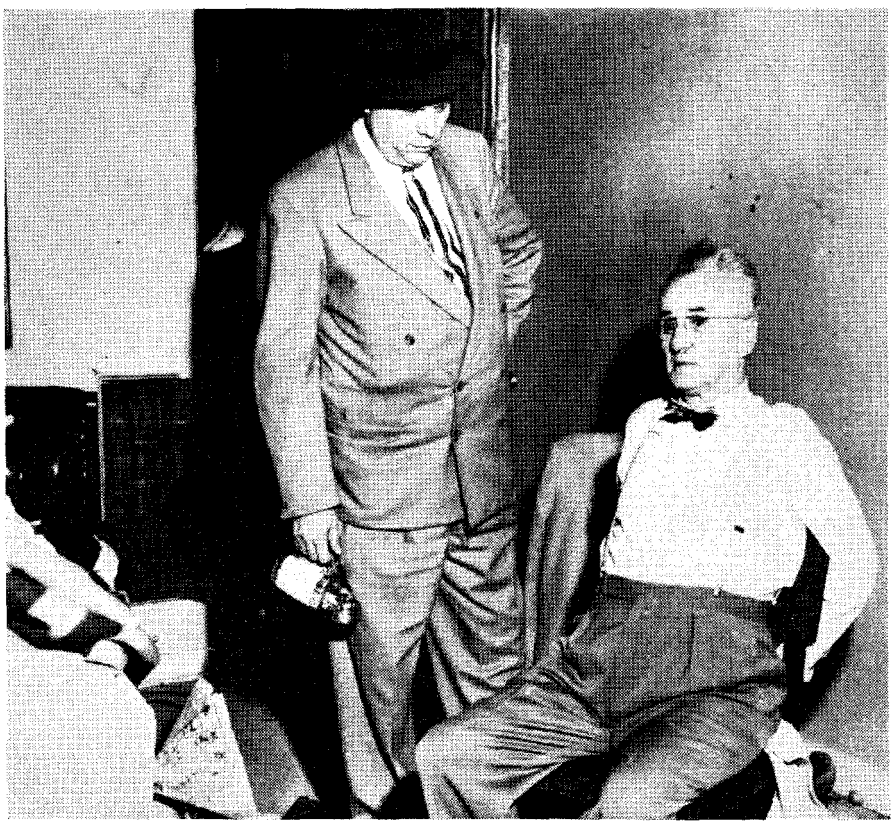

Oscar Zerk, internationally known collector of objets d'art, demonstrates to Kenosha Sheriff Schmidt how the bandits tied him to a chair during the robbery.

had been warned to use the utmost care if they encountered him.

And there we stood, with our ballpoint pens.

I shifted my gaze to Joe. He looked at me, glanced almost imperceptibly toward Montos, and raised his eyebrows. I knew he had "made" Montos, too. He went on with his appraisal with superb self-control, taking his time, muttering to himself and conferring now and then with me.

Joe finished jotting down his figures and Mirro immediately began pushing me for my price.

"Take it easy, Cowboy," I said. "Give me time to breathe. I gotta talk with my man here. We're gonna figure something fair to everybody—and that includes me."

Something was wrong, though. Montos was restless and jumpy. Whenever a car passed, he moved quickly to the window and peered down the street. Between trips to the window he stood silently watching us, gnawing on his lower lip.

Cowboy reluctantly agreed to give us a few hours for a private conference, and we agreed to meet again at 4 o'clock. Montos silently took us down and let us out. Mirro drove us back to Cicero. He flagged a cab for us, and we told him we'd see him in a few hours.

We gave the cabbie a hotel name in Chicago. On the way in, we sat in the back going through the motions of appraising the loot. For all we knew, the hackie might have been planted by Mirro to check on us. We paid him off at the hotel, watched him out of sight and then raced to the FBI office.

The news that Montos was holed up with the Zerk collection created a sensation. The Zerk case itself was big, but the prospect of scooping up the No. 1 hoodlum at the same time set the wires to Washington buzzing.

At first there was some skepticism over our news. There hadn't been the faintest rumble about Montos around Chicago, and he had no known connections with any Cicero hoods. Joe and I told them to spread out a dozen or more mug shots and to put Montos' in with them. We took turns and both promptly flipped out Montos' picture.

The office hummed with urgent talk. We had only a little time before we were due back in Cicero, and if we didn't show up it would pull the plug on the whole case. Plans were made and discarded. A "stakeout" of the area was hastily organized. I looked at my watch and there was just barely enough time to make it out to Mirro's bar.

"I better go back," I told the agent in charge. "We gotta keep them cooled off."

"I'll go along," Joe said. "If anything happens, we'll be two against two." Joe and I proposed that we go armed, play out the part until we got in the apartment, and then take Mirro and Montos ourselves.

"Montos has his gun in his belt and we can get the jump on him," Joe said. "I don't care how tough he is—he isn't going to try to draw with a gun in his back."

The idea was vetoed. The FBI takes great care to safeguard its men and the plan was ruled out as too risky. It was finally agreed that we would set up a payoff for the loot immediately. We arranged a series of signals for the staked-out agents. If Montos and the loot were still inside, we'd give a sign when we left the shop in Melrose Park and agents would hit the place from all sides.

Over the years I have become accustomed to tension, but going back to Melrose Park the second time was hard. We made it to Mirro's right on the dot. He was waiting, edgy and anxious to finish the deal. While he drove us to Melrose Park, we settled the details. I offered $15,000 for the whole collection and Mirro snapped at it.

We went up to the shop and Mirro rang the bell. We stood there and waited and nothing happened. The early winter night was falling, the shop inside was gloomy and silent.

Mirro swore and rang again. "I guess he musta gone out for grub," he said, and let himself in with a key.

We went up the dark stairs to the apartment. We both hung back and let Mirro go ahead. When we got upstairs, Mirro called softly for Montos. There was no answer. The apartment was empty—except for the Zerk loot.

Mirro was upset by Montos' disappearance. We talked about how we would move the stuff out, but his heart wasn't in it. We decided to take part of it by carton, crate the bigger pieces and move them by truck. When we were all done, I told Mirro that we'd see him at 11 a.m. the following day.

"Okay," he said absent-mindedly. "I wonder where that guy went?"

I wondered, too.

We went down while Mirro locked up. When we got out on the sidewalk, Joe stopped and pulled out a cigarette and asked me for a light. We had a signal arranged to tip the agents if Montos wasn't there. I took out a Zippo lighter and flipped a light. I had pulled up the wick, and in the winter dark it burned like a railroad flare.

The waiting agents caught the sign and held off. They waited until after midnight, but Montos never did show up. At 1 a.m. they figured that he wasn't going to, so they moved in on the shop. The Zerk collection—all $150,000 of it—was lying there unguarded in the empty building. It was recovered just three weeks to the day after the three hoodlums had stolen it in Wisconsin.

Mirro and De Pietto were rounded up and both copped a plea. It developed that Montos simply had got a bad case of nerves and had lammed. There wasn't anything wrong with our act; he had just bolted under the tension. He didn't get very far. A few days later he was picked up when a freight train ran interference on him and boxed him in at a railroad crossing.

He copped a plea, too, when confronted with his fingerprints all over the Zerk pieces.

The Zerk collection went back to Kenosha. Joe went his way on another case. I went home, where my wife looked at me oddly and said, "Lafitte, you look a little older."

The next morning, while shaving, I examined myself in the mirror. I found that, as usual, she was right.

—Pierre Lafitte & James Phelan

Man to Man Answers

[*Continued from page* 12]

Q: A friend says pressure will keep an iron ship from sinking to the bottom of an ocean five miles deep. I say it will not. Which? ***Garnet Martin, London, Ontario, Canada.***

A: We have answered this question several times but it keeps cropping up so often we'd better do it again. Pressure in very deep oceans is terrific and amateur scientists assume it is great enough to overcome gravity and hold even a chunk of lead from going to the bottom. What they fail to consider is that this pressure is equal in all directions. At sea level we live a lifetime with a pressure of about 14.7 pounds per square inch all over our bodies, but we do not feel it because the pressure is equal everywhere, and outward as well as inward. A steel ship will sink to the bottom because the water's pressure is equal in all directions and gravitation acts in the normal manner.

Q: It is generally accepted here that after four minutes a man falling into Lake Superior will be too numb to keep afloat. How long would he survive with a life preserver? ***Ramon Henkel, Sault Sainte Marie, Mich.***

A: This is rather difficult to answer since we can find no figures on the subject, nor have tests been made. Lake Superior is notoriously cold. Its maximum depth is 1,290 feet and once it was reported that no body of a drowned man had ever been recovered. The cold prevents decomposition and formation of gases which ordinarily lift a body in warmer waters. Also, we have the personal equation—the matter of a man's health, protecting layers of fat and the will to live. In Pacific waters off Cape Flattery, Washington, fishermen say a man with a life preserver cannot last more than 20 minutes. The temperature is about 54 degrees. After a heavy wind, the temperature of Superior's surface would be lower than after a long calm.

Q: Did overland stagecoaches use four or six horses and what was the hitch? ***L. E. Mason, Elmira, N. Y.***

A: The stagecoach was common in New England long before it was introduced in the West. John Butterfield, who made a fortune transporting passengers and express in New York State, organized and ran the first real overland stage route from St. Louis to San Francisco. The road was 2,800 miles long, went south across Texas, dipped into Mexico and turned north in California to the terminus. Coaches usually covered the route in 23 days and often faster, the stages leaving each end daily and never stopping. Butterfield started with 250 Concord stagecoaches, common in New England, and later he also used a lower coach, the "celerity wagon," for the rougher roads. Horses were changed

[*Continued on page* 58]

The '56 Chevrolet

It looks high priced—but it's the new Chevrolet "Two-Ten" 4-Door Sedan.

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True, lots of cars are high powered today, but the difference is in the way Chevrolet *handles* its power. It's rock-steady on the road . . . clings to curves like part of the pavement. That's *stability*—a matter of build and balance that helps make Chevrolet one of the few great road cars!

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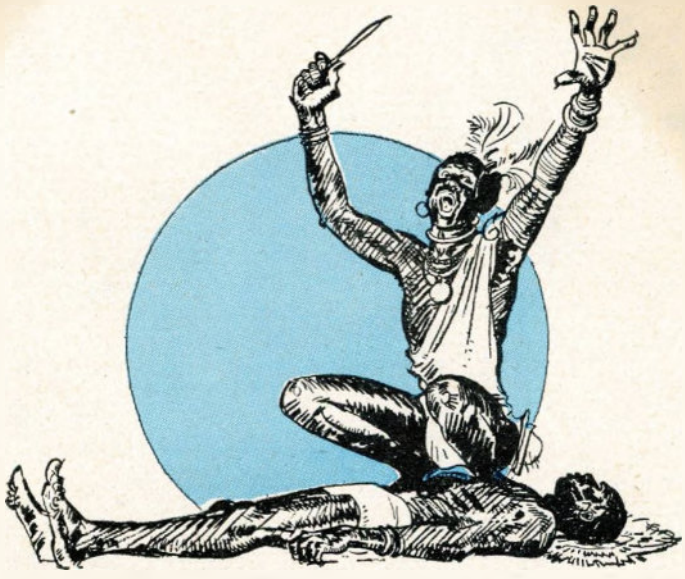


TEST OF A MAN

When the ritual knife slashed into his forehead, Juda screamed, and was branded coward. Now, he had to prove himself—or die

BY SANDY SANDERSON

Illustrated by WARREN BAUMGARTNER

AFRICA

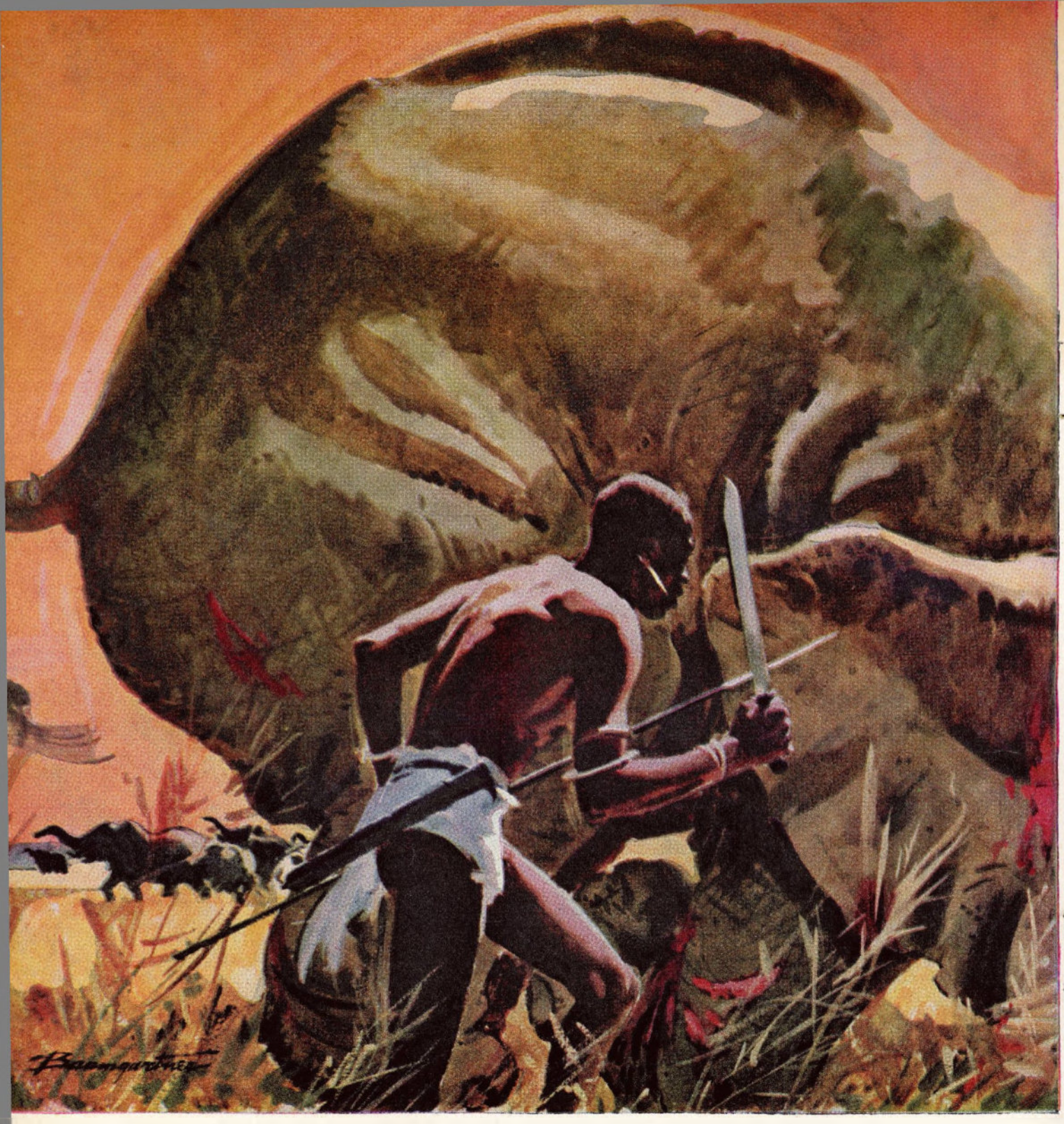
A thin young African lies in the tall, withered yellow grass. His name is Juda. Armed with only a slender 4½-foot spear, he watches a herd of elephants feeding 30 yards away. Within five minutes or an hour or two hours, depending upon the movements of the herd, he will leap to his feet shouting "*kane nyieny*—I am fighting!" He will rush toward the huge bull elephant, knowing he must thrust his spear into a spot on the elephant's head no bigger than a man's fist, and knowing that if he misses, he will die. Juda also knows that he cannot avoid this fight, nor can he turn and run, once he is in it. Ordinarily it would be no disgrace for a Nuer tribesman to run from a wounded, killer elephant. But Juda, who lies in this hot noon near the restless herd, is no ordinary man. He is only 17 years old and he is an outcast. And this is his last chance.

It was only by coincidence that I happened to intrude on this curious and very real drama, just as it was building to its climax. I had been heading up the White Nile toward Uganda and Kenya, and had arrived at the end of one steamship line where I had to wait for the connecting Uganda steamer. The transfer point I had now reached was roughly 1,000 miles south of Khartoum, 500 miles west of Addis Ababa, and thousands of miles east of nothing. This part of the Anglo-Egyptian Sudan is probably one of the most isolated and primitive areas on earth.

Time runs very slowly in the heart of Africa, and the local British district commissioner said it might be several weeks before the Uganda stern-wheeler pulled in. He was friendly, though, and the country was old and easygoing and untouched, so I was comfortable enough. But, with all this other-worldliness, I sensed that something was in the air.

The commissioner's name is George Martin-Jones. He looks like the typical Britisher: stocky, ruddy-faced, mustached and good-natured. He's a Cambridge graduate, and has been a district commissioner in the Sudan for over 15 years. For the last five years he has been law-giver, sheriff and sort of political Svengali to the Nuer tribe, one of the Nilotic group of very tall (6 feet 6 is not unusual), very thin and very virile cattle-keeping people. George claims there are no braver men in Africa. But, while he likes and admires them, he admits that his job of keeping them in a reasonable state of peace is never easy.

In order to keep an eye on the tribe he

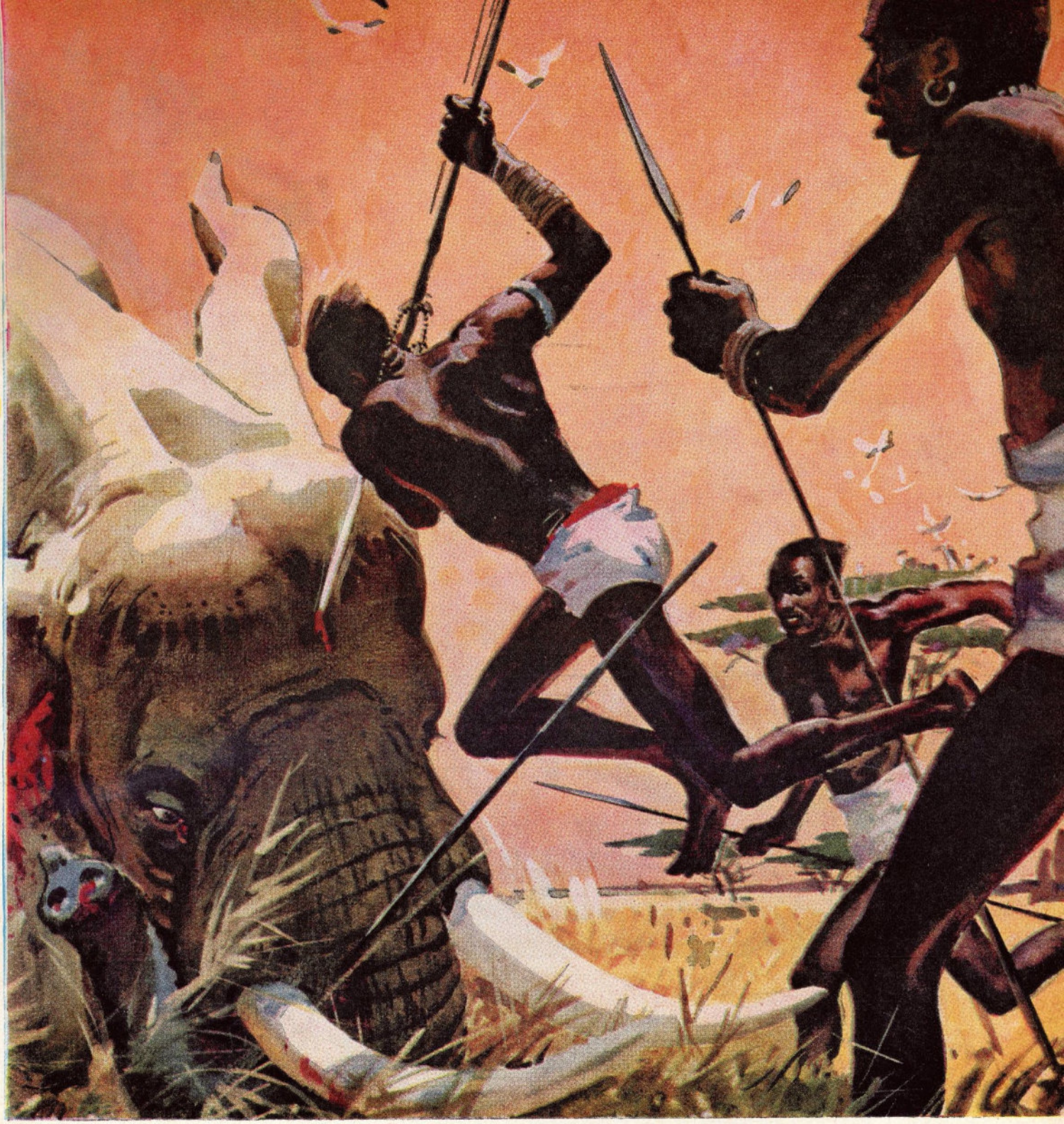


spends a good deal of his time "on trek," traveling about through the huge area he administers. "I'll only be gone about five days this time," he said to me one morning. "Why not come along?"

There was no immediate hope for the Uganda steamer, so I agreed. The days of long safaris on foot are over, and George drives a four-wheel-drive Land Rover, a British version of the jeep, followed by a huge truck piled high with camp equipment and a half-dozen *askaris,* or native soldiers, to set it up. With these two vehicles the D.C. can move anywhere through the flat, open grassland and bush, following faint trails or going directly across country, except in the two rainy seasons when the area bordering the Nile becomes a swamp.

The land was parched and dusty as we bumped along from one thatched village to the next, settling disputes, trying an occasional misdemeanor, or just stopping for a talk with a local cattle chief or medicine man. George sensed that the villages were tense and restless and he was worried, though outwardly calm.

On the afternoon of the third day, after George had spent several hours talking to a number of people in one of the



Juda plunged the spear toward a tiny point on the bull's forehead, knowing that if he missed it, he would be killed.

largest Nuer villages, I finally asked him what was going on. "I'm not sure yet," he said, "but something has to happen soon. These people are in a terrific state of tension."

He told me that as recently as 1927 the Nuer staged a full-scale rebellion, seized and tortured their D.C. to death, and opened war against their traditional enemies, the Dinka. For that reason George and his assistant D.C., an educated northern Sudanese, keep track of everything that goes on in the tribe—from cattle trades to marriages to rain-making—and especially anything that touches on politics. The source of the unrest seemed to be political, and George was understandably on edge.

We were finishing breakfast the next morning when the messenger arrived. He was a little man, about 50, who acts as a sort of private ear in the village. He was a pretty weird sight—stark naked and covered with a grayish ash which the Nuer use as a mosquito repellent, and he was plenty excited. He and George talked rapidly in the Nuer dialect for a long time, and then he left and George turned to me and said in a matter-of-fact tone, "Like to take a run into the village?"

"What's up? Any trouble?" [*Continued on page* 99]

This full-scale helicopter mock-up is used for testing flush-mounted radio antennas. *Below:* SRI director Jesse E. Hobson.

Trouble Makers at Work

Testing a 100-ton amphibian, licking a mysterious fog, advertising Joe's restaurant to the insect world—nothing is too tough for SRI's scientific sleuths

BY JOSEPH STOCKER

A Seattle boat-building company had a weighty problem on its hands; almost 100 tons of it, to be exact. The problem went by the name of the BARC, which, in the strange, upside-down lingo of the U.S. Army, stood for "Barge, Amphibious, Resupply, Cargo." The biggest amphibian ever built, it was designed to haul 60 tons of cargo (including a locomotive) from ship to shore and the Army, reasonably enough, wanted to know what would happen if the BARC were picked up by a good-sized wave just as it reached the shore and then slammed down heavily on the beach.

The boat builders were pretty sure their baby could take it, but they couldn't think of any way to lift a hundred tons a couple of feet off the ground and then drop it evenly. So they took the only logical step and called in an outfit which, like the BARC, is known by a set of initials. The initials, familiar to many, are SRI and they stand for Stanford Research Institute.

SRI is a non-profit organization of roughly 1,200 resident geniuses, all long on curiosity, tenacity and brainpower. As an indication of its ability and general acceptance, SRI does over $11 million worth of business a year, over 55 percent of which is *repeat* business. The Institute has its headquarters in a placid little California town named Menlo Park, some 30-odd miles south of San Francisco. Its primary purpose in life is curing the technical problems of industries, particularly western industries, although it has also delved into the headaches of Indians, countries, cities and cartoonists. As the problem of shaking down the BARC came logically under the heading of a headache, the boys from Seattle came to SRI.

It so happened that, in addition to its normal probings into chemistry, physics, engineering and the like, SRI was doing research in controlled explosives. This involves the use of such common explosives as TNT, not for blasting things all to hell, but as a precision tool. With controlled explosives on the brain anyway, SRI hit on this as a means of testing the BARC.

The big amphibious monster was jacked up and placed on steel pins stuck up through four steel columns, one at each corner. Each pin was rigged to contain a small cavity filled with a few ounces of explosive. The idea was to set off the explosives and shatter the pins, thus dropping the BARC down on the columns, while making sure that the pins explode within a fraction of a second of each other.

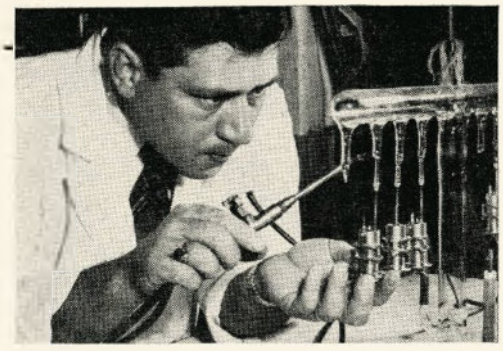
It worked. The four pint-sized blasts went off within a millionth of a second of each other and the BARC bellied down solidly onto the columns. It remained in one piece, delighting both the Army and the manufacturer, and earning SRI a healthy check for services rendered and warm congratulations from all concerned.

This was just one of the thousand-odd projects that SRI has tackled since it set up shop nine years ago. Its experts have turned their brains loose on everything from soup (explosive soup for oil exploration) to fish (finding profitable uses for fish by-products); collecting fees of from a few hundred to a million dollars.

To give you an idea of their range, here are some of the $64,000 questions they've answered. A Los Angeles radio-TV manufacturer was afraid that competition would kill his high sales, and wanted to know what else he could make. SRI experts prowled through his factory, examined the market and came up with the answer—doors for new houses. The manufacturer took the advice and has since reported that the doors are selling very well.

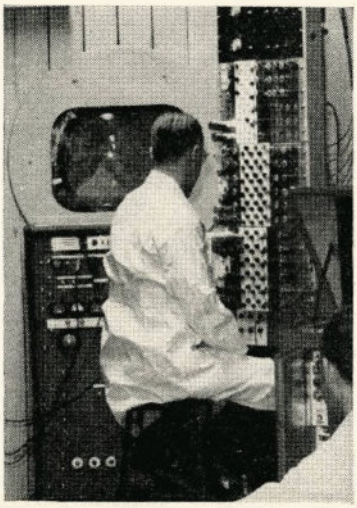
American railroads—and the shippers who use them—have long been bothered by the problem of freight cars colliding as they're maneuvered through marshaling yards. Such collisions, unavoidable and commonplace though they may be, and despite the fact that they occur at slow speeds, cause millions of dollars in damage every year. The cars have a shock absorber of sorts known as a draft gear, but when the cars hit at a speed of over 4 mph, which is a good part of the time, the draft gear "hits bottom" and the shock is absorbed by the car and its contents. So, faced with mounting losses, the Southern Pacific Railroad went to SRI.

The result, obtained after an exhaustive study, is something called a "hydrafriction system." Without going too deeply into hydraulic engineering, this gizmo separates the car from its coupler by a set of metal plates which slide over each other. The tighter they're [*Continued on page* 94]



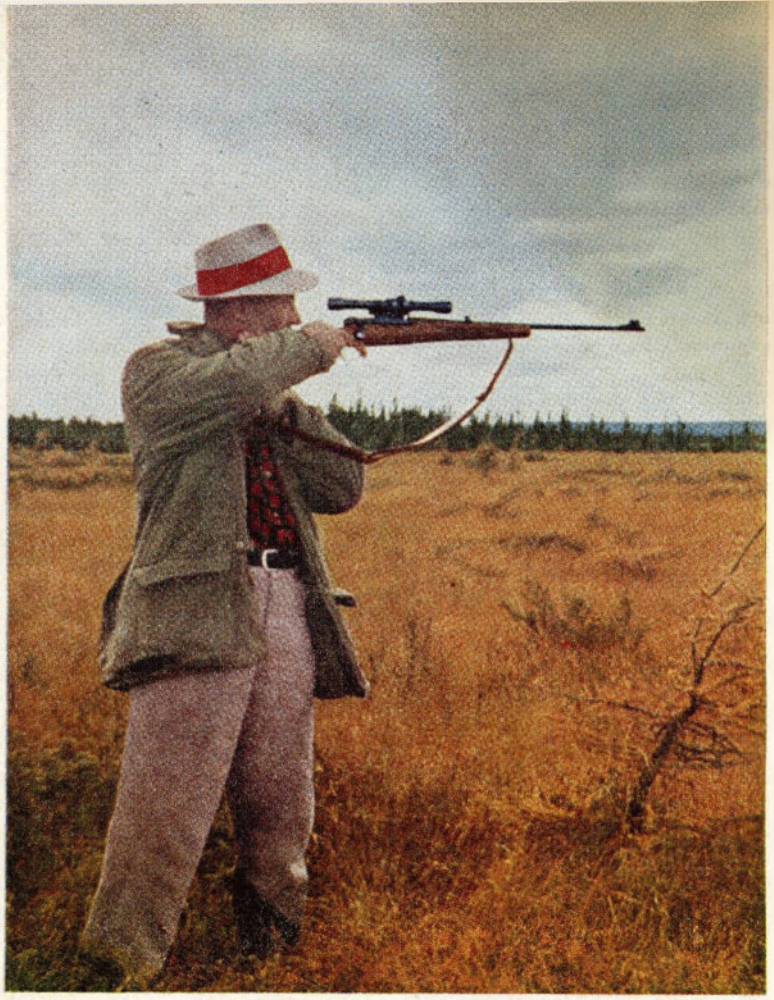
▲Electronics technician seals new and rugged, SRI-designed klystron tube on vacuum pump.

Smog specimens being analyzed ▶ during the round-the-clock studies at Air Pollution Lab.



Testing section of the TV ▶ lab is developing new techniques for color transmission.

Researcher steps out of ▶ 80-below-zero "Little Alaska" cold chamber.



Bogs, barrens, water—the Wall's Pond country from the air. Right, Dan Holland watches game with 'scope.

CARIBOU OR BUST

Being the adventures of two hunters searching Newfoundland's bogs for a trophy stag. What no one had figured on was a big dose of moose-milk weather

Cribbage at Berry Hill Pond: Holland and Don Saunders. Right, lunch in a spruce forest, snug from windy rain.

The first stag, two and a half miles out of camp, stared curiously at hunters from 35 yards, was in no hurry to leave.

By PETER BARRETT

TRUE's Outdoors Editor

A memorable big-game hunt is not just killing the animal, it is a lot of little things. Like moose milk. One stormy evening last fall Dan Holland and I got back to camp really beat. We'd hunted across a dozen miles of bogs and barrens with never a glimpse of a caribou. It had rained and the wind was so strong that you could get a drink of water merely by opening your mouth to the gale. Seals don't get as wet as we were.

We lurched into the cabin and sat down before a bottle of Lemon Hart rum. "Have a good rum for your money," it said on the label. "Proof strength." The stuff is as dark as Newfoundland tea and is described as being Royal Navy Demerara rum. On the back label is a recipe for making moose milk.

"You put it into hot, sweetened milk," I said, reading. "Preferably condensed milk."

"That's a good use for milk," Dan said. "I was wondering what we were going to do with ours."

At the time I didn't know that "proof strength" meant 151 proof, so instead of putting the rum into the milk I put a little milk in the rum. The result was a drink of remarkable smoothness and authority. Moose milk is definitely worth getting wet for.

Dan and I had come to Newfoundland to hunt because it is the last great stronghold of the woodland caribou, which once roamed the northern states in considerable numbers as far south as New York. Hunting pressure and civilization drove this member of the deer family from the U.S. until today there are at most possibly a dozen left. There are probably some in the northern fastnesses of Washington and Idaho, perhaps an odd one or two in Minnesota and Maine. But Newfoundland is uniquely suitable because it has great areas of forest and tundra inaccessible to man except by float-plane; and there are no wolves, ancient enemy of the caribou.

Yet remote as these caribou are, they are oddly handy to the eastern hunter because of the fact that Gander, Newfoundland, is on the great-circle route to Europe. One can catch a Europe-bound plane in New York and be in Gander four hours later. As most outfitters operate out of Gander, they customarily arrange to meet an arriving hunter at the airport and immediately fly him with his guide into the wilderness to a log-cabin camp on a lake. It is thus possible to breakfast in New York and kill a caribou in time for supper; in fact Brett Saunders, who is probably Newfoundland's leading outfitter, told me he knew that it had been done.

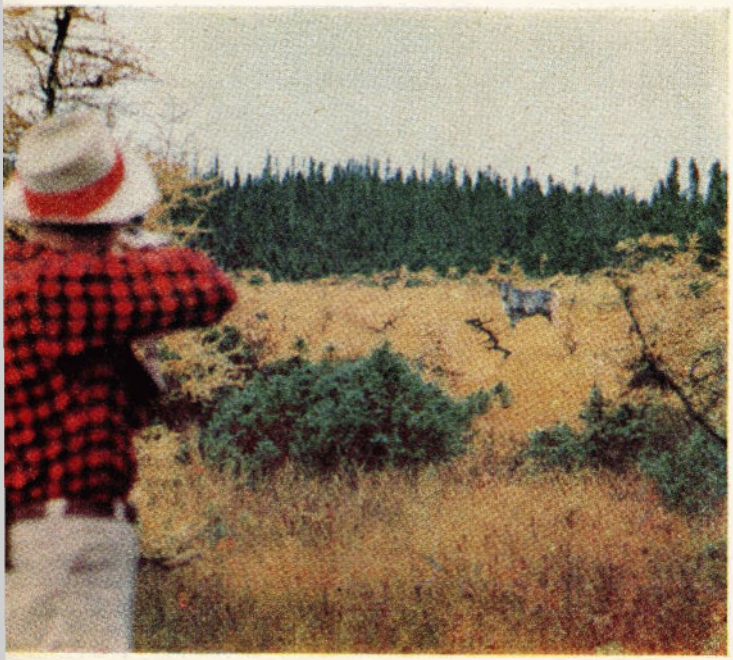
As it turned out, I could have done almost as well.

Two hours out of camp on our first morning, one of our guides turned his back to the wind for a moment and spotted a stag, as the males are pleasantly called in Newfoundland (elsewhere it is "bull"), emerging from a forest.

Photographed for TRUE by the author and DAN HOLLAND

Lindo, Sam and the author beat through country transformed by snow and shown at right the day previous.

Dan Holland takes a pretend sight at the second caribou on the "home bog." It was in no hurry to go.



I caught a glimpse of a brownish-gray creature with a flash of white at its chest, plodding across a big bog toward us. Then we ducked down and scuttled toward the cover of some tamaracks which stood out from a wall of green spruce trees like a yellow peninsula.

Olendo Gillingham—Lindo for short—disappeared to spy. Presently he came hurrying back.

"He hasn't got our wind," said Lindo, who is tall with blue eyes and is not much given to conversation. "I think he'll pass nearby."

Dan and I each got a camera ready and checked our rifles. A light drizzle fell from a gray sky. Beyond us the bog stretched like a lumpy carpet of browns and yellows until it became blurred in the mists. A teal rose from a hidden pond and barely made headway against the wind.

Suddenly the caribou appeared, almost on top of us—so close I could see how the rain had matted his coat. We crouched, frozen. He was a small stag with short, immature antlers. He glanced in our direction but didn't seem to see us. Quite casually, he ambled by.

The last stag, shown with the author after it was shot in the early evening not far from Brett Saunders' Berry Hill camp.

When the caribou had passed from sight because of the cover about us, I sneaked forward for what I thought would be a last look. But the stag had stopped only 40 yards away and as I watched he plucked a bunch of the pale-green lichen called caribou moss from the bog and began to chew it. Dan appeared beside me, then Lindo and Sam Greening, our other guide.

Presently, to see what would happen, we stepped out onto the bog. The stag threw back his head and trotted ever so gracefully a few steps, then turned and walked toward us.

"I'll be damned!" said Dan.

"He's upwind of us now and can't see too well," explained Lindo. "Wave your hand and see what happens."

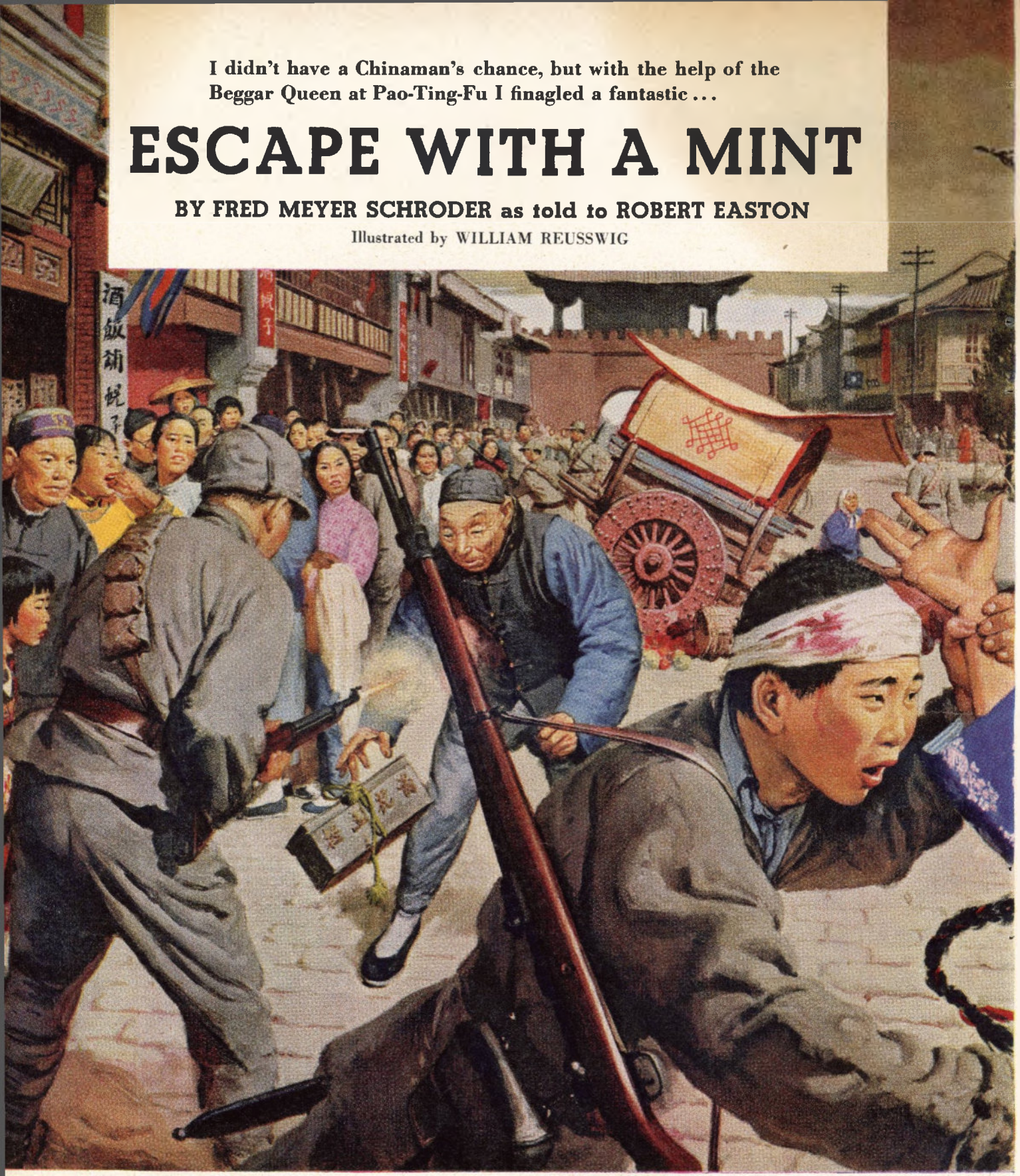
I did so and the caribou came a few steps closer. He was now perhaps 35 yards away and if either of us had wanted to kill him it would have been the easiest shot imaginable. It seemed incredible that any member of the deer family could behave so naively in the presence of man, but Lindo said that stags wandering alone— [*Continued on page* 68]

I didn't have a Chinaman's chance, but with the help of the Beggar Queen at Pao-Ting-Fu I finagled a fantastic . . .

ESCAPE WITH A MINT

BY FRED MEYER SCHRODER as told to ROBERT EASTON

Illustrated by WILLIAM REUSSWIG



I never expected to act as custodian for the contents of a Chinese mint. It was just one of those things that happened. I never expected to perch the Queen of Beggars atop the pile either, but I did.

It was during 1916, when I was a free-lance trader and agent for various firms in China. One of the outfits I worked with then was British-American Tobacco—B.A.T.—which was a great international combine holding concessions in China, Japan and Russia. I did business with B.A.T. for a number of years, first around Shanghai, then near Pao-ting-fu, which is a city south of Peking and not far from the Great Wall of China, and finally at Kalgan on the Outer Wall, the place from which I ran camel caravans into the interior.

One day at Kalgan I got a telegram from J. K. Thomas, operating vice president of B.A.T. in the Far East. The v. p., whose office was in Shanghai, wanted to know if I'd go down to Pao-ting-fu and do a job for him. He didn't say what kind of a job. I knew hell was hopping in that area. Two war lords were fighting for control, law and order

had gone by the board, and everything B.A.T. owned there was in danger. The country is one of the richest in China, and a prize well worth a struggle. I wired Thomas that whatever the job was I'd try to do it, and would get the details in Peking.

When I got off the train in China's ancient capital city I went straight to the B.A.T. office, a one-story brick building on a side street. Actually the B.A.T. setup was a compound, a sort of tiny village in itself, with the office, three or four go-downs, or warehouses, connected with it, a dormitory for Europeans and Americans and their servants, a coolie quarters, dining room, bar and kitchen, all surrounded by a high wall.

From the manager, a pudgy southerner, I learned the story. Fighting had been going on around Pao-ting-fu for some time, and communications in the area had broken down. Consequently, the company's cash income from its sales had accumulated both in the city and with the various Chinese agents in the outlying districts.

"The bulk of the money is [*Continued on page* 78]

Typical Dressen signs to baserunner: Watch pitcher for best time to steal, take a long lead and run on next pitch, slide.

Stealing Signs Is My Business

Any time you can figure out the other guy's next move, you stand a damn good chance of beating his brains out. I ought to know—I've been doing it for over 30 years

by CHUCK DRESSEN as told to AL HIRSHBERG

Photographed for TRUE by DAVID B. EISENDRATH, JR.

Above: **Foot signals usually give orders to batter, telling him to hit, take, hit-and-run, bunt, squeeze, etc.** ***Below:*** **After stealing pitcher's sign, Dressen tips off batter on what to expect (curve, fast ball, knuckle ball, slider, etc.) with hand signals.** ***Bottom:*** **As alerted batter should hit ball solidly, Dressen adjusts cap, tells baserunner to go on next pitch.**

WASHINGTON, D. C.

I want to win this ball game so badly I can taste it. It's the fourth game of the 1952 World Series and my Brooklyn Dodgers have already beaten the New York Yankees twice. If we can do it again, we've got them on the run, because then they'd have to win three straight to take the Series. Yankees or no Yankees that doesn't figure, especially since two of those last three games are in Ebbets Field. This is the big one.

We're playing at Yankee Stadium, and there are over 71,000 customers there, most of them yelling for the Yankees, although we've got a few thousand Flatbush fans out there, too. It's a real tight ball game, with Allie Reynolds pitching for them and Joe Black going for us. Reynolds *is* Reynolds. Black *is finishing his one great* year. He has already beaten the Yankees in the first game of the series, and he is going fine in this one. Up to the fifth inning, he's only given up two hits, but one of them is a home run by Johnny Mize, so the Yankees are leading, 1-0.

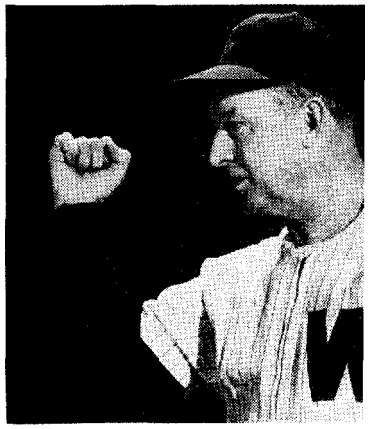
Andy Pafko, our first hitter in the fifth, singles to left. Then Gil Hodges walks and Carl Furillo bunts them along. Now Pafko is on third, Hodges is on second, one man is out and Black, a poor hitter, is at the plate. I am coaching at third base and I give it the full treatment as the big rookie looks at me for a sign. I prowl back and forth in the coach's box, stoop to pick up an imaginary blade of grass, cup my mouth in my hands, pull at my cap, hitch up my trousers, rub my hands together, slap my thighs, kick up dirt, clap my hands, scratch my elbows, pat my uniform shirt, yank at the lobe of one ear and run my hand along my cheek. There isn't a split second when I'm not doing something, and I'm yelling all the time. Somewhere along the line I give the sign for the suicide squeeze. That means Black must—and I mean *must*—bunt the next pitch, because Pafko's going to light out for the plate the minute the ball leaves Reynolds' hand. If Black bunts safely, Pafko scores easily and the game is tied up. If he nicks off a foul, at least Pafko gets back to third. But if Black misses the ball altogether, Pafko's a dead duck at the plate and we all look foolish. That's why we call it the suicide squeeze.

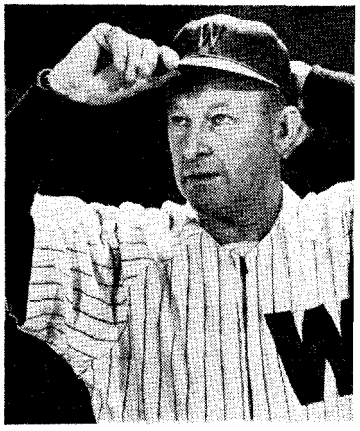
Reynolds stretches, checks the runners, then makes his move. So does Pafko. Andy's off and *running even before* Reynolds has let the ball go. Now, if Black can get his bat on that ball. . . .

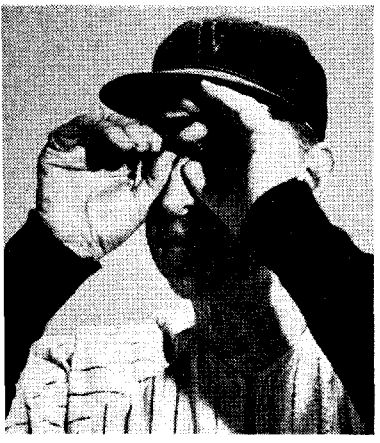
But, before the ball actually leaves Reynolds' hand, Billy Martin, the Yankees' second baseman, suddenly rushes toward the mound screaming, "The squeeze! The squeeze! Watch the squeeze!" My heart drops down to my boots. *That smart kid out there has caught the sign.* All I can hope now is that it's too late for Reynolds to do anything about it. It's a vain hope. Reynolds pitches the ball low and wide. Pafko is rushing toward the plate like an express train and Black is squaring himself to bunt. The pitch comes in and Black lunges at the ball but he can't quite make it. Even as he misses it, Yogi Berra reaches forward, grabs the ball and slaps it on the sliding Pafko. Andy is out a mile and our big chance is gone.

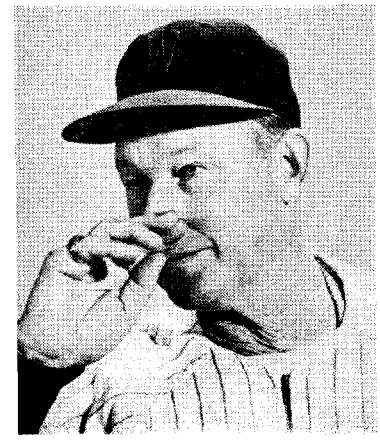
The Yankees went on to win the ball game and, finally, the Series.

That was a case in which I found myself the victim of one of the most vital jobs of sign-stealing in modern baseball history, but I got one little scrap of satisfaction out of it, because I was the guy who taught the trick to Martin. I managed him at Oakland in the Pacific Coast League









in 1949 and, as with all my clubs, I made my boys watch for rival signs every minute of the game. Some fellows can watch and watch and watch and, no matter how hard they try, they'll never see anything. But others, like Martin, can pick up all sorts of information just by keeping their eyes open.

After the 1952 World Series was over, a story went the rounds that Martin stole my sign to Black because he recognized it as one I had used when he was with me at Oakland. I may not be the most brilliant guy in the world, but I'm not that stupid. Martin didn't catch the sign from me, although I didn't find out exactly how he got it until I ran into him again on the West Coast banquet circuit that winter.

"How did you do it?" I asked him. "You sure as hell didn't get that giveaway sign from me."

"No, but I tried," Billy said. "I watched you almost right up to the last minute. But you must have flashed it just as I turned to look at Black. His eyes got as big as two eggs, and I knew the squeeze was on."

That's exactly the kind of thing you have to watch for when you're trying to pilfer the other guy's signs. A little thing like a change of expression practically settled a World Series. And it's little things like that that I spend my life watching for, because the more I know what the other guy is going to do, then the better chance I have to beat his brains out.

There are two ways of stealing signs. One is by actually figuring out who is giving the signals, how he's doing it and what they mean. The other is by catching some giveaway mannerism on the part of one of the ballplayers involved. That's how Martin beat us and that's how most sign-stealers work because it's a lot easier to pick up mannerisms than signs. Signs are given and covered up deliberately, and the player does everything possible to conceal them. But mannerisms are involuntary, and impossible to cover up. The only way to hide a mannerism is to get rid of it.

They tell me I'm maybe the best sign-stealer in the business, and I'm not modest enough to deny that I'm pretty good at it. I learned how before I even reached the major leagues. I was 23 years old, and the guy who taught me was one of the great characters in the baseball business, Mike Kelley, who managed me at St. Paul in 1922.

I was a kid third baseman then, starting my fourth year in organized ball and only my first full year in the American Association. Half-way through the season, I got belted on the knee by a bad-hop ground ball and went on the shelf for a couple of days. The club was in a bad slump at the time and everything we did seemed to be wrong. Kelley was desperate.

When I went out to the ball park the day after I got hurt, he said to me, "Charley, I want you to sit on the bench and watch the ball game."

"Sure, Mike," I replied. "That's what I was going to do."

"I mean *really* watch it."

I wasn't sure exactly *what* he meant, but I found out after Columbus walloped us that afternoon. When the game was over, Kelley asked me, "Did you watch the ball game?"

"Sure did," I said cockily.

"Good. What did you see?"

"Why—uh—everything, I guess."

"Like what?" Mike persisted.

"Well, gee, now that you ask me, Mike, I guess I saw everything everyone else saw."

"Then," he said sharply, "you didn't *really* watch the game, did you?"

I just stood there.

"All right," he said softly. "Now, tomorrow, I want you to try again."

We played Columbus again the next day, and I was still on the bench. Just before the game started, Kelley sat beside me and said, "Now, Charley, I want you to watch the pitcher and see everything he does. The best way to do it is to keep your eyes on the ball almost every second. Watch every motion the pitcher makes, and then watch to see what the ball does after it leaves his hand. Don't let anything distract you. Understand?"

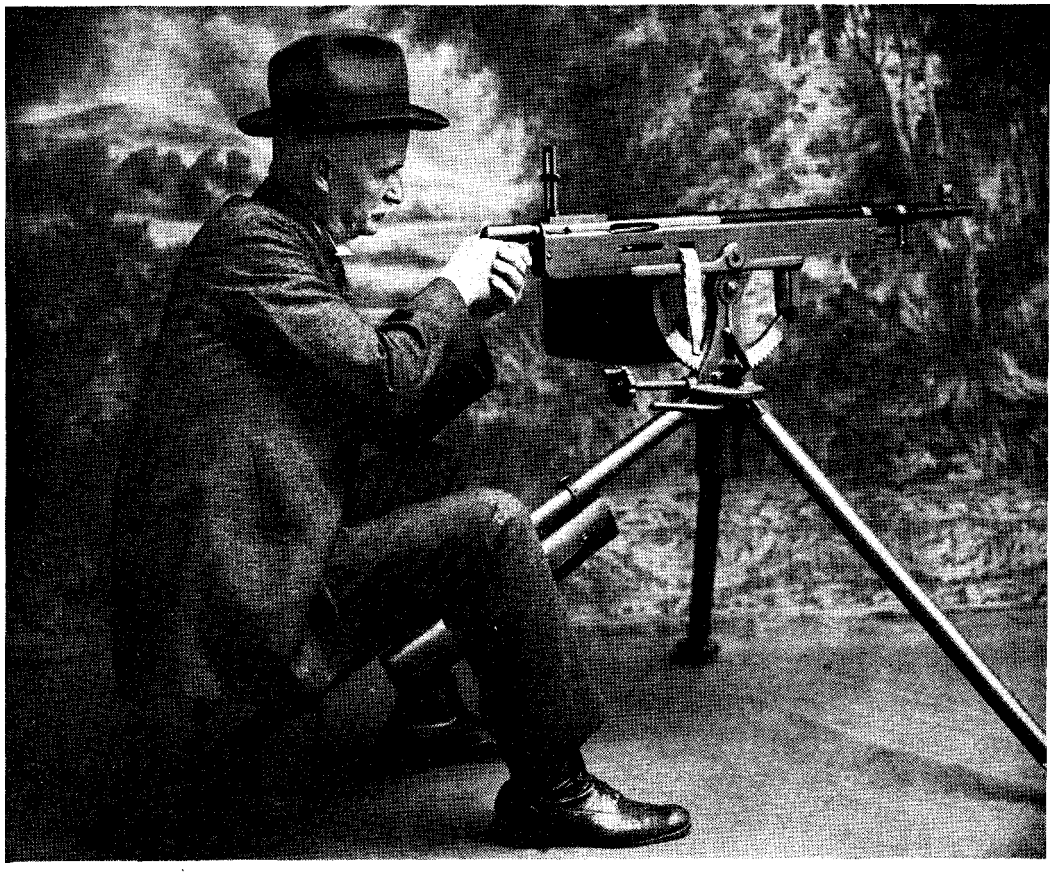
"Okay," I nodded.

The Columbus pitcher was a guy named Jerky Northrop, who had been around for a number of years but, except for a couple of seasons with the Braves, had never gone any higher than Triple A ball. From the moment the game began, I watched every single move he made. I watched his head and his face and his arms and his hands and his fingers and his eyes, but most of all I watched the way he held the ball.

For four innings, he pitched a hell of a ball game—we didn't score and I think we only got one or two hits. I had my eyes on him every minute, but at first I didn't see anything unusual. He had an ordinary wind-up and ordinary pitching characteristics and an ordinary amount of stuff. But I kept looking and half-way through the fifth I suddenly spotted it. My hair felt as if it were standing on end and my spine had a shivery feeling and my nerves tingled and I felt warm all over. I watched him throw a few times to make sure, then I knew I was right. *This guy was tipping his hand on both his curve and his fast ball.*

I slid over to where Mike was sitting and said, "Hey, I think I got something! When he's going to throw [*Continued on page* 84]

Top to bottom: **Dressen tells bullpen coach to warm up bespectacled pitcher; hollers voice signal to first-base coach. "Skin to skin" movements warn hitter to expect pay-off sign.**



Browning poses with his first machine gun used by U.S. forces: a Colt-Browning of 1895 which was nicknamed the Peacemaker.

GENIUS GUN DESIGNER

John M. Browning made patterns for gun parts with cardboard and scissors. But he was the greatest small-arms inventor of all time and his weapons-making dynasty still thrives

By LUCIAN CARY TRUE's Gun Expert

I first saw John M. Browning, the famous gun designer, as he was coming into the dining room of the Heublein Hotel in Hartford, Connecticut, in October, 1917. It was no accident that I was sitting at a table next to the one where he regularly sat. I had seen his picture so I didn't need to ask anybody who he was. He was a lean man, well over 6 feet tall, and 62 years old. He had a small white mustache but his head was almost completely bald. He wore a high, starched, wing collar, with a four-in-hand tie, a dark suit of conservative cut, and high shoes of Vici kid.

There was nothing in his appearance or his manner to suggest that he was a multimillionaire. He looked tired and preoccupied with his own thoughts. As I watched him I felt doubtful of being able to persuade him to talk at all. He had always avoided publicity. (One result of this was that his 12-line biography in the 14th edition of the Britannica, published after his death, contained five errors of fact.) Though he had gained world-wide fame in his own field he was little known outside it. Few people knew that our Army regarded him as one of the most important men in the United States, or that the Germans felt the same way about him.

Both armies knew that when an American armed force used a fully automatic machine gun in combat for the first time in 1898, it was a Browning gun. Both armies knew that our Army had adopted two new Browning guns—a water-cooled, .30-caliber machine gun and a machine rifle, known today as the B.A.R. (Browning automatic rifle). And anyone who knew about Browning could guess that he was working on something else our Army greatly needed. I didn't expect him to tell me what it was, since it was necessarily a military secret. But I wanted to know what kind of man existed behind that austere appearance.

Photographed for TRUE by DAVID B. EISENDRATH, JR.

Browning finished his dinner, which didn't in-

REPRESENTATIVE BROWNING GUNS *(from top)*: Browning Superposed; Browning Double Automatic; Remington Model 81; Remington Model 17; Stevens Model 520; Remington Model 24; original Browning single-shot rifle; FN Browning .22; Winchester Model 1885; Colt-Browning Model 1895/1914; Browning air-cooled Model 1919 .30-06; British .303 aircraft machine gun. PISTOLS *(from top)*: Browning Hi-Power 9mm.; Colt Models 1908, 1911.

volve a drink, a cigar, or coffee, looked at the front page of an evening paper with its news of the first World War, then turned to the baseball gossip on another page. When he laid the paper down I went over and introduced myself. I had to admit I was a reporter.

He was ever so courteous. But he answered my questions with a "Yes" or a "No," and that was that. Finally, getting desperate, I said something that implied I liked hunting. That proved to be the password.

"It's hunting weather," he said. "I wish I were back home, hunting elk."

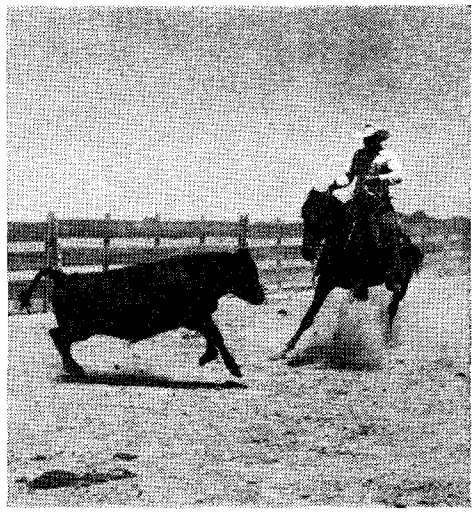
Home to him was Ogden, Utah, where he had been born, where he had hunted and fished and had done all his early work. I knew from his tone, and from the ghost of a rueful little smile, that he was homesick. It is an illness that may afflict anyone at any age but I was surprised that a man with Browning's supposed reserve admitted it.

He went on to tell me of the year when he lived on elk steaks for weeks at a time—elk steaks for breakfast, elk-steak sandwiches for lunch while hunting, and steaks for supper. He was not a city man and never became one, no matter how much time he had to spend at Colt's in Hartford, or Winchester's in New Haven or at the Fabrique Nationale des Armes de Guerre in Belgium. He was a man of the West—the early, pioneer West—that was won within his memory.

GUNS *(from top)*: Browning Sweet 16; these Winchesters: Models 1893; 1897; 1887 (12 gauges); Model 1886 in .45-70; Model 1890 .22; Model 1895 in .30-40; Model 1900 .22; Model 1894, most popular sporting rifle ever, with 2,133,271 made at year end); Model 1892. Browning Automatic Rifle; Browning water-cooled Model 1917; Browning M2 machine gun. PISTOLS *(top, from left)*: FN Brownings; *(left, from top)*: Colt Woodsman; original FN Browning 7.65mm.

He loved his work on guns and the work he was doing at the time, as I learned after the war was over, was urgent. The Army had learned in Germany what it should have learned long before we entered the war—that it desperately needed a machine gun of .50 caliber, shooting a bullet four or five times as heavy as the .30 caliber, and giving much greater penetration on steel. Browning, knowing the urgency, perfected a .50-caliber machine gun in a fraction of the time such a project usually takes. But just the same, for half an hour on that October evening, he longed to be home, needed to talk about it, and so confided in a stranger who was younger than some of his sons. Since then I have been a little incredulous when men who worked with Browning tell me he was a stern man, with eyes that looked right through you, and a face that never changed expression. I don't doubt that he had a lot of iron in him—he couldn't have done what he did if he hadn't. But I remember him as a man who was kind to a young reporter when he didn't need to be, and was lonely.

How did John Browning do the things he did? He had little formal education, less than is now required to enter a city high school. But his father, Jonathan Browning, was a gunsmith, born in 1805 when all guns were flintlocks. Jonathan Browning served his apprenticeship in Nashville, Tennessee, and set up his own shop when he was 21. By that time the percussion [*Continued on page* 66]



Photographer took little chance here because horse can turn quickly at touch of reins. Right, critter bolts . . .

TEXAS

Ask any Texas rancher which is the more valuable to him, a fancy-bred racing horse or a top-rate cutting horse and he'll snort, "Hell, a cuttin' horse!" To a dude this will sound downright strange, mostly because only a few people know what a cutting horse is. The truth is, a cutting horse is just about indispensable on the range.

The job of the cutting horse, guided by his rider, is to cut out certain animals from the main herd. The boss may want to cut out the steers from the herd for shipping, or he may want to separate certain yearlings, cows with calves, heifers, strays or other cattle. The cutter rides his pony into a herd, selects the animal he wants and works it to the edge of the herd. Here, the critter is apt to want to turn and dodge back into the herd, but the cutting horse anticipates the animal's movements and keeps the cow going where he wants him to go. A good cutting horse is always a fraction of a second faster than any cow alive, anticipating movements quicker than the cow can execute them.

A practical cutting horse is not limited in his abilities. Most of them have had experience in driving cattle, and many of them are top roping horses as well. And like a real cowboy, the cutting horse savvys the cow's many ways. He responds readily to the slighest touch of the reins or to the slightest shift of the rider's body. Some people say a cutting horse is born, not made, but the truth is, he's both.

You start to train a horse to cut by riding him in amongst the herd and getting behind a cow that has been selected for cutting. The horse stays on the cow's tail until it has been delivered to the "cut," the name by which the bunch of segregated animals is known. If the horse has the necessary aptitude he will, soon after being shown a particular animal, stay with it as a fox hound stays with a fox. Many intelligent, active animals cannot make good cutting horses because they are unable to restrain their eagerness. Unless a horse is born with intelligence, power of action and also power of restraint, all the training in the world will not make him a good cutting horse.

Being smart and quick is not enough. A good cutting horse with a good cowman on him can bring a wild steer out of the middle of a herd of a thousand rollicky cattle without exciting them and stirring them up. An excitable horse can get a herd to milling around so that nobody can cut until they quiet down.

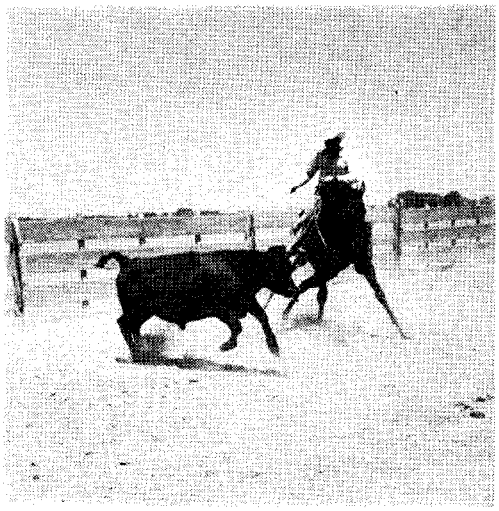
"He'll do to ride the river with," they say, meaning, in the language of the range, he is utterly dependable, trustworthy, steady, that he will stay put until hell freezes over. That is a quality in horses, too—considering always the limitations of horsekind.

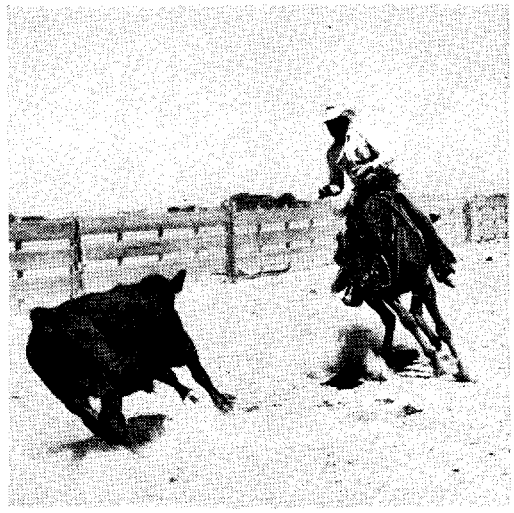
I'd rather hear Rocky Reagan and Asa Jones talk horses

Nine-tenths of everything you hear in Texas is pure bull. But you can believe even the wildest tales about the famed cutting horse, for he can do everything but talk Mexican

BY J. FRANK DOBIE

Photographed for TRUE by SID LATHAM





. . . but cutting horse moves in to head him off and nose him back where rider directs. Note rider sits easy, reins slack.

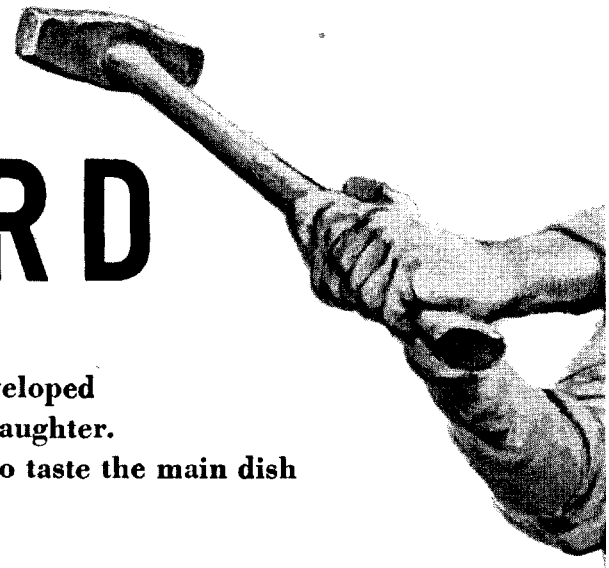
than any cowmen I know, and I've known them most of my life. They are both oldtime brush-country ranchers, though Asa moved up the Rio Grande years ago. When they began working cows more than half a century ago, nearly all the ranch horses in lower Texas were Spanish horses, and oldtime cowmen agree that no better horses for cow work ever existed anywhere.

The favorite of Rocky Reagan's memory was a well-built Spanish pony about 14½ hands high, named White Man. One time after gathering cattle for weeks out of big pasture brush and putting them into a 2,500-acre trap, he and two other owners had 4,000 cattle ready for rounding up and cutting out. They were mostly big steers, some of them outlaws that had been roped, along with a scattering of cows, dogies and bulls. The roundup ground was an open mesquite grass flat, with some mesquite trees off to one side, under which the horse wrangler and his helpers had tied the cutting horses.

"After we got the herd together," Rocky Reagan says, "I put my saddle on White Man. I had another cutting horse named Jim that I intended to use when White Man got tired. There was no time to lose if we were to shape up the herd by dark. Three of us, Dolan and Wiley in addition to myself, were to do the cutting. The 4,000 steers were bawling and milling around, [*Continued on page* 65]

Here horse stops short, frustrating bull's escape. Author says, "Cutting horses are born, not made."

the case of the
DEADLY LANDLORD



It was no wonder that passing strangers developed such a strong appetite for the innkeeper's daughter. The mystery was why so few of them lived to taste the main dish

BY ALAN HYND

Illustrated by LOUIS S. GLANZMAN

The good folk of the hamlet of Cherryvale, on the prairie of southeastern Kansas, had nary an inkling that criminal history was unfolding when, one fine morning in April 1871, a prairie schooner rumbled over the horizon, creaked to a stop in front of the weather-beaten general store and disgorged a family of four. The head of the tribe, a 6-foot, 55-year-old, barrel-chested Dutch-American named John Bender, stood on the wooden sidewalk stomping off the dust of a tiresome journey, his sharp blue eyes peering out from behind a graying brown beard that all but obscured his face.

A small knot of yokels leaning against the general store, paid scant attention to Bender, or to his wife, a fat, drab nonentity, or to John Junior, a gangling, emaciated 25-year-old mouth-breather with pimples on his face and a faraway look in his washed-out blue eyes. It was Kate, the 18-year-old daughter of the family, who magnetized the observers.

Kate Bender was a young lady who went in and out in the right places, her medium-sized, well-moulded figure crying out for attention even from beneath brown cotton stockings and a long, black, alpaca coat. She had coal-black hair, parted severely in the middle, a heart-shaped face, rosebud lips and magnetic blue eyes.

It was Kate's voice, though, that was her big feature. The yokels leaning against the general store suddenly rustled to attention when Kate fluttered her eyes at them, and in that come-hither, sexy voice, said, with a direct look, "Hello."

Old John Bender had come from somewhere in the East and staked a claim to 20 desolate acres in Osage Township, about five miles outside Cherryvale. His nearest neighbors were half a mile away. The whole family pitched in and threw up a good-sized, two-room log cabin, planted some trees and vegetables and installed some livestock.

On the surface, the Benders appeared to be good, solid people, the salt of the earth, no different from the pioneers who were rumbling through Labette County over the old Fort Scott-Osage Mission Highway, right past the Benders' front door. Every Sunday the family drove into Cherryvale, dressed in their best to attend Baptist church services.

Gradually, though, it developed that the Benders weren't quite the run-of-the-mill folk they first appeared to be. Old John turned out to be something of a fanatic. He would not permit strong drink to darken his door. He went around stoutly advocating prohibition, which was still several years away in Kansas, and he wanted no truck with people who patronized watering holes.

Kate was given to riding at night on a white horse, her long, black tresses flying in the moonlight. The old maids chattering at the sewing circles opined that Kate was possessed of devils.

Young John, he of the faraway look, seldom spoke to anybody but had the disconcerting habit of looking thoughtfully just above a person's head, then throwing his own head back and letting go with a blood-curdling cackle. The mother, busy with womanly chores, seemed to be the only normal one in the family.

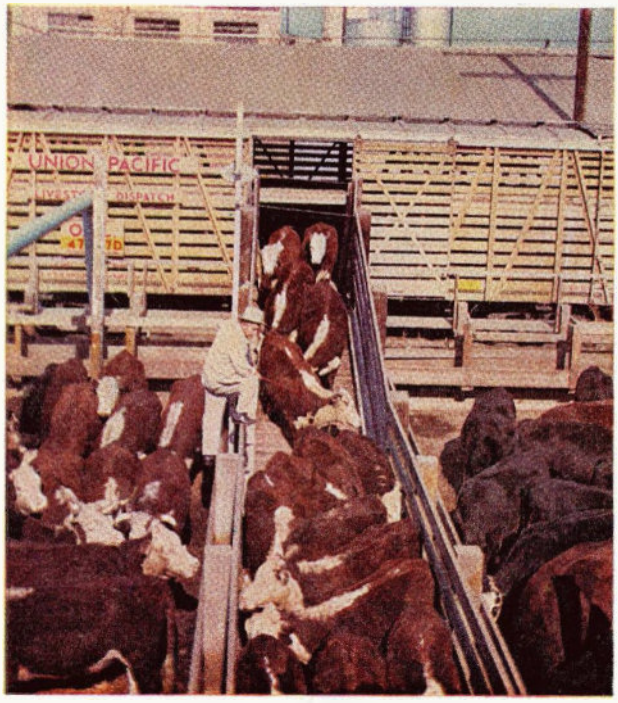
It was the custom of the [*Continued on page 74*]

Watching the livestock special booming past, these curious critters can be sure their last ride will be in proper style.

CATTLE DRIVE AT

BY CLYDE CARLEY

Photographed for TRUE by PAT COFFEY



At the end of the line, in Los Angeles, the Utah cattle amble off the cars on their way to the slaughterhouses.

SALT LAKE CITY

Out in the Rockies and desertlands that starved out the jackrabbits centuries ago, the Union Pacific runs a ringtailed rannygazoo that slithers through the badlands like the speediest freight train in the world. Which it is. The Daylight Livestock Special, No. 299, habitually bakes the ballast on the 777.4-mile run from Salt Lake City to Los Angeles so fast that no critter aboard can let out a self-respecting blat and hope to stick around long enough to hear it.

Let's ride on it and meet Big Dick Truex, cinder-bitten conductor of the old school and yarn-spinner supreme of days on the old Cripple Creek Short Line; and Jerry Leavitt, mighty mite of an engineer who handles 100-car stock trains without breaking a neck; and other cowhands of the western rails. They'll show you how and why they highball the cattle to L. A. in 25½ hours' actual running time, 27 hours total.

At the Big Board in Salt Lake City sits Chief Dispatcher Bill Hyde. Here is the magic of Centralized Traffic Control, greatest boon since the air brake to single-track lines. Hyde, iron-gray and leathernecked at 64, owns the softest voice and calmest disposition of any railroad official I've known. They go with his silent manipulation of the big

60 M.P.H.

There's a Union Pacific cattle train that races from Utah to California fast enough to shove the moo back into the cow. Take a ride on it now and see how it's done

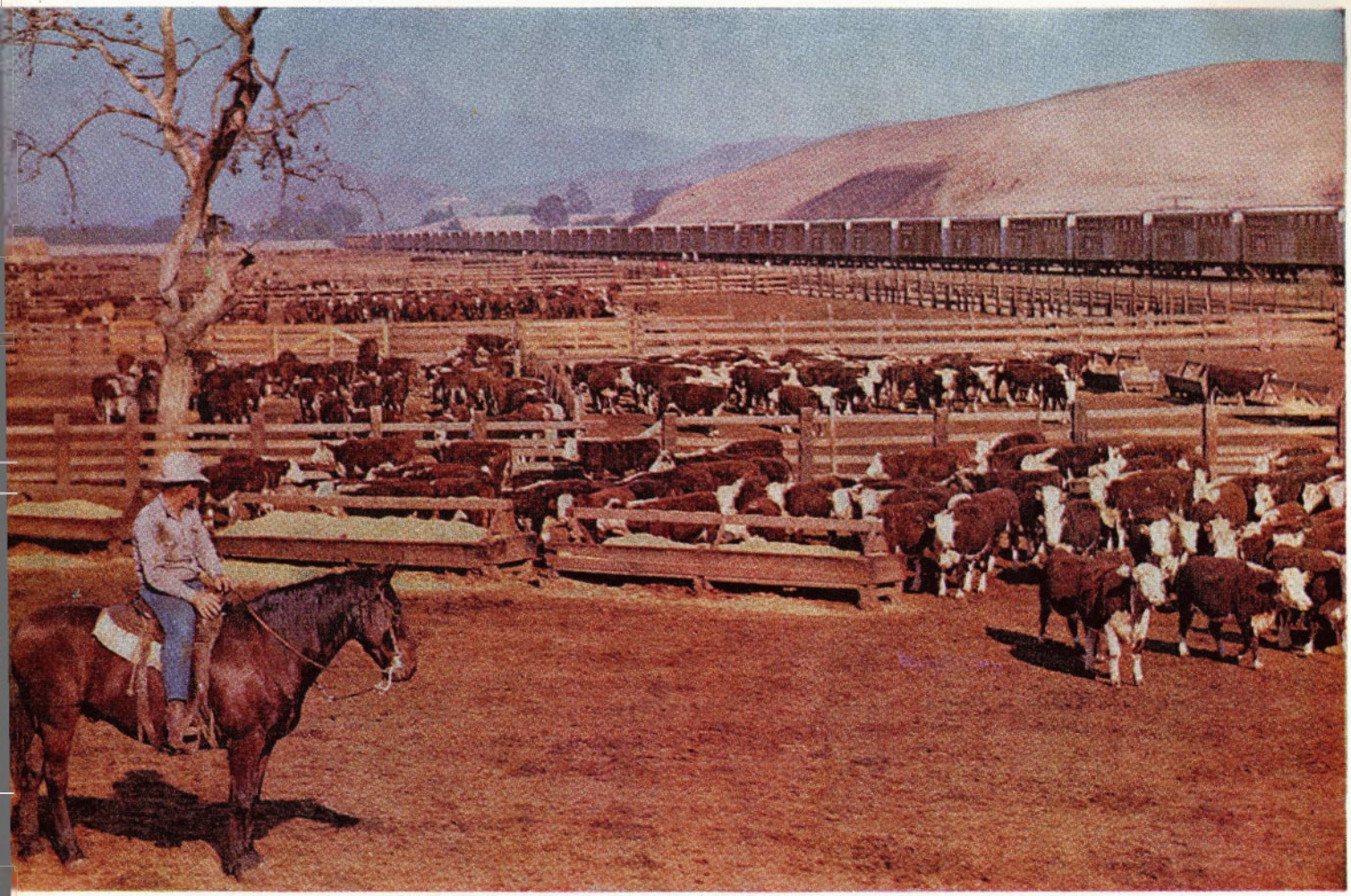
CTC board, 17½ feet from end to end and a few inches higher than a seated man's head. As you approach from behind, Dispatcher Hyde has the look of a puzzled deacon in a strange pew. But he is never baffled more than a dozen watch-ticks at a time. He has fingertip control, literally, over all the trains moving in either direction along 324.5 miles of track between Salt Lake and Caliente, Nevada. This is part of the longest continuous stretch of CTC installation in the world.

Unlike the ulcerous dispatcher of Morse telegraph days, laboriously banging out orders, Bill Hyde merely flips a toggle lever. Hundreds of miles down the line the signal at a lonesome switch blinks from green to red, and the engineer of the only moving thing thereabouts—except coyotes and gila monsters—throttles down as his train automatically heads into a siding. Within minutes—sometimes only seconds—a streamliner sails hooting by at an unchecked 80 mph.

"I'll give you boys a good ride," Bill Hyde promised as we watched the lights blink on and off on his board, "if you'll keep Jerry Leavitt on the ball."

It was well after 12:30 p.m. when we left Bill Hyde and his CTC panorama. With that puzzled-deacon look he had told us the Stocker would be held up a couple of hours. The delay was tied in with a recent flood; some yards up at Ogden were under two feet of water. Coming into Ogden the previous day we had seen the rampaging Weber River boiling out of the Wasatch Mountains, chew-

At the start, above Salt Lake City, stockyard cowboys tell the engineer the train's loaded and set for the high sign.

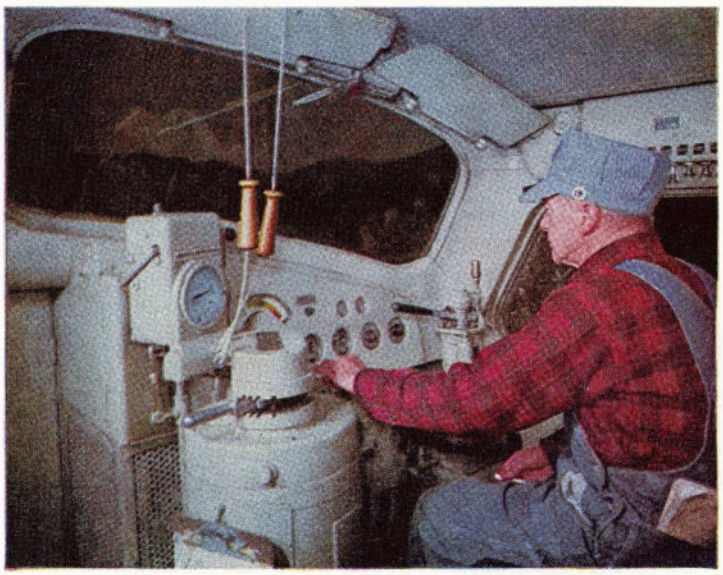


Gathered in the rail-side pens of Utah, the cattle wait for the cars that will tote them at 60 mph to the dinner table.

ing gaps in the highway and lapping at farmhouse windows. The flood cost the Union Pacific alone $150,000 before it was tamed. "We" is Ed Schafer, UP's assistant to the director of public relations, and myself. He had never been on the Stock Special either, and we eagerly looked forward to riding the train where hogs are treated better than people.

Almost in the shadow of the snow-peaked Wasatches, we changed to working clothes in the North Yard locker rooms and crossed half a mile of tracks to reach the yellow line-up of the Livestock Special. This train is so modern (the run was started in March, 1947) that it has never been hauled by a steam engine. If some of you have worked hard at your mathematics, you've already discovered that the DLS averages 30.5 mph. Maybe this doesn't sound like much beside the time of the passenger streamliners, but you can't compare the two—the services operate on vastly different bases. Stick that speed up, however, beside the average 17 mph of the 10,000 freights chuffing across the United States, and you'll see why this train is labeled a hotshot.

For this trip the Special had 86 loads, no empties, and 3,206 tons net cargo. This brought the total weight of the train well above 5,500 tons. Although I didn't take time for a count, Schafer said most runs cart about 10,150 head of cattle valued above $1 million. [*Continued on page* 90]



Nearing the end of the run into Los Angeles, the engineer gets ready to throttle down. The speedometer at left center shows the stock special still rolling along at 57 mph.

Courtesy Douglas Fir Plywood Association

UNDER-EAVE STORAGE

Your attic doesn't have to be a shin-cracking, eye-offending fire trap. And it won't be, if you install this simple, practical storage cabinet

One of the better ways to keep your attic from resembling a tornado-struck junkyard is to whip out the home handyman's tools and build yourself a neat and efficient under-eave storage unit. This plywood built-in is especially designed for expansion attics, but with a little figuring it can be made to fit just about any ceiling slope. Its cost—since you'll be supplying the labor—will fit just *about any budget, too.*

The completed layout might have been conjured up by one of those inch-pinching submarine designers who's been asked to get the mostest into the leastest space. There's a wardrobe that'll take 12 well-filled hangars; a comfortable, well-lighted desk area; and cabinets, drawers and shelves galore for clothing, books, radio, outdoor sporting equipment, luggage—as well as for that great, bulky miscellany that small children and large men find indispensable to life, liberty and the pursuit of hobby-ness.

Built easily of fir plywood, the unit may be painted either to contrast with or match the color of your walls.

[*Continued on page* 105]

BILL OF MATERIALS

Fir Plywood

Interior A-A: 7 panels, ¾"x4'-0"x8'-0", for partitions, doors, front, sides, shelves, drawer sides and backs, desk front

Plypanel A-D:
- 2 panels, ½"x4'-0"x8'-0", for interior partitions, back, shelves
- 1 panel, ¼"x4'-0"x4'-0", for drawer bottoms

Lumber

90 lineal ft., 1"x2", for trim, shelf cleats, drawer guides, miscellaneous
1 piece, 1¼" diameter, 36" long, for clothes pole

Hardware

12 pair 1½"x3" butt hinges for doors
10 bullet catches for doors
10 pulls for doors
2 metal chains for drop shelf
3 angle irons, ½"x1½"x1½", to anchor unit

A TRUE
BOOK-LENGTH FEATURE

UNDERWATER WIRE ACT

Cyrus W. Field was labeled a madman and thief, yet he would not abandon his Atlantic cable. Instead, with the 2,000-mile strand of copper, Field hoped to hold the whole world together

BY MAXWELL HAMILTON

Illustrated by TOM LOVELL

In many ways, it was like an operating room scene in a movie—the group of men darting wide-eyed looks at each other, asking wordlessly if the patient would live or die. The difference was that this was not an operating room, but the swaying, night-darkened deck of a ship in mid-Atlantic, and the tense, silent men were not doctors.

But there was little doubt the patient was dying.

The only light came from a single lamp that burned yellowly in the afterhouse; it barely outlined the weary workmen who stood motionless on the quarterdeck. In the almost deathlike stillness they watched the thin strand of cable run out from its huge spool into the sea.

With nerve-shattering suddenness, a sailor amidships dropped a marlin spike, making a reverberating clangor.

"Quiet!" an officer snarled.

A gaunt man, crouched intently before a small box which at regular intervals gave off a bright, leaping spark, showed only by the flicker of an eye that he'd noticed the break in the almost painful silence.

Quietly, the minutes passed while the big spool fed the cable, less than an inch in diameter, over the fantail into the water. At long last, the gaunt man heaved a sigh and slowly, almost painfully, drew himself erect.

"That's it," he said to the man at his side. "She's gone again for sure."

"Cyrus—*no!*"

Cyrus Field clenched his bony fists and stared sullenly at the black and ominous night. The leaden sky promised a return of the lashing gale which already had maimed so many of their party and had turned at least one crewman into a hopeless, raving madman. "I'm afraid so, Joe," Field said. "The signal's stopped again. I'm afraid it's

Field frantically grabbed at the wheel to loosen the brake drum. But is was too late; the cable had snapped again.

another break in that wretched line."

The gaunt man was right. It *was* another break in the line, another dashing of the hopes, built up over four long years, of this little band of adventurers who'd gone to sea with a wild, harebrained scheme to lay a telegraph cable under the Atlantic Ocean.

For Cyrus W. Field, the 39-year-old New England Yankee who had launched this second attempt in the early summer of 1858, the latest catastrophe was a bitter pill to swallow. What would people say now, when he announced another failure? Already the press and public alike had denounced him as the maddest of fools, a scheming visionary, a thieving and unscrupulous charlatan.

What chance could there be now of ever making a third attempt? Already, more than $200,000 worth of precious cable lay hopelessly lost on the ocean bottom. Surely no one would be reckless and profligate enough to want to add more to such a loss.

The new break had come without warning or apparent cause, and Field wondered if sinister elements at work were determined he would *not* succeed, no matter what had to be done to stop him. In his despair—on this bleak night of June 29, 1858—he could almost hear his enemies: *Now* would he believe what the great scientist, Faraday, had said—that no electric current could possibly pass through a wire 2,000 miles long? *Now* wasn't he convinced that a cable, lying on the ocean floor, was almost certain to be torn apart by the surge of deepwater currents, or eaten by voracious sea serpents?

Finally, what had he to say now about the obvious impossibility of retrieving, much less repairing, a valuable electric cable once it had been dropped into the ocean depths? How did he plan to do it—by going down in an elevator with a pair of pliers and a miner's lamp!

Field looked at the darkened sky, by no means certain he had the strength to carry on, but determined nonetheless to do so.

Cyrus West Field, the son of a stern New England churchman, was not an engineer or a scientist, or even a good journeyman electrician. He had little schooling. His one achievement, up until the cable claimed his full attention, was that he had made enough of a fortune as a paper manufacturer to enable him to retire before he was 35 years old.

As a successful New York businessman, he'd paid only scant attention to a chap named Samuel F. B. Morse, the inventor of the overland telegraph, who'd attempted to stretch a telegraph cable under New York's East River, from the Battery to Governor's Island. In the summer of 1842, Field probably laughed with the rest of New York's hard-headed industrial leaders when Morse's stunt failed and a passing shipmaster scooped up the cable with his anchor and sold it.

Field also had heard nothing of an Englishman named, of all things, O'Shaughnessy, who, in 1839, had stretched a wire across the Hooghly River, at Calcutta, India, and had sent electrical impulses through it. As for Colt, the inventor of the revolver, Field undoubtedly considered him as much of a dreamer as Morse when Colt, too, tried to connect New York and Brooklyn by underwater cable in the summer of 1846.

Only later was Field to hear about a British engineer named Brett, who had proposed to lay a cable under the English Channel from Dover to Calais, in 1851, and who actually accomplished this fantastic feat despite charges from both continents that he was "a gigantic swindler." Aside from being given an unmerciful pummeling in the newspapers of the day, Brett ran into an even more bizarre misfortune after his cable had been laid. A French fisherman, trawling one day in the channel, hauled up Brett's wire and hacked off a hunk of it. At the sight of the bright, shiny metal inside, he had gone whooping off to Boulogne with the news that he'd found a new type of seaweed whose insides were pure gold. His find was exhibited for weeks in Boulogne.

Cyrus Field had read and heard of none of these misadventures with submarine cables, and he knew nothing of Bishop J. T. Mullock, of the Roman Catholic diocese of Newfoundland.

His Excellency, the bishop, becalmed on his yacht in the Gulf of St. Lawrence one day in 1850, fretted at the delay in communications in that part of the world; he implored the Almighty to find some new way of bringing him into more direct contact with his flock.

As the bishop saw it, an overland cable would do the trick. Yet, whenever the subject of an overland cable was mentioned as a means of bringing ships arriving from Europe into quicker contact with New York, the cable's proposers always mentioned Halifax as the eastern end of the wire. This, the bishop suddenly decided, was nonsense; it should not be Halifax at all, but rather at St. John's, Newfoundland.

Accordingly, when he got back to St. John's, Bishop [*Continued on page* 106]

"I used to play hard-to-get, but I find I get more by playing hard-to-get-rid-of."

The versatile new '56 Dodge 8-passenger Custom Sierra V-8 Station Wagon

Take any number...up to 8!

LUCILLE BALL and DESI ARNAZ (above) co-star with JAMES MASON in the MGM side-splitter, "FOREVER, DARLING."* Their adventures in a Dodge Station Wagon make first class entertainment (and first class travel)!

*A Zanra Productions, Inc., picture filmed in Hollywood by Desilu and produced by Desi Arnaz.

What are *you* planning to do this afternoon, this evening? And wouldn't it be a lot more fun in a new '56 Dodge Station Wagon?

Here's what we mean: *Take any number, up to 8, on a safari to the ski lodge, to the theater, the dance or what have you.*

Pick up that furniture at mother's. (With the rear seat removed and the middle seat folded forward, you have a 9-foot level platform.)

Use the tailgate as a buffet table on your family picnic.

Take the driving group without using sardine-packing techniques.

You have your choice of 2-door and 4-door models, Suburban or Sierra, in fascinating colors and interiors. And every '56 Dodge wagon offers Magic Touch push-button driving.

Look them over at your Dodge dealer's . . . soon!

New '56 DODGE

VALUE LEADER OF THE FORWARD LOOK

SPRUCE UP FOR SPRING

This is the time of year when a young man's fancy turns to a well-turned ankle—and to a well-rounded new wardrobe

Spring has sprung. Now is the time when the bird and the feminine hemline are on the wing, when capricious wind currents may fling a reluctant robin or an unreluctant blonde in your eye with the flick of a vagrant zephyr. To approach this enjoyably hazardous season in anything but the newest and finest of men's finery is to be an undeserving lout. And since none of TRUE's readers want to be that, here are some suggestions to make you and your spring wardrobe a suitable target—of reciprocal feminine glances.

The new spring clothes come in a variety of styles and a range of colors to suit any taste or activity. And the clothing manufacturers have ironed out the troublesome kinks that once plagued the blends of synthetic and natural fibers; the new blends give you the best qualities of each fabric.

Take that dacron-tweed suit on the man carrying the topcoat, for example. The dacron is strong and light and crease-resistant, and the tweed imparts luxurious bulk.

This spring also marks the definite return of the blazer. Originally worn by the Gay Nineties sport, it is now suitable and respectable for any occasion where an odd jacket is called for. Apparently blazers used to be catnip to the Gibson Girls: maybe you can locate as charming a car ornament as the fellow sporting the blazer on the next page.

Spring can be a lot of fun if you make it something more than just shucking a few extra layers of clothing.

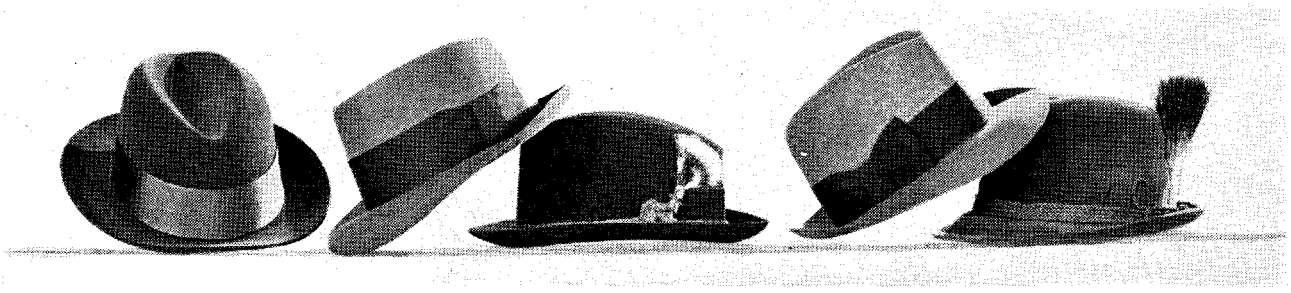
Besides appealing to the eye, most of these spring clothes are easy on your wallet, too. So put some extra spring in your clothes closet now—you'll look as smart as you are.

Photographed at Amster Yard, New York City

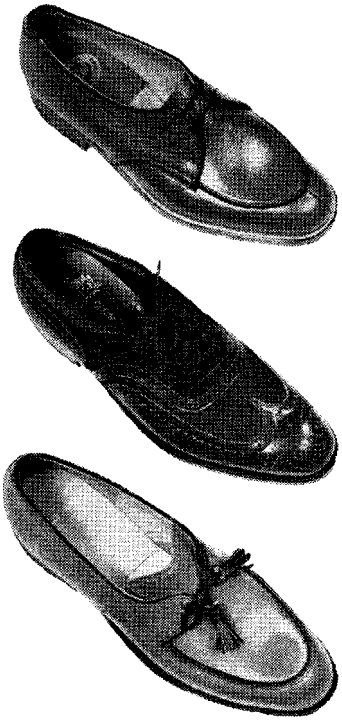
Three Early Birds—And A Spring Sport: Damewatching

If you can get your eye on the men above for a minute: the business man (left) wears a Gramercy Park dacatweed suit ($50), Golden Arrow shirt ($5.95) and silk tie ($2.50); Lee felt hat ($13). He's carrying a Barry Walt gabardine topcoat ($90). The connoisseur (center) is wearing a Dobbs velour hat ($20); Hathaway plaid shirt ($9); Arrow knit tie ($2.50); Barry Walt raglan tweed topcoat ($80); Corbin flannels ($19) and a Mavest wool jacket ($55). The old pro (right), who has his eye on a chick not a sparrow, sports a Resistol hat ($10); Currick & Leiken striped blazer of imported Shetland ($50); Corbin flannel trousers ($19) and Hathaway Beatrice dress tartan viyella shirt for ($17.50).

Perfect jackets for informal times are (l. to r.) the Bantamac washable suede ($27); the Stanley Blacker tweed ($42); and the Sport Chief wool plaid with cap matching ($20).



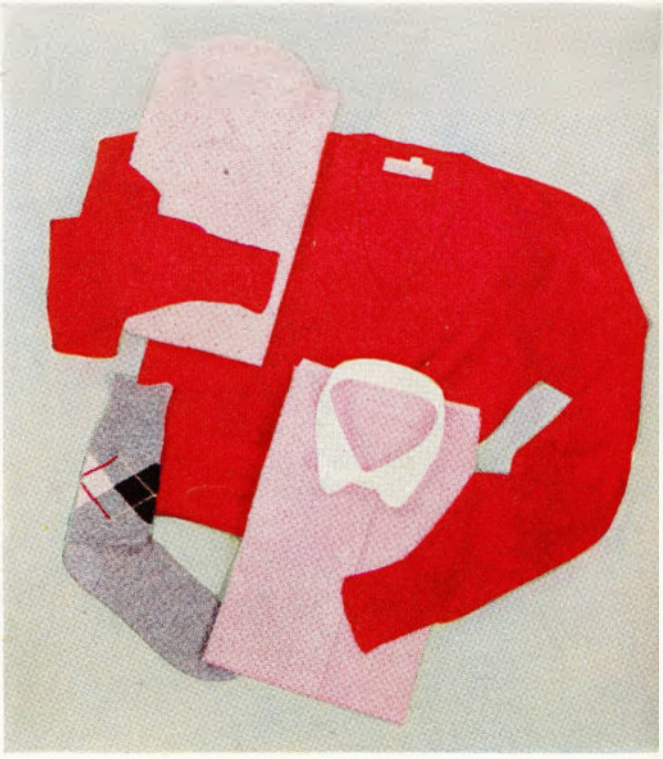
Here's a choice (l. to r.) of a Dobbs Royal York ($16); a Disney double-brim charcoal ($10); a Dobbs Kent Tyrolean gray ($13); a Cavanagh English felt ($15), and Tyrolean velour ($20).



To put spring in your step (top to bottom) are an M.T. Shaw tan-grained leather two-eyelet ($11); a Whitchouse & Hardy nylon mesh-and-leather Oxford ($21); and Jarman tassel tie ($16).

Besides the gal and the 'Bird, the man at left has a Rumson jacket ($45); Hathaway shirt ($13.50); Bantamac orlon pullover ($10); Corbin slacks ($19); and an Elis lambswool cap ($5). His pal is wearing a Goodstein Thunderbird coat ($40); Worsted-Tex Thunderbird jacket ($40); Arrow Thunderbird shirt ($6); and a Dobbs hat ($20).

The shirt department above includes (l. to r.) two Arrow shirts ($5) and ties ($2.50); a Hathaway mint-green ($9) and Arrow tie ($5); and a Van Heusen horizontal-striped ($3.95) and tie ($2.50).



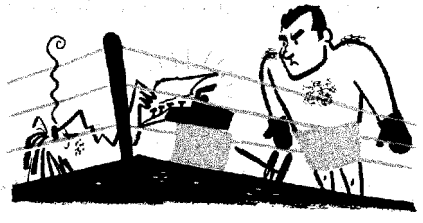
The Glasgo orlon pullover ($10.95), at center, is a fine companion for the Arrow shirt ($5) at left; the Van Heusen gingham check ($5); and the Interwoven wool Argyle stretch socks ($2.95).

Man to Man Answers

[Continued from page 23]

every 15 to 25 miles. They had the conventional hitch, the wheel horses as in a two-horse team, harnesses equipped with breeching, though brakes were depended on mainly. The lead team had no breeching. It was hooked to a doubletree, with singletrees attached to the end of the tongue. In some routes of deep sand or steep grades, six horses were used. They were hooked to a doubletree, with a chain leading back to the tongue. Reins led to each horse. No more than six horses were ever used.

Q: Was Paul Gallico once knocked out by Jack Dempsey? *Leonard Roseman, New Bedford, Mass.*



A: Yes. Gallico, a sports writer and editor before 1936, wanted to write a story about how it felt to be knocked out by Dempsey. The Manassa Mauler accommodated him and Gallico got his story.

Q: Which country has won the Davis Cup tennis trophy the most times? *James Kean, Long Beach, Ind.*

A: The United States has won the cup most often—17 times—since the first matches in 1900. It has also failed the least times—seven—to reach the challenge or final round. Australia has won 12 times, Great Britain nine and France six. Belgium and Japan are the only other nations to have reached the finals, Belgium in 1904 and Japan in 1921. Though winning 17 times, the U.S. has lost 20.

Q: Who painted *The End of the Trail*, an Indian on a horse? *Sgt. H. A. Gordon, RCAF, Mont Apica, Quebec, Canada.*

A: We think you have this confused with photographs of the equestrian statue, *End of the Trail*, first shown in the San Francisco Exposition in 1915, depicting a weary horse and a despondent Indian facing the Pacific Ocean. It is the best-known work of James Earle Fraser, Minnesota sculptor who died in 1953. Examples of his work now appear in many cities, and he designed the Indian head and the buffalo on our five-cent piece. His widow, Laura Gardin Fraser, is well known for models of animals and for designing coins and medals; winner of the competition for the Lindbergh Congressional medal.

Q: Why are rainbows always seen in the east? *Alfred Griggin, East Orange, N. J.*

A: A rainbow can be seen only when the sun, the observer's eye and the center of the arc are in a line. As most rainbows are seen after late-afternoon, summer thunderstorms, the rainbow must be in the east as the sun is in the west. The rainbow cannot be seen if the sun is high. If conditions are right, rainbows may be seen in the mist from large waterfalls.

Q: How many of the world's rivers flow north? *Warren Welch, Monongahela, Pa.*

A: Your question stumps the experts. The American Geographical Society says a study of this subject has not yet been made. Many factors must be considered, such as the difference between a river and a creek, and what north-flowing really means. Would you say that if the mouth is farther north than the source, the river flows north? This is true of many streams in Wyoming and Montana which flow north or northeast before entering the Missouri, which certainly flows south. It is said that the only important river wholly within the United States that flows north to the sea is the St. Johns in Florida.

Q: Did Napoleon say, "In every soldier's kit bag is a French leave"? What does it mean? *F/C C. M. Sorge, RCAF, Winnipeg, Manitoba, Canada.*

A: We are not sure Napoleon said this but it sounds like him. He always looked out for his soldiers in peacetime. However, in the 18th century a custom arose in France of leaving a reception without paying respects to host or hostess. Later this term was applied to those who skipped town without paying their debts, and this evasion of responsibility has been the interpretation ever since. Napoleon might have meant that his soldiers could pass up a few bar bills and it would be all right with him.

Q: What is the female gender of wolf? *R. J. Murgerber, Youngstown, Ohio.*

A: She-wolf. A wolf is commonly referred to as a wolf, no matter which its gender. In cases where a differentiation is necessary, she-wolf is used.

Q: What clipper ship made the fastest voyage from New York to San Francisco? *Joseph Viviano, Alexandria, La.*

A: In 1851 the *Flying Cloud* had a sailing time of 89 days, logging 15,091 sea miles. Clipper ships of that era outsailed early steamships until the 1860's. Another, the *Northern Light*, sailed from San Francisco to Boston in 76 days and 6 hours. Both were designed by Donald McKay. No cargo sailing vessels have ever exceeded America's clipper ships in speed.

Q: Is Colorado a Comanche Indian or a Spanish word? *F. W. S. Crane, Raymond T. Heller, Sand Point, Alaska.*

A: Spanish. It means red or ruddy, and was often used by Spanish explorers in the Southwest.

Q: Is there a red Weimaraner dog? *Jack Williams, Blythe, Calif.*

A: Standards adopted by the Weimaraner Club of America specify that the color shall be gray, in tones of silver, bright, dark, or yellow, and the dark-gray may be either ash or blue. However, a Hungarian dog, the Viszla, is somewhat similar to the Weimaraner, but has a reddish coat.

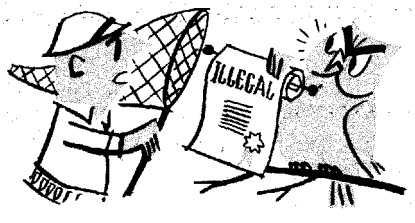
Q: Is it true that the Mississippi River flows uphill as the mouth is higher than the source? *H. E. Dougan, Louisville, Ky.*

A: It is true if you use the center of the earth as a basis. In that case the mouth of the Mississippi is about four miles farther from the center than the source. This is due to the flattening of the earth at the poles and the shortening of northern radii. But the operation of gravity does not work that way. The great mass of the earth still pulls water downhill as we know it. Sea level forms the base of terrestial measurements and the source of the Mississippi is about 600 feet higher than the mouth.

Q: When did Bronko Nagurski play football? *George W. Adams, Torrance, Calif.*

A: Upon graduation from the University of Minnesota, he joined the Chicago Bears in 1930 and played through 1937. He was named All-League fullback in 1932, 1933 and 1934, taking over the honor from Ernie Nevers. After the 1937 season Nagurski retired to the farm where he was discovered, earning extra money wrestling. In 1943 he returned to the Bears, played tackle for awhile, then switched to fullback. Though he was nearly 40 years old, almost single-handed he led the team to the championship. Records were not kept in his early career but unofficially he is credited with gaining 4,031 yards in 872 attempts. Also unofficially, he had an average of 4.6 yards per try, highest known. He completed 38 of 80 passes. On defense he was phenomenal.

Q: I want to catch or buy owls to breed them for decoy purposes. Where? *Robert W. Trowbridge, Independence, Mo.*



A: It is illegal to catch or own any native wild bird unless you have a state or federal license, which is granted only for educational purposes.

Q: Did the crowing of cocks at dawn begin when Peter denied he knew Jesus Christ? ***David F. Fabella, Houston, Tex.***

A: Scientifically, it is difficult to understand how such an incident could change the habits of roosters all over the world. Fowls had been domesticated for possibly 2,000 years. The Chinese, who had them in 1400 B.C., wrote that they came "from the West," and India is believed to have been the country where domestication originated. Early Greeks and Romans had chickens, as did the ancient Gauls. Pueblo Indians in New Mexico domesticated the wild turkey before the coming of white men. Roosters, wherever they are, crow at dawn, and also in the night and in daytime.

Q: Why is Butte, Montana, known as "The Richest Hill on Earth?" ***A/3C Robert W. Conchin, F. E. Warren AFB, Wyo.***

A: Because of the great concentration of mineral wealth in this spot. Gold was discovered in 1862, then silver, finally a huge deposit of copper. Manganese, lead and arsenic are also mined.

Q: Can a serviceman's wife be buried in Arlington Cemetery? ***Clifford Liles, N. Y., N. Y.***

A: Yes, if her husband is buried there.

Q: Who holds the most records in professional football? ***A/3C Gerald R. Mueller, McChord AFB, Wash.***

A: Sammy Baugh, with the Washington Redskins, 1937-1952, holds more than we can give here. He completed 1,709 passes for gains of 22,085 yards out of 3,016 attempts, had 187 touchdown passes, and in one season his passing efficiency was 70.3 percent. He was a top punter, leading in 1942 with an average for 30 punts of 48.7 percent efficiency.

Q: What 1954 college football players made All America on the chief teams? ***Ronald Jenkins, Oakland, Calif.***

A: Ends—Max Boydston (Okla.), Don Holleder (Army), Ron Beagle (Navy); Tackles—Jack Ellen (UCLA), Sid Fournet (LSU); Guards—Calvin Jones (Iowa), Jim Salsbury (UCLA), Bud Brooks (Ark.); Center—Kurt Burris (Okla.); Backs—Ralph Guglielmi (Notre Dame), Howard Cassady (Ohio S.), Dick Moegle (Rice), Alan Ameche (Wisconsin).

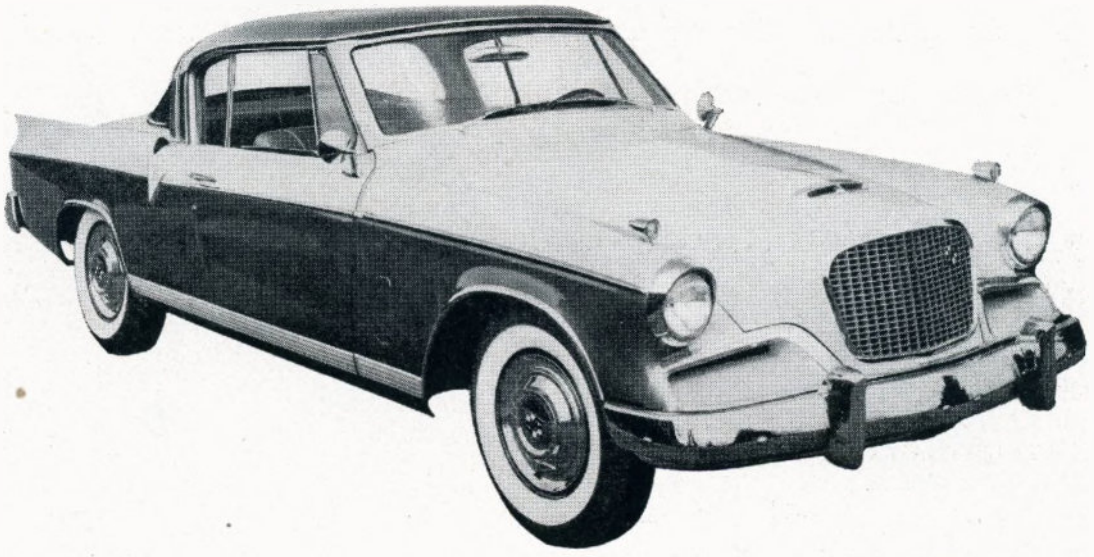
Q: Are snakes found in arctic regions? ***Eugene Hryb, Pittsburgh, Pa.***

A: The European viper, berus, common in parts of England and Scotland and extending across Europe and Siberia to Sakhalin Island in the Pacific, is also found as far north as the Arctic Circle in Norway and Sweden. While belonging to the large family of poisonous snakes, the *Viperidae*, the bite of the berus is rarely fatal, though results may be severe. It is a small snake, about 2 feet long, and gives live birth to a dozen or so young.

[*Continued on page* 104]

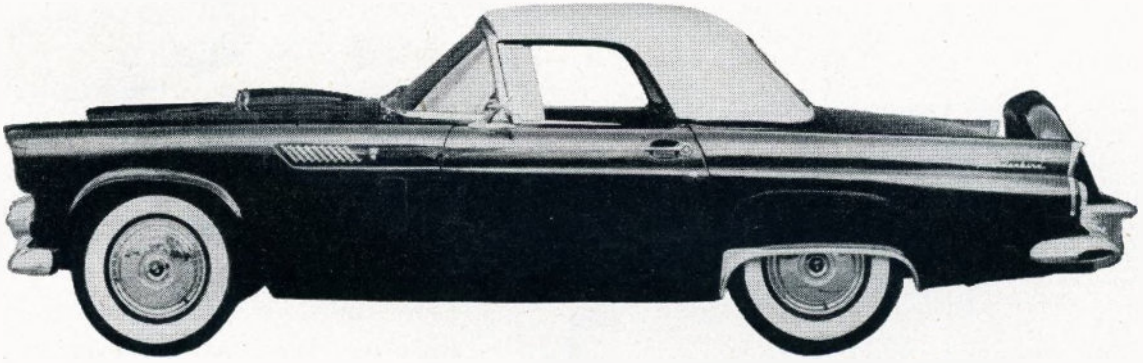
FREE! WIN A

FIRST GRAND PRIZE



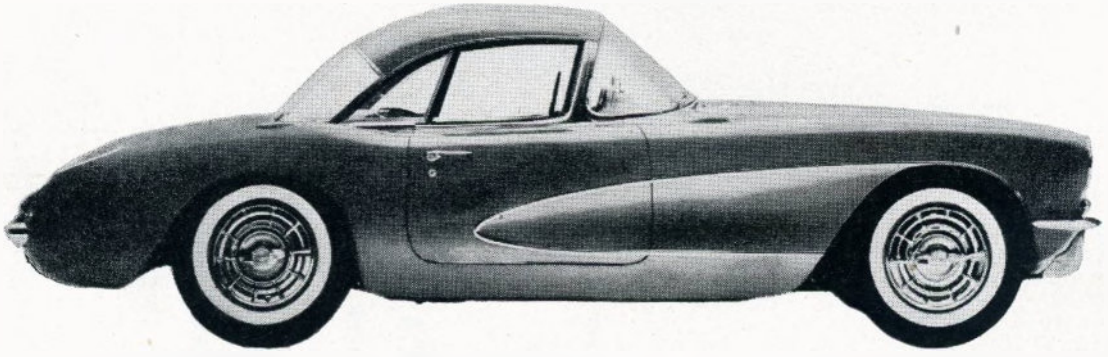
Newest of flashing American sports cars is Studebaker's 275-horsepower Golden Hawk, the lead model in the first full line of American-made sports-type cars. Designed to outperform any other car on the American road (via highest horsepower-to-weight ratio) the Hawk seats five, has big, round white-on-black instrument faces, safety-fin brakes, crash padding—and goes down the pike like the flame out of a blow torch!

FIRST GRAND PRIZE



Latest version of Ford's high-flying Thunderbird is this 225-horsepower 1956 model, complete this year with new wind-wing windows, Continental-mounted spare, restyled exhaust ports and available as usual with both hard and soft top. Ford sold over 16,000 of these critters under the 1955 label, making the T-bird the most successful sports car ever made in America. A TRUE contest winner will soon own one of these!

FIRST GRAND PRIZE



Restyled from headlamps to rear quarters, a 1956 Chevrolet Corvette rounds out TRUE's trio of grand prizes. Latest model of this glass-fiber-body car features a power-operated fabric top, a removable solid top as optional equipment, roll-down side windows (power operated if desired), a 225-horsepower V-8 engine, choice of regular or Powerglide transmission—in any of six colors: black, red, green, copper, blue or white.

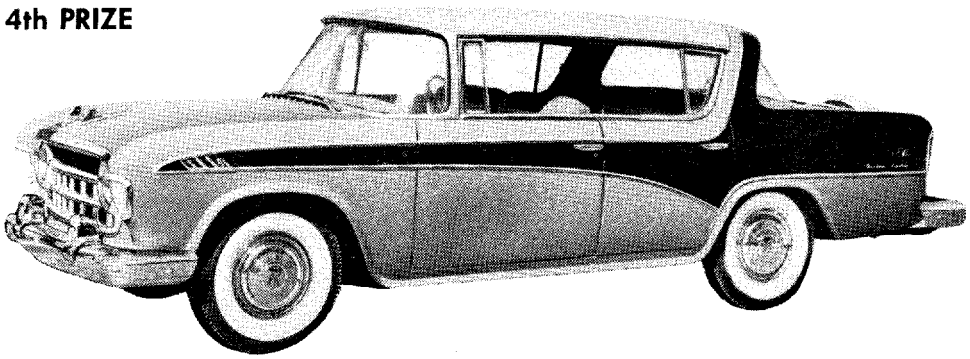
SPORTS CAR!

Thousands of Dollars in Other Valuable Prizes

ENTER TRUE'S BIG ANNIVERSARY CONTEST

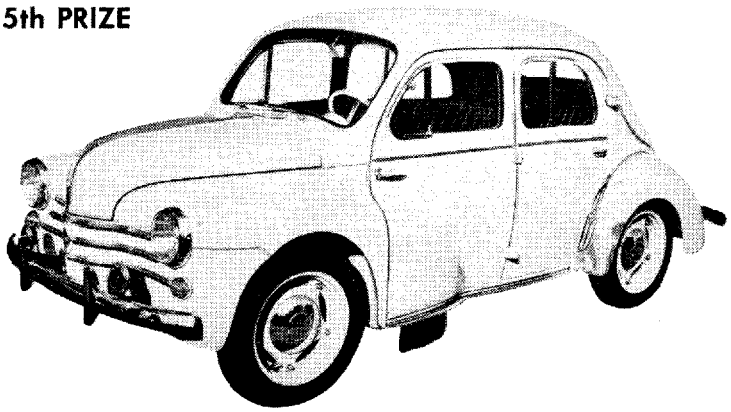
Within three months, the five top winners in TRUE's mammoth reader contest are going to be wheeling down the main streets of their home towns in these five great automobiles. Scores of other winners will be presented with the magnificent prizes listed on the following pages: fine guns, handsome clothing, versatile power tools, rod & reel sets, aluminum boats and many more. To celebrate its own 20th birthday, TRUE has assembled one of the biggest magazine giveaways ever—and it's easy to enter, easy to win. Take a good look at all that can be yours on these pages, then sharpen some pencils, reach for your Webster's and get to work fast. TRUE wishes you luck.

4th PRIZE



The sensational new American Motors Rambler, "a 1957 model completed a year ahead of schedule," has new 120-horse, overhead-valve engine, torque-tube drive, coil-spring suspension all around, larger interior (but trimmer exterior), plus travel beds and all the other fine features that have made Ramblers good American road cars.

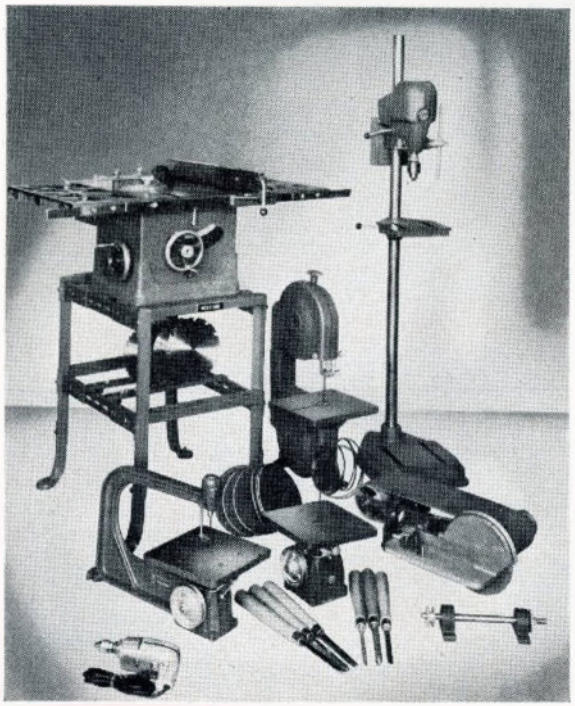
5th PRIZE



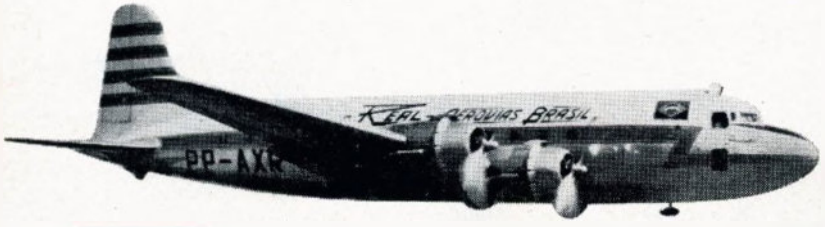
The smart, rugged French Renault 4CV is a fully equipped (heater, defroster & turn signals) 4-door, 4-passenger sedan that gets in and out of traffic like a rabbit, parks anywhere and puts out 50 mpg.

FOR MORE TURN PAGE

6th PRIZE Exciting vacation trip to Europe! Two round trips, New York to Hamburg, Germany, via Lufthansa plus two weeks at Hotel Vier-Jahrzeiten. Worth $1301.

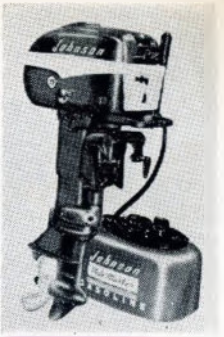


8th & 9th PRIZES Do-it-yourself for profit, for fun, for free! Two complete $606 home workshops by Toolkraft include table saw, drill press, lathe, band saw, belt sander, a quarter-inch drill and countless other accessories. All tools less motor.



7th PRIZE Travel to South America, go rolling down to Rio! Two round trips from Miami to Rio de Janeiro via Aerovias Brasil plus a week at Excelsior Copacabana. Worth $1298.

10th PRIZE 30 hp. $582.

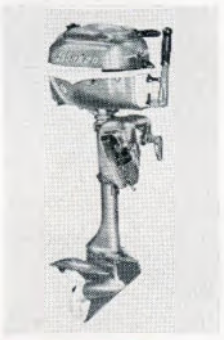


15th PRIZE 15 hp. $362.

25th PRIZE 10 hp. $321.

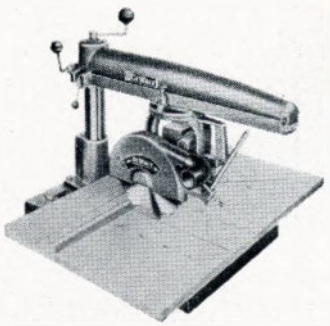
26th PRIZE 7½ hp. $241.

32nd PRIZE 5½ hp. $216.



38th PRIZE 3 hp. $146.

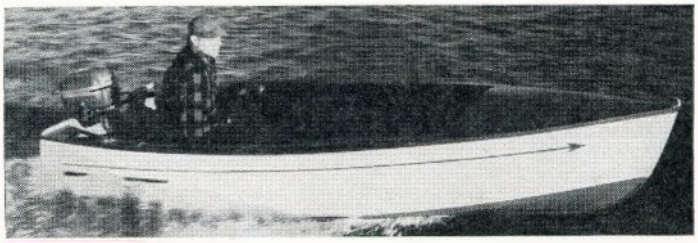
. . . six wonderful Johnson outboards, from big electric-starting Javelin to rugged little 3 hp—each of them famous for quiet and dependability.



13th PRIZE Power Shop by DeWalt. ¾-hp portable model with 9" saw blade and accessories including 12" lathe attachment, saber saw, shaper, dado head, bits, etc. Worth $429.

11th PRIZE Big 1½-horse DeWalt Power Shop stands on steel legs, has 10" saw blade, 12" lathe attachment, saber saw, shaper, dado head, disk and drum sanders, boring bits, chisels, assorted grinding wheels. Worth $575.

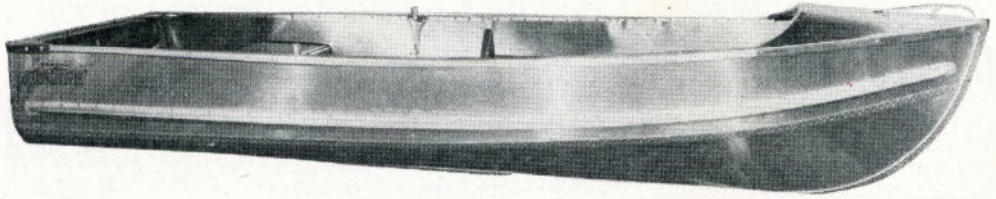
14th PRIZE Enjoy fishing fun with this $395 boat! A completely assembled, painted, equipped Roberts Kit-Craft 12-foot Sportster. . .

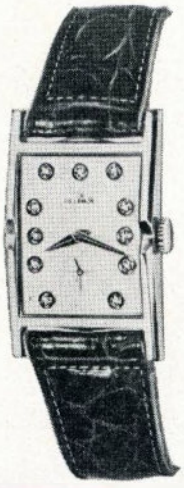


12th PRIZE . . . an assembled, painted and equipped Roberts Kit-Craft 14-foot Runabout, delivered to you. Worth $520.

16th-18th PRIZES Three After-Six formal-wear outfits for each winner: tails, tux and white jacket, each with trousers, plus shirts, ties, vest, etc. Worth $340.

19th-21st PRIZES Three 14-ft. Wagemaker boats, each weighing a mere 160 pounds, yet the rugged aluminum body will handle a 20-hp motor. Complete with three seats and extra cushions. Worth $335.





22nd-24th PRIZES Helbros $325 dress watches in 14-karat gold cases with the hours marked by 11 face-mounted diamonds.

33rd-37th PRIZES For each winner, $200 worth of Van Heusen merchandise—your choice of sport shirts, pajamas, swim suits, etc.

FOR MORE TURN PAGE

27th-31st PRIZES Five handsomely stocked guns in figured walnut with receiver engraved by hand by Spanish craftsmen, this is a special presentation version of the Marlin Model 336 lever-action big-game rifle. Each of five guns worth $225.

39th-48th PRIZES The finest in glass rods, South Bend's Presidential set, fly and spinning rods, handsomely cased, plus a South Bend SpinCast 1200 spinning reel—elegant $102 prize packages for each of ten very lucky fishermen.

it's easy! it's fun! read these rules
ENTER TRUE'S BIG ANNIVERSARY CONTEST

Read ALL the following rules and follow them carefully. You cannot win if you break any of them.

1.) TRUE'S ANNIVERSARY CONTEST is made up of three buildwords puzzles: No. 1 in the February issue of TRUE, The Man's Magazine; No. 2 in the March issue and No. 3 in the April issue. The No. 1 puzzle is repeated for your benefit on the next page.

2.) Complete all three puzzles, trying for the highest possible score. This score is arrived at by adding together the letter values of each and every letter appearing in your puzzle. PRINT your name and address on *each* entry blank and write your score for each puzzle in the box provided. However, on the entry blank for No. 3, write your *total score for all three* in the box marked "Grand Total." Also, write this Grand Total in the *lower left corner of the address side of your envelope.* When you've completed No. 3, mail *all three* puzzles together. Do *not* send in puzzles separately.

3.) Legible *copies* of the first two puzzles and their entry blanks may be submitted, but Puzzle No. 3 and its entry blank must be clipped from the April 1956 issue of TRUE, The Man's Magazine.

4.) Webster's New Collegiate dictionary will be the final authority on acceptance of words used in the puzzles. Any word *defined* in the main section of the dictionary, pages 1 through 997, will be accepted EXCEPT possessives formed with apostrophes (e.g. soldier's), hyphenated words (e.g. post-mortem), or proper nouns (names), or abbreviations (e.g. bldg.). Words may be repeated more than once. Plurals are permissible.

5.) The three complete puzzles—stapled, paper-clipped or pinned—are to be mailed to TRUE'S ANNIVERSARY CONTEST, FAWCETT BUILDING, GREENWICH, CONN.

6.) Entries must be postmarked not later than May 1, 1956.

7.) The three contestants having the highest correct grand total will each win one of the three "First Grand Prizes." The contestant having the highest correct score will be given his choice of a Golden Hawk, a Thunderbird or a Corvette. The contestant having the second highest correct score will be given his choice of the two cars remaining, with the third highest-scoring contestant receiving the remaining car. All other prizes will be awarded as indicated. Fourth prize to the contestant with the fourth highest correct score, etc. Neatness, legibility and originality will be judging factors in case of ties.

8.) The Editors of TRUE, The Man's Magazine are the judges of this contest and their decision will be final. All entries become the property of Fawcett Publications, Inc., and none will be returned. *Correspondence will not be entered into with contestants concerning this contest.*

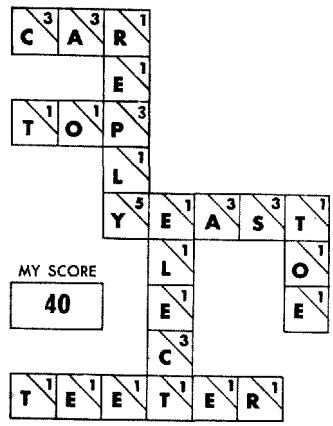
9.) Contest is open to any resident of continental North America except employees of Fawcett Publications, Inc., its wholesale distributors and advertising agencies, and their employees and families.

10.) Winners will be notified by mail and their names printed in TRUE.

TRUE'S ANNIVERSARY CONTEST IS FUN!

BUILDWORDS is an easy and simple puzzle. At right we have a completed specimen puzzle to show you the ropes. First, the key word is identified as a CAR, and the letters printed in the first single row of squares—much like a crossword puzzle. At the same time, each letter's numerical value (from the chart at bottom) is printed in the triangular space of each square. When the puzzle is complete, the numbers are added up, and the total—in this case 40—put into the MY SCORE box. All three puzzles are done in exactly the same way. Remember that all words must read from top to bottom or from left to right. The best way to raise your total score is to use high-value letters (e.g. Q, Z and X) as indicated by each letter value chart. PRINT your name and address on each entry blank, do ALL THREE PUZZLES and mail them *together. Do not mail any puzzles separately.* Try to use a medium soft pencil, since a fountain pen is apt to blot. Good Luck!

NOTE: FEBRUARY TOTAL WAS GIVEN INCORRECTLY AS 38.



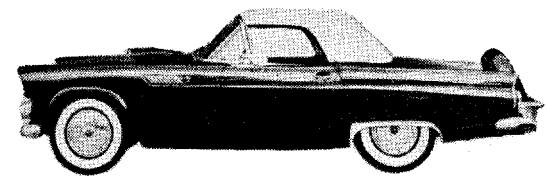
LETTER VALUE CHART

A-3	F-7	K-8	P-3	U-5
B-4	G-5	L-1	Q-9	V-3
C-3	H-4	M-6	R-1	W-2
D-2	I-3	N-4	S-3	X-9
E-1	J-7	O-1	T-1	Y-5
				Z-10

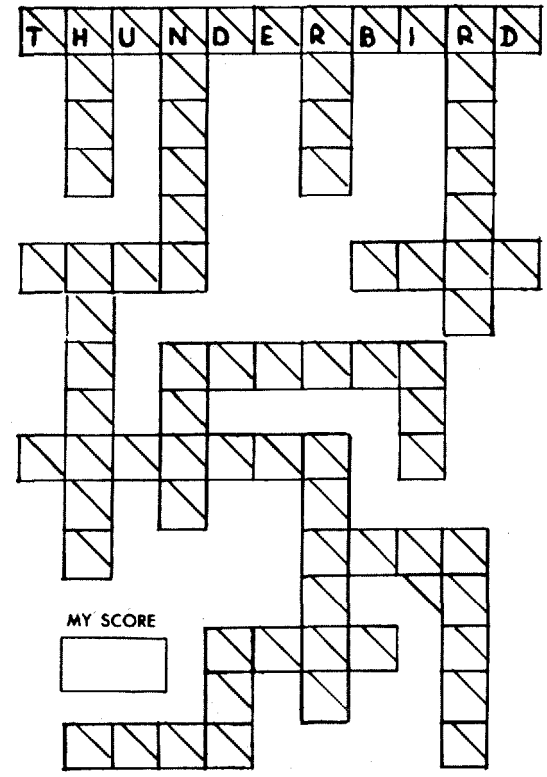
NOTE FOR SCORING

The total score of 40 (above) is arrived at by adding each letter value in the individual 24 squares. Do not add a letter twice, even when it is used in two words. For instance, the "R" in both car and reply is added only once for a letter value of one.

In cooperation with Contests Inc.



Contest No. 2



LETTER VALUE CHART

A-3	F-7	K-8	P-3	U-5
B-4	G-5	L-1	Q-9	V-3
C-3	H-4	M-6	R-1	W-2
D-2	I-3	N-4	S-3	X-9
E-1	J-7	O-1	T-1	Y-5
				Z-10

NAME .....

ADDRESS .....

CITY..... STATE.....

Fill out puzzle, print name and address in blank, clip along broken line; write Grand Total for Puzzles Nos. 1, 2 and 3 in space above and in lower left corner of front of envelope. Pin, paper-clip or staple all puzzles together and send them in.

Hell-for-Leather Horse

[*Continued from page* 43]

most of them separated from their pardners and all of them feeling uneasy about being taken away from their accustomed brush and held under guard. The first thing we did was ride slowly among them for about 20 minutes, getting them used to the presence of mounted men and to herd formation. They were spread over about two acres of ground.

"Then Dolan rode up to me and said, 'Let's go to whipping them out. Don't let that old gray horse under you go to sleep.'

" 'All right,' I answered. 'You and Wiley keep count of what you cut out.'

"In about 30 minutes I worked around to where they were close together and saw that their horses were blowing hard and in a lather. White Man had hardly broken a sweat. He and I had cut out more cattle than both the other men. I never had to pick up a rein after showing White Man an animal—he never missed a turn. The other men changed horses, and after awhile I changed too, though I hated to, for White Man was enjoying his work so much. Before noon, my other cutting horse, Jim, had sprained an ankle and the rest of the day White Man worked, never fagging, always keeping himself in reserve. At sundown when I unsaddled him in camp he trotted down to the Nueces River, waded out, pawed and rolled in the cool water, then climbed up the bank and began mowing grass."

Asa Jones used to trade in horses and has owned thousands of them while handling tens of thousands of cattle. He has ridden hundreds of horses and has broken more young ones than most ranchmen have ridden. In 1915 he bought a string of Spanish horses that had been driven across the Rio Grande from Mexico and put them on his Bullard's Gap ranch in the Big Bend country.

One horse was a little, ornery-looking, cat-hammed, slab-sided 3-year-old brown. By the next spring he had filled out somewhat, and when the *vaqueros* went to breaking horses they said he was the meanest of the *caballado*. He bit, kicked and pitched like flashes of lightning. He would snort like a mustang when he saw a man walk into the corral with a rope. Later, when under the saddle, if he saw a stray rider coming or saw anything else out of the ordinary, he would snort in the same way. That's how he got the name, Snorter.

Asa Jones never paid much attention to him until one day when he and some other men were running wild range horses to pen them. His horse played out, and as he was falling behind, a young cowboy riding Snorter caught up with him. Snorter was not panting. He was still not broken to the bridle and wore a hackamore (headstall) with reins attached to it.

"Let's change horses, if you don't mind," Asa suggested.

They changed saddles, and Asa got on the little bronc and, guiding him with hackamore, took out after the wild bunch. He ran them down and rounded them up. "That little bronc seemed to know as well as I did what we were doing and to be proud of helping to do it," Asa says.

As soon as Snorter was bridlewise, Asa began cutting cattle on him. This was long before one could call him a "gentle saddle horse." For a long time he would try to kick and pitch every time he got a chance. "But when he felt me solid on his back," Asa says, "he was the best horse I ever rode. I was handling thousands of cattle at this time, and before long I was using Snorter only as a cutting horse.

"The year he was finally broke, I got married. Ten years later he was one of our family. In 1926 I was operating a spread of 200,000 acres, leased from the University of Texas, north of Sierra Blanca. One day my wife was on Snorter at the tail end of a herd of steers we were rounding up. Not far from where she was riding, a big wild steer broke away for the hills. Snorter darted after him. Mrs. Jones couldn't hold him and thought he was running away with her. She stayed on him, and after he had got around the steer and brought him back to the herd, he quieted down again into the gentleness of a lamb."

Years passed, and Snorter was back on the ranch in the Big Bend, a large part of it fenced to hold sheep. When he got too stiff to cut on, Asa Jones set him free on a green seep on the side of a high mountain, where he could always get fresh grass. One day while helping round up sheep, my wife, riding behind the herd, saw Snorter join them. If a sheep turned back or veered off, Snorter got around it alone and put it back into the herd. He followed the herd to the pens, and then returned alone to his seep. At the age of 27 he died.

"I never passed his bones without tears coming to my eyes," Asa Jones says. "A man can love a faithful horse friend as well as he can love a faithful man friend." —**J. Frank Dobie**

Genius Gun Designer

[*Continued from page* 41]

cap was coming in and Jonathan Browning was able to invent two kinds of repeating rifles. One used an iron slide with five chambers, each loaded with loose powder and ball (a lever moved the slide from one side to the other so each chamber was successively in line with the bore). The other used a revolving cylinder, similar to the one Colt used in the first successful revolver.

Jonathan Browning founded a dynasty of gun makers and designers which is now in the fourth generation. Val A. Browning, John Browning's son, is now president of the Browning Arms Company, and a gun designer in his own right. Val Browning's son John supervises the manufacture of Browning guns at the Fabrique Nationale plant in Belgium and his son Bruce assists Val in his model-making shop at Ogden. The family bridges the gap between the muzzle-loading flintlock and the semiautomatic and full-automatic guns of today.

The Brownings have never built a gun factory. John Browning saw no point in building one as long as he could make good working arrangements with people who had factories. At one period or another he and his brother Matt had an organization which imported Browning guns made in Belgium. The present Browning Arms Company was incorporated in 1927, the year after John Browning's death, for the purpose of marketing Browning guns in this country.

John Browning did not begin with automatic weapons. He whittled the action of a gun out of wood when he was 14 years old—the year the railroad came through. Before he was 20 he made a rifle, using hand tools and the foot lathe his father had brought in a wagon from Iowa. He got his first patent, one for a single-shot rifle, when he was 24. His father died that year. John Browning and his brother Matthew S. Browning took over the gun shop in Ogden. They planned to make 600 rifles under John Browning's patent before they sold any. It is not clear how far they had got when they had a visitor from New Haven, Connecticut. He was T. G. Bennett, the active head of the Winchester Repeating Arms Company. He had heard enough about the new rifle to think it worth while to go all the way to Ogden to see it.

What Bennett saw was an improvement on the Sharps rifle, then a favorite of buffalo hunters in the West and long-range target shots in the East because it shot the heavy charges of powder and lead needed for either purpose. At the time neither of the two repeating-rifle models which Winchester was making would take such charges, not even the .45-70 cartridge the Army had adopted. The Sharps was strong because it had a breechblock sliding in a mortise and thus was well supported. Browning had kept this feature but he had done away with two defects of the Sharps—the heavy outside hammer, which jarred the piece when it was fired, and the firing pin that went around a corner. Bennett bought the patent and the existing stock of Browning rifles. Winchester produced the rifle in calibers from .22 short to the .50-110 express for more than 30 years.

From 1880 to 1900 John Browning was one of Winchester's greatest assets. He was never an employe of Winchester. He came east once a year with one or more models of guns he had designed in his workshop in Ogden and his brother Ed had made up. Winchester bought something like 40 of them outright, including 30 that were never put into production for one reason or another. Winchester had two objects: to prevent a competitor from getting a Browning design and to keep Browning happy.

And, by all accounts, Browning kept Winchester happy. Winchester wanted a slide or pump-action .22 rifle. Browning designed it and it became one of the most popular of .22s. Winchester wanted a pump-action shotgun, so Browning designed one. That gun, originally produced as the Model 1893 and, with some improvements, as the Model 1897, started the great change in the demands of shotgun shooters. At the time, the standard American shotgun was a double barrel with the barrels side by side. Shooters soon discovered that a Winchester repeating shotgun would shoot just as well as the best double guns and cost a great deal less.

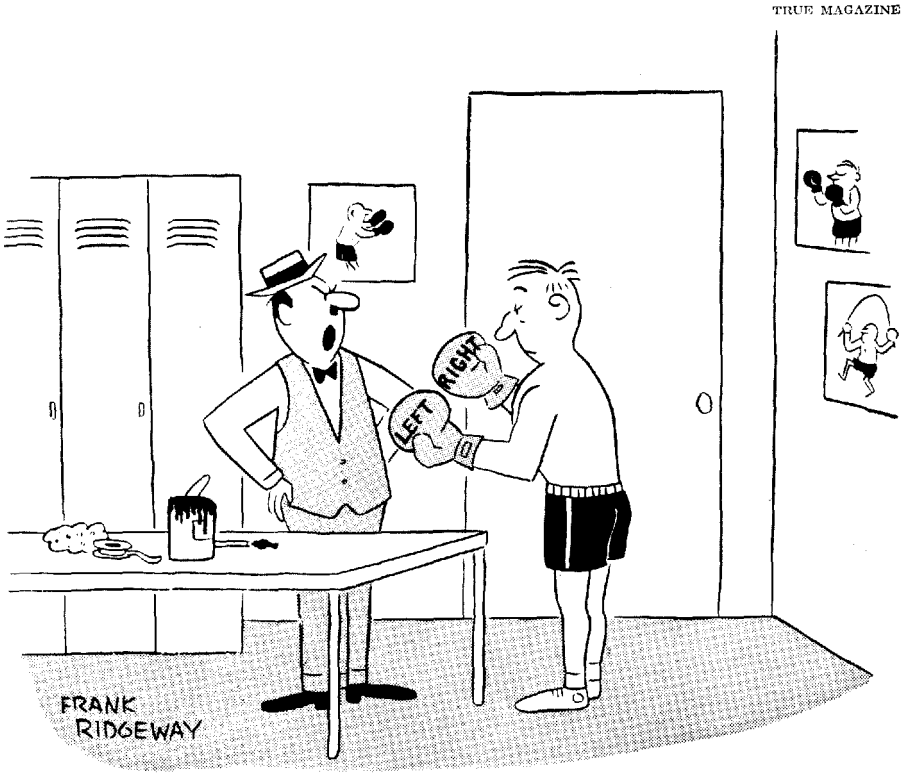
Today the chances are four to one that a man buying a new shotgun will buy a repeater—either a pump-action or a semiautomatic. Not that Winchester makes them all. Remington, Browning, Ithaca, Stevens, Savage, Hi-Standard, Noble, and Mossberg all make repeating shotguns in a field that has become highly competitive.

Browning designed the first successful semiautomatic shotgun and took great pride in his success. He brought the gun to Winchester about 1900. Winchester liked it and the late T. C. Johnson, who was for years afterwards Winchester's chief designer of guns, drew up the patent specifications with a care he later regretted. Browning was unwilling to sell the gun outright. For the first time in his long association with Winchester he demanded a royalty. He was probably egged on by his brother Matt who had long handled the profits of the partnership and who proved to be an able financier. Winchester had never given anyone a royalty on an invention and flatly refused to give Browning one.

Browning, sad and discouraged, took his gun to Bridgeport, Connecticut, and asked to see Marcellus Hartley, who was president of the Remington Arms Company. Browning was told that Hartley had died that day of a heart attack. Browning, more discouraged than ever, took a boat for Europe and went to Fabrique Nationale in Belgium where he was already known. He made a deal by which he sold the right to market his gun in every country except the United States. Not long after he came back he went to Remington and sold the company the right to make and sell his gun in this country. The terms were extraordinarily favorable to Browning. He not only got a royalty but he reserved the right to sell his gun, made in Belgium, in this country. Remington produced the gun in 1905 and made it for more than 40 years. The Browning Arms Company still has it made in Belgium for sale in this country.

T. C. Johnson began work on a semiautomatic shotgun as soon as it was clear that Winchester was not going to have Browning's gun. Long afterward he said

TRUE MAGAZINE



"Think you can remember now?"

it took him 11 years to design a semiautomatic shotgun that did not infringe the patent specifications he had drawn so tightly.

But I am getting ahead of the story. During most of the years when Browning was supplying Winchester with more designs than it could use, he was working on a full-automatic machine gun and semiautomatic pistols in which Winchester had no interest.

The story is that sometime in the 1880's Browning was shooting ducks while using the tall rushes along the shore of a lake as a blind. He noticed when he shot at a low-flying duck that the rushes close by were bent over in a much wider path than the shot charge would account for. He thought that the powder gas escaping behind the shot charge and expanding as it left the bore accounted for what he saw.

He went home and drilled a hole in an iron plate somewhat larger in diameter than the bore of a .44-40 Winchester rifle he had. He fixed this plate in front of the muzzle so the hole in the plate registered with the bore of the rifle. When he fired the rifle the bullet went through the hole without touching it but the plate was blown across the room. Browning knew that his guess was right.

He rigged a cap with a hole in it for the bullet to go through on the muzzle of the rifle. Then he hinged a long rod to the cap and to the operating lever of the rifle. When the rifle was fired the cap jumped forward, pulling the finger lever of the rifle forward so it opened the breech and ejected the fired cartridge case. The breech was closed, loading a fresh cartridge as it closed, by a spring. It is said that this rifle fired a magazine full of cartridges—14—in one minute.

Browning went to work to design a gas-operated machine gun. He succeeded in building the first gas-operated, fully automatic machine gun. His brother Matt offered it to Colt in 1890. It was adopted by our Navy in 1895, though the Army stuck to the crank-operated Gatling gun with many barrels. This Browning was the gun previously mentioned as the first fully automatic machine gun ever used in combat by a United States force. It was also used by the Marines in their successful defense of the foreign legations in Peking at the time of the Boxer Insurrection.

Browning completed his first semiautomatic pistol in 1897. The Belgians sent a man all the way to Ogden to see it. The Fabrique Nationale began making the pistol in 1900. When in 1912 FN had produced the millionth Browning pistol, King Albert of Belgium made Browning a Chevalier de l'Ordre de Leopold.

Before that, Browning submitted a semiautomatic pistol to Colt in this country. Colt still makes Browning pistols under the Colt name in several calibers. One of these in .45 caliber was adopted by our armed services in 1911 and is still the service pistol after 40-odd years.

Thus, Browning, who ceased to be one of Winchester's prime assets in 1900, became one of the prime assets of Colt,

of the Fabrique Nationale, of Remington, and, of course, of the armed services of the United States.

How did he do it? No one can explain his fabulous facility of invention. But it is possible to tell something about his way of working which is in sharp contrast to that common in modern arms plants. George Webb, who was in charge of research at Colt's when Browning was working there, told me that Browning had a drawing board but didn't do much mechanical drawing. He made free-hand sketches on stiff wrapping paper. When he had what he thought he wanted he would cut out what he had sketched (often two parts intended to work on each other) with a pair of scissors that was always on one end of his watch chain. He would put a pin through the two parts so they were in proper relation to each other and move them around experimentally. Then he'd go out to the toolroom and say to the foreman, "I want parts shaped like these." The foreman would say, "How thick?" Browning would indicate the thickness by holding the tip of his forefinger away from the tip of his thumb.

"Hold it," the foreman would say. Then he'd take out his rule and measure the distance between Browning's forefinger and his thumb.

"All right, John," the foreman would say. "Eleven sixteenths. We'll have it."

When all the parts had been made and the gun assembled, Browning would fire it just once. He would then take the gun down and note where the metal was brightened by friction or shock. He would make some modifications of the parts after this first test and have them hardened. The next time he tried the gun he fired several shots before he tore it down to see what was happening inside.

Browning's supreme confidence in his designs gave him a daring that startled the men he worked with. Cliff Warner, who as a young man made parts for Browning at Winchester, told me of an example. The first model of the .50-caliber machine gun was taken to the range to be test fired. The gun was ready to go when Browning took a paper bag out of his pocket. Warner thought at first the bag held a pound of sugar, but it was a pound of sand. Browning poured the sand into the open breech mechanism of the gun. The Winchester engineers were horrified.

Val A. Browning, company president and inventor, with his Double Automatic.

"If it won't tough that out, what good is it?" Browning asked.

The gun did tough it out.

Edwin Pugsley, a Winchester engineer who was research director when he retired recently, saw a great deal of Browning. He gave me another example of Browning's nerve. Around Labor Day of 1917 the Army demanded a .50-caliber, air-cooled gun for aircraft that could be tested at Aberdeen by November 12. Browning finished the gun and got it together at 8 or 9 o'clock on the evening of November 11—the day the war ended. It was no fault of Browning's that the Army hadn't ordered the gun months earlier than it did. Anyhow the gun had to be at Aberdeen Proving Ground in Maryland the next morning, armistice or no armistice, and it had never been fired. There was no place where it could be fired that night. Pugsley and Browning took a midnight train.

There was no proper mount for the gun at Aberdeen the next morning so it was put on a mount intended for a .30-caliber gun giving a fraction of the recoil the .50 caliber would produce. Browning calmly loaded 10 cartridges into a belt and began firing. The gun was almost uncontrollable but Browning hung to it through the burst, directing the barrel down. The big bullets struck the ground close in front of the muzzle so they splattered mud all over Browning. But the gun fired.

That gun was too late for World War I but it was the prototype of Browning .50-caliber aircraft guns which were later developed to a point which gave great service in World War II.

John Browning was working at Fabrique Nationale on his over-and-under shotgun when he died in 1926. His son Val A. Browning designed the single-trigger mechanism now used in that gun. I have fired thousands of shots with Browning over-and-under guns but I have never known the single trigger to double or fail in any way.

Val Browning also designed the new semiautomatic shotgun called the Double Automatic, which his company offered recently. John Browning's original semiautomatic shotgun, which the company still makes, uses what is called the long-recoil system. The barrel recoils the full length of a shell when the gun is fired. Val Browning's new semiautomatic uses the short-recoil system in which the barrel recoils only a fraction of an inch. The barrel floats to rest on balanced springs. Both barrel and breechblock return to battery position on cushioning springs.

Unlike other semiautomatic shotguns, the new Browning has no magazine in the usual sense of the term. One shell is loaded in the chamber and another pushed through a slot in the frame. The gun is so designed that it requires no adjustment when changing from light to heavy loads. The take-down is quick and easy and the barrels are interchangeable so it is a simple matter to have two or more barrels of different chokes for one gun.

The new gun comes in two weights—one model having a receiver of light-metal alloy which is furnished in silver gray or any one of several colors, and the other having a steel receiver. The model with the light receiver that I tried out weighs six pounds 14 ounces—right for a 12-gauge upland gun. The model with the steel receiver weighs nearly a pound more, as a gun for trap shooting or duck shooting should.

Val Browning, in designing the new gun, gave solid evidence that he is carrying on a tradition that began when his grandfather, Jonathan Browning, designed his first repeating rifle in 1831.

—Lucian Cary

Caribou or Bust

[*Continued from page* 33]

particularly young ones—often were that way unless they scented a hunter. Apparently their sight is as poor as their noses are good, for I'd long heard of the caribou's ability to pick up and run from the wind of a hunter a mile or more away.

After about 10 minutes of watching the caribou at close range, I began to wonder whether the critter was going to follow us across the tundra like a lost dog. But suddenly it turned and wandered off into the mists. Dan and I were excited—only 2½ miles out of camp (I had a pedometer) and we'd already seen game, despite the poor weather.

What we hoped to find was a couple of trophy stags with at least 20-odd points. A mature caribou has graceful antlers which curve over its back and then arch forward and upward. Such antlers will be palmated, meaning that the ends of the beams and branches have an enlarged, flat area from which points project, not unlike fingers from an outspread hand. On a big stag one of the brow tines (points closest to the eyes) will also be palmated, in which case the beast is said to have a brow "shovel." Exceptional heads have two shovels, often with the points interlocked like clenched fingers. The net effect is a wilderness look of uncommon beauty which I had long thought of as "a reach of antlers." We now set off on a search for trophies which was to become most *un*typical of caribou hunting in Newfoundland in the late fall.

The hunting procedure is simple enough: you follow your guide around all day, looking at bogs and barrens. In good weather, caribou wander about this open country and sometimes lie down on

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it. Ancient caribou trails crisscross the tundra, many of them so well used that they are a foot and more deep. The guides call these trails "roads," which is certainly appropriate—in many places there would be a pair of these, running parallel and about as far apart as car tracks. From the air you notice how several minor roads pinch together to form a few major roads, when there is difficult going such as a narrow neck between ponds.

We walked these roads for three days without seeing game. Moose-milk weather every day, too. But on the fourth day we were at least bolstered by a prophecy. Voices overheard from the guides' tent:

"I dreamed of a woman in white last night."

"Then we'll see a stag for sure today!"

Pause. Then voices from the hunters' tent:

"I dreamed of a woman last night, too."

"Was she dressed in white?"

"No."

"Well, what was she dressed in?"

"She wasn't dressed."

And so we went out to see if our dream had put the whammy on their dream. We'd negotiated Desperation Mile—a horror of a trail leading up out of the timber—and traveled halfway along the Home Bog when Lindo spotted a caribou. It was a small animal with spike horns perhaps a foot long. As the does often carry antlers, I wondered if this might not be a lady caribou. But Lindo —it was his dream, I think—said it was a small stag and offered to pass me the binocular to prove his point.

The stag was upwind of us, as before, and behaved exactly as the other one had. I checked the pedometer: we'd traveled 32 miles since the first encounter. Eventually the stag got tired of peering at us and wandered off. The remainder of the day was a soggy blank so we decided to break camp next morning and try another area. My desire for those antlers was increasing with each wet mile.

We had been camped near the South West Gander River (perhaps 25 miles southwest of Gander Airport), close by a road of the Bowaters Company, which was cutting pulpwood in the area. Now we were heading for Gander by truck, our final destination wrapped in mystery. Lindo had left a message at the nearest lumber camp to be phoned to our outfitter. The reply came—weakened by several camps listening in on the line.

"You're going to Robert's Harm," a man from the camp told us on our last night. He had the charming habit of some Newfoundlanders—if there was an "h" beginning a word, he dropped it; if the word began with a vowel, he put an "h" in front. Thus "arm" becomes "harm," "egg" winds up as "hegg"; while "hay" emerges as "'ay" and so on.

We searched the map for Robert's Arm but couldn't find it.

"Well, it may not be Robert's Harm, but it's a harm of some kind," the fellow said. "I knows a harm when I 'ears one."

Turned out we were going to Wall's Pond.

When the weather cleared temporarily

IT HAPPENED IN SPORTS

by John Lardner

THE MOCKINGBIRD'S LAST FIGHT

When Jack Doyle, the highly touted Irish heavyweight, got off the boat in the U. S. A. for the first time in 1935, he gladdened the eyes of his new managers, the Many McGovern Brothers of Brooklyn, for he was a fine, big, handsome lad. A few moments later, he gladdened their ears as well. In the taxicab, riding away from the pier, he sang, though not by request, one chorus of *The Minstrel Boy* and a verse and chorus of *When Irish Eyes Are Smiling*. He had everything.

In his first fight here, the Cork mockingbird licked (this may have been by request) his opponent. At that point, nothing stood between him and the top heavyweights in the country. The Many McGoverns matched him with Buddy Baer, in Madison Square Garden. They hired Dan Morgan, as shrewd a trainer as any in the business, to get him ready. Doyle then married the first of a series of beautiful wives—the actress, Judith Allen—and he and Mrs. Doyle and Morgan went off to the hills to train, and tickets to the fight began to sell like hot cakes.

"Shall we put on the gloves today, kid?" the trainer would say, every day.

"Tomorrow," Doyle replied, daily.

Connoisseurs will never forget the Doyle-Baer fight. The McGoverns took their friends to the dressing room beforehand, and pointed with pride to their new panther, who sang *Believe Me, If All Those Endearing Young Charms* as he waited. On the way to the ring, he hummed *My Wild Irish Rose*. In his corner, he waved to the new Mrs. Doyle at the ringside, and the big, eager crowd sat back to watch. Doyle was a classic boxer, of the upright, Britain-and-Ireland school. He jabbed Baer sharply with his left, and then crossed his right to Buddy's chin. The crowd, and the McGoverns, shouted wildly. Doyle stepped back, to give his huge opponent room to fall.

Instead, Baer shook his head irritably, and shuffled forward. He hit Doyle with a clubbing right hand on the head. The first round was less than half over, and the Mockingbird was still bouncing on his back like a ball, when the referee counted 10. Mrs. Doyle, in her seat in the first row, burst into tears.

"This is his last fight," she said to Dan Morgan. "I'll insist on it."

"So will the American public," Morgan said. He was right. Doyle returned to Ireland with a record of two fights and three marriages in the States, and became a wrestler. The Many McGoverns thought of him often. He owed them $6,000, and still does.

a couple of days later an Eastern Provincial Airlines plane flew us the 50-odd miles from Gander. I had noticed that when an EPA pilot came into the operations room off a flight, he'd remark first on the game he'd seen. Most of the pilots hunted and ours was glad to circle the Wall's Pond country while we looked for caribou. But though it wasn't raining, it was still overcast and we saw nothing. The plane landed us and took off. We were now completely cut off from civilization.

This snug log-cabin camp of outfitter Edgar Baird's is handy to a lot of hunting country and welcomes newcomers with proud records of kills carved on the log walls. Item: "R.M. Lee, Woodmere, N. Y., 41-point stag. 9/21/51." Item: "Sol Goldberg, Hudson, N. Y., 26 pt. stag, 40" wide. Oct. /53." Another inscription told of Lee returning the following year and taking a 32-point stag and a 400-pound bear. Inside, on the door, I learned that my friend Charlie Liedl, the wildlife artist, had killed a fine stag with two shots the year before. He had sketched the head on the door.

What cheered us most was an anonymous message penciled on a log near the wash basin: "One nice stag. Beautiful weather. Best time I ever had."

It didn't rain at Wall's Pond. It snowed. For a day and a half. We were out in it, of course—here was a chance to see fresh tracks. Now the barrens and bogs had a look of bleakness such as I had never seen before, anywhere. This was *real* moose-milk weather. For the first time I began to get a little impatient for the lunch break, when we'd build a fire in the shelter of thick spruces and get dried out temporarily.

By now we didn't feel normal unless we were soaked from the crotch down, so that when Dan remarked one day that his knee joints ached, Sam had a ready explanation. "All this water has washed away your natural oils," he said.

"I wish we had some cold caribou tongue," Lindo remarked. "Do you like tongue?"

I said I did, thereby almost spoiling a joke he wanted to set me up for. It seems he and Sam were dressing a caribou when the sport who had shot it saw Sam cutting out the tongue.

"We're not going to eat that, are we?" the fellow said. "I wouldn't eat something dirty that came out of an animal's mouth."

"What about a hegg, sir?" Sam remarked, crushing him forever.

Since it had been 32 miles between the first and second caribou, we began to hope that the passage of another 32 miles might bring us to another stag. But this milepost slipped by in a swirl of snow with never a glimpse of game. Mile 70 passed the following day and when we had to quit because the plane was due, we'd walked 84 miles. We'd seen a cow moose, some snipe and a few flocks of Canada geese as wild as the wind off the tundra. And the tracks of two caribou which we failed to catch up with in the heavy timber.

Flying out, the EPA pilot rocked his wings to catch our attention and pointed down at a snow-clad bog. The sun shone

weakly through the overcast but you could see the tracks plainly—several sets converging upon one deep road that ran between some little ponds and then disappeared in the timber.

"The migration has started," Lindo said quietly. "At least you know that."

We'd used up our two weeks with the guides and decided to risk one more week on a third hunt with another outfitter. Those trophies would have to get in the open soon. Hurrying while the weather favored us, we flew into Berry Hill Pond the next morning with Calvin, Don and Brett Saunders. This country is farther south and west than our two previous locations and Brett has a pleasant log-cabin camp on the pond. His son Calvin operates a similar place 17 miles to the east. According to Brett, the area is in the path of a main migration route. On November 1, 1951, when he opened up the area, he and five hunters saw 144 caribou the first day and in five days counted more than 300. Stags came across the barrens with harems as large as 25, though the average was smaller.

The biggest head taken that year had 27 points. The following season every caribou hunt made there was successful and his clients have done well ever since. It was in this country with Lindo as guide (he worked for Brett then), that George H. Lesser of Johnstown, N. Y., shot the magnificent caribou with 44 points that won the Boone & Crockett Club award in 1951 and since has rated No. 2 on the world-record list.

Our first hunt was most encouraging. The sun came out and shone all afternoon. It was warm enough to walk about in shirtsleeves and when we got to a high barren, we could see for miles.

Presently we wandered down a slide of rocks to a hillside barren dotted with spruce and tamarack. Don Saunders, Brett's brother, was guiding us with Cal. Soon Don found a clump of caribou moss hanging from a blueberry bush. Then, a little farther on, another bunch plucked from the moss.

"This is really fresh," Don said. "Maybe this afternoon's feeding."

Silently now we eased ahead. Don was following a faint winding trail, pointing occasionally with the haft of his ax at fresh bits of moss. We came to a little patch of trees and were halfway through when there was a snort from up ahead. I caught a glimpse of a caribou running swiftly, tail erect and flashing white through the trees. Dan and I ran flat out through the remaining cover but didn't see the animal again. The guides circled, hoping to drive the caribou back past us, but the cover proved too thick.

It had been 56 miles between caribou, which is probably some sort of a record. But then, so was the weather. And now it had changed.

Dan Holland and I were unquestionably the two eagerest caribou hunters in Newfoundland at this point. Both of us were forever glancing through our rifle 'scopes at gray patches in the distance, hoping to spot game that a guide missed with the binocular I'd lent him (we never did). Dan's rifle was a Winchester Model 70 in .270 with a Weaver variable-

power 'scope of 2½ to 5X. Mine was one of the new Winchester Model 88 lever-actions in .308 caliber. I'd put a Weaver K4 'scope on it in one of that company's new pivot mounts, a hinged affair that lets you flip the 'scope out of the way to use the iron sights in case it is snowing or raining hard.

It turned out that we were the most conservatively gunned hunters the Saunders had seen in a while. Most of their clients came with .300 and .375 magnums.

"The first time I saw a .300 magnum was the last time I got close to one about to be shot," Don said. "My hunter asked if he could rest his rifle on my shoulder for a long shot. Two days later I was still deaf."

In camp that night Brett told about a client who had brought a .375 magnum which the fellow shot like an Olympic champion.

"Throw a rum bottle in the river and he'd break the neck every time," Brett said. "Then one day I showed him a nice stag at 60 yards and he went to pieces. He shot it in the hind quarter, the nose, the ear and the throat. By then he'd run out of cartridges."

"What did you do?"

"I had to walk a mile back to camp for more ammunition."

Don told us that most of their game can be stalked to within 70 yards, owing to the thick spruce cover encircling the bogs. "But I've seen guys get so excited they missed standing caribou at 50 feet," he said.

On this sobering thought we went to bed. The pedometer stood at 90 miles even.

During the night the wind changed around to the east again, bringing more foul weather from the Atlantic nearby. Out on the barrens, long since cleared of their snow, the clouds often blanked out the tops of the spruces and hid the horizon, so that all feeling of height and direction vanished—one might easily have been on some windswept Tibetan plateau.

But the need to keep looking at the next barren, or the next bog—"Last year we found as nice a stag there as ever I did see"—kept us moving. We knew by now that it was unlikely that we'd find game in the open in that pelting rain, but there was always the chance a restless stag might decide to cross a bog we were examining. Sometimes my imagination pictured a fine stag so strongly I'd have to blink to make it go away.

We racked up 14½ miles that day. There was always another bog to look at. . . .

The next day was our last before the plane was to come by prearrangement. It was so fierce in the morning we couldn't go out, and the afternoon was little better. But there was that moose milk. One had to qualify for that by getting wet. By mile 107 we felt we'd qualified.

The day the plane was due was a beauty.

It rained.

"There's a far barren I haven't shown you," Don said, so we reached for our rifles and took off, gambling that the plane wouldn't come.

Traveling and hunting, it took us till noon to reach the vicinity of that far barren of Don's. Meanwhile the rain had stopped and it was merely overcast.

"We'd better have lunch before looking," Don said. "If they're there we'll be busy all afternoon."

An hour later we were slipping through the last of some screening spruces to look over a huge bog. Right in the middle of it and about 300 yards away stood two stags, one of which had a head worth inspecting at closer range. In sudden excitement we began a long stalk that would bring us downwind and within good range of the animals. But we hadn't gone a quarter of mile when this detour revealed another bog.

"Lord, look at all the caribou over there!" Dan said.

A big stag and several smaller animals were walking toward the far side of an island of spruce trees. As we watched, fascinated, the stag prodded a doe in the rump. She jumped, but stayed close.

"This is a good head," Don said. "Let's take him."

In single file, crouching and at times crawling, we began to cross the bog after the caribou had passed behind the island. Presently another caribou appeared in full view of us. We became motionless lumps on the bog. The caribou ran a few steps, head high, and then seemed to look at us.

"If that old doe spots or winds us, we're finished," Cal said. "She'll spook the others."

Finally she disappeared behind the island and we resumed.

"Damn!" said Don.

We had come to a long pond previously hidden from view. So we backtracked a couple of hundred yards and began again on another route. At last we reached a point about 30 yards behind the tip of the spruce island when the big doe reappeared, trotting and looking mighty nervous. She was only 80 or so yards away.

We froze on all fours. I looked down and noticed my wrist watch was an inch under water. In an agony of apprehension, I looked up and followed the doe with my eyeballs as she slowly passed behind the trees again.

Then we scuttled to the cover and Dan snatched off his 'scope caps. None of us could see much except Dan, who was in a little opening. But through the screening brush I could occasionally catch a flash of white as the caribou milled about.

The old doe suddenly showed up again, about 50 yards out this time. She looked about wildly, then broke at a gallop for the others.

Dan put up his rifle and shot.

Then we all poured through the little opening in a frenzied tangle. A fine stag stood shakily to one side of his harem. There was a streak of blood on his right shoulder big enough to see plainly at 150 yards. I had an impression of caribou galloping in every direction.

"The government just revoked the taxes."

The stag looked as if he would fall at any moment.

"Don't shoot," said Don. "He's done."

The caribou was moving now but with great difficulty. Suddenly he got into a little gully and was gone. We stood in flat-footed astonishment, unable to move for a moment. Then we were racing across the bog.

Somehow the stag had used the gully and the cover of a few scrawny tamaracks to leave the bog unseen. We began to follow his blood trail, one of us always looking ahead in the deepening forest. Calvin ran ahead to a bog he thought the animal would have to cross and presently we heard him shout in the distance.

The caribou had crossed the next bog and gone into a barren dotted with Christmas-tree spruces. Here the trail became faint, with only an occasional blood spot. In places you could tell he had passed only because some of the moisture beads had been shaken from a bush.

An hour passed as we tracked to the edge of a wide bog. And here we lost him completely.

Late in the afternoon we started back. We had checked all the bogs in the direction the stag seemed headed but they were empty. Just once we saw a caribou—it was the old doe again. She went steaming along the edge of a barren about 100 yards away, stepping high and fast like a trotting horse.

We looked in the huge bog where we had seen the two stags earlier. Empty. Don detoured us to another we hadn't seen before. Empty. With a desperate look he started off to one more bog. And smack in the middle of it we found two caribou. Lying down! A fair stag and a pretty good one.

"What will the big one go?" I asked.

"Twenty-five, maybe 30 points," Don said, studying it with the binocular.

We took off through the woods at a wild run to approach the animals from the other side of the bog. Halfway there I glanced through a hole in the woods and noticed that the caribou were standing now. At last Don Saunders slowed. I noticed that Dan was unlimbering one of his cameras as we came to the edge of the woods.

"This is for both of us," I said. "Which one do you want?"

"The hell with it. That stag I shot will die for sure."

I couldn't talk him out of it. Then I was kneeling at the edge of the bog in the water. I remember thinking with surprise that the water felt refreshing. I glanced at the stags; the one on the left was the one I wanted. Then I got out my bandanna and began to dry the front lens of the 'scope.

"The stag on the left has crossed over," Don said quietly.

I thought he meant it had crossed a little pond. I threw up the rifle at the left caribou, aimed for the heart and squeezed off a shot.

The stag jumped and took off at full gallop. I swung and shot again and missed him clean. Now the stag turned almost dead-away, to rush up a little rise. The cross hairs settled miraculously between his shoulders for an instant and at the shot a cloud of hair flew. That did it. The stag slowed, made a wobbly little circle or two and fell.

As we ran toward him, I realized for the first time that I had shot the wrong animal. The stags had changed as I wiped my 'scope. There at the edge of the bog was the better caribou, staring and running a little and then stopping to stare again.

My stag lay beside a little pond in the twilight. A full moon shone above low clouds. The guides began to get out of their packs to go to work. From long habit I pulled out the pedometer— 118 miles! Suddenly I began to feel good. We had been snakebit from the start by poor weather but now it had helped us. And we had at last seen caribou on their ancient roads; wild, almost unbelievable animals.

An ax rang against an antler of my stag. He had a handsome reach of antlers and that was what I had come for.

"Look down there," Dan said.

The other stag stood poised at the edge of the bog, gray and white against the black-green of the spruces. It was a sight well worth coming to Newfoundland to see again.—**Peter Barrett**

HUNTERS: Because of the growing popularity of caribou hunting in Newfoundland, arrangements for a trip this fall should be made *early*. Write The Travel Editor for information on outfitters, rates, clothing and air-line schedules.

Case of the Deadly Landlord

[*Continued from page* 44]

local farmers to help make ends meet by selling homemade delicacies to travelers and accommodating overnight lodgers. The Benders, who had 20-20 vision when it came to spotting a dollar to turn, also decided to cater to wayfarers. The old man put up a big sign right at the edge of the property, where strangers in transit over the highway couldn't miss it, advertising meals and lodging for the night.

The interior of the Bender cabin, which consisted simply of one large oblong room and a small kitchen in the rear, underwent a simple but important alteration in order to accommodate travelers. The large room was partitioned in two by means of a huge piece of gray canvas. The canvas was nailed to the ceiling and to each side of the cabin and was stretched across it. It was necessary to crawl under the canvas, which was not nailed to the floor, to get from the area in front of it to the quarters in the rear. The only two windows in the place were in the rear of the cabin.

There were two beds on the family side of the canvas, the old folks occupying one, Kate and her brother the other. There was a pallet on the public side, to accommodate a wayfarer or, in a pinch, two wayfarers. A large oak table on the public side, placed parallel to the canvas, was used for the display of homemade bread, jams and jellies and for the serving of meals to travelers. There were two benches for seating diners, one on either side of this table. The bench on the inner side was flush against the canvas. If that bench could have talked, it might have told quite a story.

The Benders hadn't been accommodating travelers very long when the first shadow of coming events fell across Osage Township. Leroy Dick, the township trustee, and the only law-enforcement officer in the region, received a letter from a man in Chicago whose brother had apparently dropped through a hole into space. The missing brother, some three months previously, had mailed a letter postmarked Cherryvale. Then silence.

Dick, a well-nourished political hack in his middle 20's, with an open face and a round haircut, paid practically no attention to the letter. All he did was answer the writer suggesting that maybe the man's brother would turn up in due course.

A few weeks later Dick received a letter from a woman in another part of Kansas whose elderly parents had written from Cherryvale some weeks before, then lapsed into inexplicable silence. Dick didn't do anything about that letter, either, except to answer it and suggest that the old folks would no doubt eventually be heard from.

As the months wore on, the authorities of other hamlets and towns along the highway began to receive letters similar to the two Dick had received. By the spring of 1873, two years after the Benders had first rumbled over the horizon, more than a score of wayfarers had driven onto the highway and continued straight into oblivion. Word had spread beyond the confines of Osage Township that the region was a dangerous place, possibly because of roving outlaw bands, and some travelers were now by-passing it. Since the penny-counting farmers around Cherryvale were finding their business with transients dipping, the situation was serious.

There was one odd thing about the Benders that was odder than anything else. They never invited anybody to their house. The boys around the cracker barrel in the general store would have given almost anything to get an invitation to visit and hold hands with Kate, but they never got it.

The only resident outsider who ever set foot in the Bender cabin was old Doc Cornwall, Cherryvale's crusty general practitioner. He went out one day to treat Ma Bender for a bad chest cold. Later, to the proprietor of the general store, old Doc said, "That Bender place stinks. Smells like somethin's dead in there."

One day in April, 1873, Trustee Dick called a special meeting in the Cherryvale schoolhouse for that night. After calling the meeting to order, Trustee Dick pulled a letter from his pocket. It was from a man named Longcohr who lived in Independence, a few hours' drive to the southwest. Longcohr said that a brother of his, George, and George's young daughter, had recently set out on a drive through Osage Township, but after dropping a postal from Cherryvale, they had not been heard from for several weeks.

Old John Bender, sitting in the rear of the room, arose, cleared his throat and asked, "What did you say that man's name was?"

"The man who's missing is named George Longcohr," said Dick.

"And you say he was traveling with a little girl?"

"Yes."

"How old was that little girl?"

"Ten. Ten years old."

"They was at *our* place," said Bender. "A man by that name and a little girl stopped at our place one night 'bout five weeks ago. We couldn't put them up. Didn't have room that night."

"Where'd they go when they left your place?"

"I told them to try the Miller place."

A farmer named Miller, who lived about half a mile from Bender's, sprang to his feet. "*I* never seen nobody like them two you describe!" he shouted to old John.

"Maybe they went to some other place," said old John, addressing the trustee and ignoring Miller. The meet-

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"Well, then—how about an apple pie?"

ing gradually disintegrated without getting anywhere.

The next morning there appeared in Cherryvale a kindly, casual man in a baggy gray suit who identified himself as Dr. William York of Independence. Ambling into the general store, he told the boys he just happened to be passing through, and asked if anybody knew of a couple of patients of his who seemed to be missing—a man named Longcohr and his 10-year-old daughter.

"Ain't that the man and the little girl that old John Bender spoke about at the meetin' last night?" one of the men asked. "Sounds like the same."

"Bender," repeated the doctor. "John Bender. He might be able to tell me something about them. Where does he live?"

The following day Kate and young John appeared in the general store. "I sent some doctor out to your place yesterday, Kate," said one of the crackerbarrel boys. "He wanted to know about a man and a little girl that's missin'."

"You sent somebody to our place yesterday? A doctor, you say?"

"Uh-huh."

"I didn't see no doctor at our place."

"That's funny. I told him just how to get there."

"Well, he didn't come to *our* place."

While Kate went about the business of making some purchases, young John just stood there, breathing through his mouth, his half-closed eyes focused just over the head of the fellow who had imparted the intelligence to Kate. Then he tilted his head back, looked at the ceiling, opened his mouth and let go with that blood-curdling cackle.

A couple of weeks after Dr. William York had appeared in Cherryvale, a brisk man of about 35, with a small, curly, black beard and penetrating brown eyes, and wearing striped pants and cutaway, alighted from a well-groomed black horse and walked into the general store. He identified himself as Col. A. M. York. The boys around the cracker barrel immediately sat up and took notice. Colonel York, a rising attorney from Fort Scott, way over on the Missouri border, was a Civil War hero renowned for his derring-do. His physician brother, he disclosed, was missing. "I know he was going to stop here in Cherryvale," he said, glaring suspiciously at his listeners.

"Seems to me," said one of the crackerbarrel boys, "your brother set out for the Bender place but never got there."

When, late in the afternoon, Colonel York galloped onto the Bender farm, he was met in the yard by John Junior. The colonel asked John if he remembered his brother, the doctor. John didn't answer; he just looked over the colonel's head at the sky. The sky was slate gray, and thunder was rumbling off in the distance.

Kate, who had appeared in the doorway, beckoned to York. "Come in!" she said, smiling and extending her hand. "Come in and sit down."

The colonel got right to the point. Had Kate seen his brother? Kate shook her head. She said she had heard that his brother had been in Cherryvale and had, in fact, been directed to the Bender place. But he had never shown up. Kate suggested that Colonel York question the Millers. "They was the people put up that man and the little girl your brother came askin' about."

Colonel York bowed and thanked Kate and set out for the Miller place. He was back within the hour. Darkness had descended, the rain had begun to fall and the clapping of the thunder was near at hand.

The bench farthest from the canvas had meantime been covered with jars of jams and jellies so the colonel was obliged to sit with Kate on the bench flush with the canvas. "The Millers tell me they never laid eyes on my brother," York said, studying Kate under the rays of the oil lamp. Kate was thoughtful for a few moments. Then she leaned closer to the colonel and, in that throaty voice, said, "Colonel York, the Millers can't be trusted. Everybody will tell you that."

Just then young Bender popped through the door holding a lantern. He stopped in front of the table, looked at Kate and the colonel, then threw his head back and let go with that crazy cackle. Then he disappeared under the canvas.

As Kate and the colonel sat there, conjecturing on what had happened to his brother—and, also the traveler Longcohr and his daughter—there seemed to be a great hustle and bustle behind the canvas.

Suddenly everything behind the canvas was dead quiet. Kate got up. "You sit right where you are, Colonel York," she said, "and I'll go fix you a cup of tea." "But I don't feel like a cup of tea," the colonel protested. "Oh yes you do," said Kate, going to put the kettle on.

If Kate was stubborn, so was the colonel. He just wasn't in the mood for tea. So, as Kate disappeared behind the canvas, the colonel got up. "I'm going now, Miss Bender," he called through the canvas. Kate didn't answer but John Junior reappeared. He was carrying a stone jug. "Sit down," John Junior said to York, winking, but looking just over the visitor's head. "Sit down at the table there and I'll give you a nice drink."

"I'm not thirsty," said the colonel.

"But it's cider," said John Junior, tapping the jug. "Hard cider. Real hard." John Junior took hold of the colonel's sleeve. "Come on."

"Thank you just the same," said the colonel, retrieving his sleeve, "but I really must be on my way. Good night."

Next day Kate rode into Cherryvale and had a little talk with the man who ran the general store. She wanted to know which one of the cracker-barrel boys had directed Colonel York to the Bender farm. The proprietor took the corncob pipe from his mouth and, using the stem as a pointer, indicated a character known as Happy Jack Rader. Rader, a shabby little man with a thin, flushed face and tiny, bloodshot eyes, was known as Happy Jack because he was usually half plastered.

Kate gave Happy Jack a big hello and invited him out to see her that night.

ZULU MASSACRE

In 1828 a Zulu king named Chaka ordered one of the most fantastic sacrifices in recent history. His mother, Unmandi, the dowager queen, had died after a long illness. Throughout her illness the people had made offerings, but to no avail. Chaka's grief and anguish knew no bounds. And when he spoke, the people trembled. A man might die in battle, or at the hands of a lion, and that was all right. But when a queen died for no apparent reason, then the people's love was not strong enough and they must suffer for their neglect. The old queen was the only person Chaka had ever loved, and now the mourners knew they were in for a terrible time. They were right.

More than 15,000 people gathered in the area surrounding the hut where the queen lay in state. Among them was a white trader named Henry Flynn, who witnessed the proceedings. Also among them were Chaka's two stepbrothers, who had never been fond of Chaka or of the queen.

Chaka emerged from the hut and flung his arms skyward and began the opening lament. His subjects started screaming in chorus and soon they were tearing off their clothes and lashing themselves into a fury. The tumult lasted throughout the night, and in the morning hundreds of people lay dead or exhausted in the streets. The crowd had now grown to more than 60,000 people.

Inflamed beyond reason, Chaka ordered a group of men executed. Then, pleased at the flow of blood, he ordered a general massacre and the soldiers fell to with their spears. Trader Flynn estimated that when the killing was over at least 7,000 people lay dead.

The queen's funeral was held the next day, and ten of the tribe's choicest virgins were buried alive as a sacrifice. Not content, Chaka had corraled several thousand cattle and turned them over to the soldiers for sacrifice. Then Chaka said that he was going to move the capital to Tuguza where a year of mourning would begin. When Chaka announced the terms of the mourning the people groaned and his stepbrothers muttered among themselves. The terms were harsh in the extreme.

Chaka said no new crops would be cultivated. All milk would be poured on the ground to waste, and no children were to be born. Any woman who became pregnant would be slain along with the men who serviced them, husbands or otherwise. The people groaned when they learned of Chaka's demands, and his stepbrothers, Dingaan and Mhlegana, frowned in displeasure.

The day the move to the capital was completed the two brothers came to Chaka on his throne and said, "Oh, wise King, our brother, something troubles us mightily."

"What troubles you?" asked Chaka.

"There has not been enough sacrifice for our beloved queen," they answered.

"Not enough?" replied Chaka, whose lust for blood had not quite died.

"No, brother. One more sacrifice must be made. We ask your permission to make it."

"Granted!" cried Chaka, standing to his feet. His smile changed to astonishment as one of the brothers' servants, Satain, plunged his curved knife in Chaka's back. Chaka fell to the ground, his blood flowing into the caked earth.

Dingaan then became king and the ordeal of the Zulu people was over.—**Guy Rhoades**

Pleasantly surprised at the invitation, Happy Jack grabbed it. When he dismounted from his steed and went to the door of the Bender cabin that night, he had certain things in mind, but he was in for a disappointment. Kate sat him down on that bench that was flush with the canvas, took a seat on the opposite side of the table and produced a deck of cards. "I'm going to tell you your fortune," Kate said. "The cards will tell me how long you're goin' to live."

Kate had just started to shuffle the cards when she accidentally dropped one to the floor. "I'll get it," said Happy Jack, leaning down and crawling under the table. He had no sooner touched the floor than he heard a terrific thump on the canvas. "What was *that!*" Happy Jack inquired from under the table.

"I didn't hear nothing," said Kate. "Have you got the card?"

Rader not only had the card but he was getting a good gander at Kate's legs. Thus, instead of coming up on the inner, or canvas side of the table, he emerged on Kate's side. He was just getting down to business when there was a series of fierce thumps from the other side of the canvas, as if somebody were hitting it with a club. "What's going *on* there!" Rader asked, his little pink eyes wide with wonder. "It's my father," Kate said. "He's punishing John because John drinks."

"But I don't hear John yelling or nothing," said Happy Jack. He turned and looked at Kate, the rays of a table lamp flush on her face. Her eyes were hot slits and her mouth was opening and closing although no sounds were coming out. Rader felt a shiver traveling up and down his spine.

Right then there came the sound of voices outside—the pleasantest sounds Happy Jack Rader had ever heard. Three travelers entered, seeking lodging for the night. Kate said the place was all filled up. *"I'll* show you where to go!" Rader said to the travelers. The travelers said they didn't want to put Happy Jack to any trouble. "No trouble," said Happy Jack, looking at Kate, who was still sitting there at the table with the cards, and at that canvas. "No trouble at all."

Then one day a neighboring farmer named Silas Toles drove onto the Bender place to tell old John that his cattle had broken loose and were grazing on his land.

Toles, who was accompanied by a hunting dog, tried the door, found it open and walked in. Nobody was there. Toles immediately noticed a strong odor. So did the dog.

The dog darted under the canvas into the quarters that had been occupied by the Benders and began to worry at a hooked rug under the kitchen table. She wanted to get at something under that rug. So Toles shifted the table and pulled back the rug. Now he saw that the rug covered a trap door.

When Toles lifted the trap door his nostrils were assailed by a sickening stench. The door opened onto a cave about six feet deep. At the bottom Toles saw the corpses of two men.

Keeping his own counsel, he put

things back as he had found them, got into his wagon with his dog and drove to Fort Scott. Colonel York was sitting in his law office when Toles walked in. "Yes?" the colonel said briskly. "Can I be of service?"

"I've just been in the Bender place," said Toles. "All the Benders've gone and there's a cave under a trap door in that place and there's a couple of bodies in the cave."

Next day, when York, Toles and Trustee Dick stood looking down into that cave, nobody spoke for a while. Then Colonel York turned to the trustee and said, "They must have been fiends, those Benders."

Colonel York stood there, tugging at his little black beard, deep in thought. Dick, prowling around, looked underneath a large mohair sofa. "Look!" he called out to York. "Look, Colonel! There's a sledge hammer here."

York deduced, for the benefit of the trustee, that the two men who were now rotting under that trap door had been lured by Kate to a seat on the bench that ran flush against the canvas. Then, on a signal from Kate, either the father or the son, standing there behind the canvas, took the sledge hammer and rained

a blow against the canvas and onto the head of the man on the other side.

"But the Benders are such religious people. They go to church every Sunday."

Colonel York glared at Dick. "Religious, hell!" he snorted. "They've been using religion to cover up mass murder for profit. There's no telling *how* many people have been murdered and robbed. I think I'll take a look around outside."

There was a cherry tree on the Bender acres—just one cherry tree. It was about 50 feet behind the house. Colonel York stood briefly at the back door, looking around, then made a bee-line for the cherry tree. The ground around the tree was soft.

What was under the loose earth was the corpse of a man whom Colonel York identified as his brother, the doctor. The rear of the doctor's head had been bashed in and his throat had been slashed from ear to ear.

There were other soft spots on the Bender acres, not far from the back door. By late afternoon, the diggers, reinforced by regional farmers, had unearthed 10 more bodies, including those of the traveler Longcohr and his daughter. All of the victims, like Dr. York, had been bashed and slashed.

The diggers kept at it for a week. They found more than 30 bodies.

News of the terrible discoveries on the Bender farm spread through Kansas like a prairie fire, and the morbidly curious peasants swarmed to the place like locusts. By the time they got through taking away souvenirs, about all that was left of the Bender homestead was the foundation.

Trustee Dick, who had the responsibility of apprehending the Benders, unearthed a clue near the town of Thayer, some 15 miles to the north of Cherryvale. It was the Bender prairie schooner, the horses hitched to it, abandoned on a lonely byway.

Next, Dick uncovered another clue—or so he thought—when he questioned the railroad station agent at Thayer. The station agent remembered selling four tickets to a bearded man, a fat woman and a young man and a young girl. "They was headed north to Kansas City," the station agent assured Dick.

The butchering Benders had not headed north. Their true destination wasn't to come to light for many years. Trustee Dick darted around the Middle West for 15 years, following up tips.

It wasn't until 1909—35 lingering years after the butchering Benders had dropped from view—that the secret came out. A man by the name of Downer, who had been a neighbor of the Benders back in the 70's, summoned his relatives to his bedside in Chicago and said he had a tale to tell.

According to Downer's confession, Colonel York was strongly suspicious, after he first visited the Bender place, that the Benders had guilty knowledge of the whereabouts of his brother. Knowing that Trustee Dick was ineffectual as a detective, York quietly slipped back into Osage County and rounded up Downer and five other farmers, including the man on whom old John had cast suspicion at the town meeting. Late in the night, the party descended on the Bender cabin.

The Benders, were kidnapped and driven out toward the hamlet of Thayer in their own covered wagon. There, by lantern light in a desolate field, Colonel York set up a kangaroo court. "Where is my brother?" York asked the Benders. None of the Benders would talk. York raised his voice. Old John and young John drew guns that they had managed to conceal. York's party opened fire in self-defense and killed the two male Benders.

"Your brother is under the cherry tree," Kate yelled to York. One of the York party approached Kate to ask her more questions and Kate pulled a knife quickly from under her skirt. The Yorks opened fire. They killed Kate and, by mistake, her mother, too.

After the four killings, the York party kneeled down and took a vow of silence. Then they stripped the Benders of their clothing, threw the bodies down an abandoned well and shoveled some dirt in to cover them up. Four of the kangaroo jurists then dressed in the clothing of the murdered quartet and went to the railroad station in Thayer to buy tickets for Kansas City.

After Downer's confession, searchers started to look for that well. But it had long since disappeared. The Benders had been plowed under. —Alan Hynd

Escape With a Mint

[*Continued from page* 35]

scattered in the small towns and villages in the countryside," the manager said. "The problem will be to get it to the railroad. Then you might bring it up by train if you have luck."

He didn't seem very confident.

That afternoon I talked with some of the fellows who had been in the district recently. They said that bands from the armies of both war lords were looting and killing, but none of them had got into Pao-ting-fu yet. Whichever chieftain won the city could pay his men in the usual Chinese fashion—with loot. The fight was just one of the many bitter battles that went on all over China in those days, and the Central Government in Peking paid no attention to it. The only people really concerned were those who stopped bullets or had their property stolen or their houses burned.

Later in the day the Standard Oil manager in Peking, a chap by the name of Thatcher, got in touch with me. He wanted me to pick up Standard Oil funds along with those of British-American Tobacco. Standard and B.A.T. worked closely in the Orient in those days and shared many of the same agents in the Pao-ting-fu area. I told Thatcher to give me a list of his people. With a similar list from B.A.T. I was ready to start. I decided to go without reinforcements and take my chances on the ground when I got there. It looked to me like a case where speed and footwork would count more than numbers.

Next morning I got aboard the train with Lu, my Chinese boy, for the six-hour trip south to Pao-ting-fu. I was wearing a black overcoat (it was October and chilly) and a shooting cap. Lu was a second-hand edition of myself in my used clothes. Our baggage was a .303 British Winchester and pistols under our coats.

There were only a few passengers, and they got off along the line before we came to the fighting area. About a mile ahead of us a pilot engine ran pushing a machine-gun-mounted flatcar. If that bumped into trouble we were supposed to have time to stop and back up out of danger.

Near Pao-ting-fu we began to see signs of trouble. Refugees filled the roads, some in carts, some on muleback, most on foot, carrying their belongings and children, or wheeling them on the big Chinese wheelbarrows that have a wooden deck all around the wheel.

At Pao-ting-fu people were jammed about the station and along the tracks, hoping for a ride anywhere. The city stood three miles off across the level land. I could see the walls around the old city, with the new town sprawling outside. Pao-ting-fu had a bad name. It was there the Boxer Rebellion—the general uprising against foreigners—started in 1900 with the beheading of American missionaries. Afterward the Chinese authorities graciously sewed the missionaries' heads back on the bodies so that the dead might enter heaven in one piece. Pao-ting-fu had a population of about 100,000 in normal times. It was a handsome city with tree-lined streets and a university. I did not expect to find it normal now.

At the depot I made my way through the crowd to the ticket office to see whether the wires were still open. They were, and I wired Peking that I had arrived safely and the town was being evacuated.

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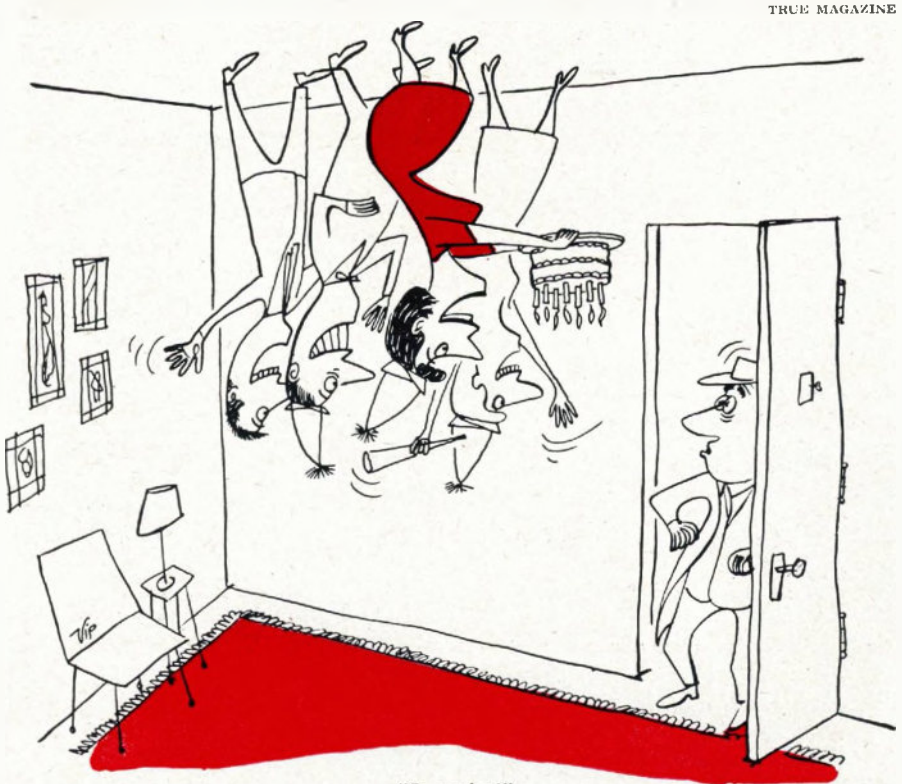


"Surprise!"

Then I went out and asked the first beggar I found to fetch me the Queen of Beggars. She was an old friend of mine and figured in my plans.

In a few minutes she came along. She was somewhere under 100—which is all I could safely say about her age. She wore raggedy, padded Chinese clothes—trousers and knee-length jacket and rope sandals. Her face looked like the sole of a worn-out shoe and she had a few scraggly gray hairs on her head that were drawn to a bun at the back. For a woman worth, I suppose, half a million, her appearance was well calculated to mislead.

"Master is handsomer than ever!" she began, twinkling and bowing, in the vein that we had left off on years before.

"You were always a deceiver of men," I said. "I knew I'd find you somewhere around this crowd, pretending you were an honest person, you and your friends the thieves!"

What the thieves left, the beggars got, when a crowd collected like that.

The queen opened her mouth in a toothless laugh, and waited expectantly. I told her what I had come down to do.

"I want you to guard the money for me," I said. "Here at the depot, as I collect it from the outlying districts. When we get a carload collected, I'll take it by rail to Peking."

She stared at me as if I'd gone crazy.

"You'd trust me with a sum like that?"

"Of course I'd trust you. You're the only honest person I know around here."

For a fact, the beggars and their brothers the thieves are the most trustworthy people in China if you approach them the right way. Somewhere I had learned how, and when I first went to live at Kalgan I sent for the head of the thieves' guild and told him I wanted a night-watchman for my compound.

"I have just the man for you," he said.

The man he produced was a broken-down old thief too decrepit to climb over compound walls and break into freight cars, and the guild would have had to support him anyway, so it was a satisfactory arrangement all around. I paid him $20 a month, as much as I paid my cook, and every night he shook his rattle box until about 10 o'clock, to show he was awake, then lay down across the door and slept till morning. Not a thief ever entered my compound. If I'd hired an honest man to guard me, I'd have been stolen blind.

"There's a thousand in this for you and your boys when the job is done," I said to the Beggar Queen.

I saw her eyes brighten.

"Your money will be safe," she promised.

It would certainly be safer, I knew, than with the B.A.T. agency in the city, where soldiers might arrive at anytime.

The Queen would split the thousand with her boys and girls. They all turned over their day's take to her, and she kept her share and gave them back theirs. Nothing was more sure than that they'd better not cheat on her if they wanted to remain healthy. Both beggars' and thieves' guilds had practices fixed by usage over thousands of years, and unswerving honesty and obedience were

two of the rules, the infraction of which usually brought death.

With the beggars and the thieves on my side I felt I had made a good beginning.

The next step was to assure myself of the constant services of the Beggar Queen's men.

Turning back to her, I asked, "Can you let me have a few of your boys to pave the way and steer me clear of the fighting?"

Her head bobbed. "Yes. There will be someone near you at all times. Ask for anything you want. Master's wish will be our law."

"You are not only a lady," I said, "you are a true queen. Is the situation serious?"

"The city will suffer as soon as one army whips the other. But you know the situation—neither wants to fight while it can get its loot by threats."

I persuaded a cart driver to take Lu and me the three miles into the heart of the town. Next to no one was going that way. Our driver assured us that beyond Pao-ting-fu no carts were moving at all, and that only men like him, with great courage, returned to the city. Anyone caught there when the soldiers came was likely to get a free trip to his ancestors.

Yet some had elected to remain, we saw. You have to scare a Chinese badly to make him leave his shop or a plot of ground that his family has occupied for generations. Most of the shops were indeed closed and the streets were nearly empty, but here and there life went on.

As we rolled toward the B.A.T. compound I remembered the government mint and wondered what measures had been taken to evacuate its contents. Its German superintendent and his attractive wife were my friends. But I had not the least intention of getting involved with the mint in any way, shape or form. I had enough on my hands.

At the B.A.T. the Chinese agent was expecting me. His money was ready and waiting. The silver dollars were wrapped in paper in rolls of 25 and packaged in amounts of $1,000 with burlap and rope. The bulk silver was in the form of "shoes," literally little slippers of silver cast in the shape of some long-dead empress's foot. They ranged in value from 5 taels (about $5.50 Chinese, which was roughly $2.75 U.S. at the time) to 100 taels, depending on the amount of silver they contained. There was no gold, China being a silver-standard country. We did not bother with the paper bills or copper coins he had.

"The soldiers may enter the town at any time," the agent said. "You must hurry."

"I've got to go out into the country first," I pointed out. "I must collect the money there. Have you notified our men?"

He had.

"I'll need transportation," I went on. "I understand carts are impossible to procure. Are there mules I could use as pack animals?"

He looked at me as if I had asked for flying carpets.

"There is no livestock left in the area."

"Nevertheless," I said, "I must have mules or carts."

Seeing that he could not get rid of his money and leave town till he had solved my problem, he admitted there might be mules at a village eight miles away. I caught the last two rickshaws in town for Lu and me, and we went out there on the double. It wasn't too hard to persuade the owner of the mules that since his precious animals would likely be confiscated by the soldiers anyway, he'd better rent them, to me while he could. I paid him their weight in gold, nearly, and the same for himself and his two men to drive them.

We started for the farthest town on my list, planning to pick up the money there first and work back toward Pao-ting-fu. The countryside was as level and fertile as that I'd seen from the train, but now I knew that soldiers were likely to turn up anywhere. And now was when the Beggar Queen's boys proved invaluable. They sent queries ahead constantly to their friends in the towns and villages roundabout to see what the score was. China was then—and still is—largely a word-of-mouth country. No one had more accurate information than the thieves and the beggars, whose network of guilds was everywhere. The result was that if soldiers were holding one road, I took another. If there was fighting this way, I went that.

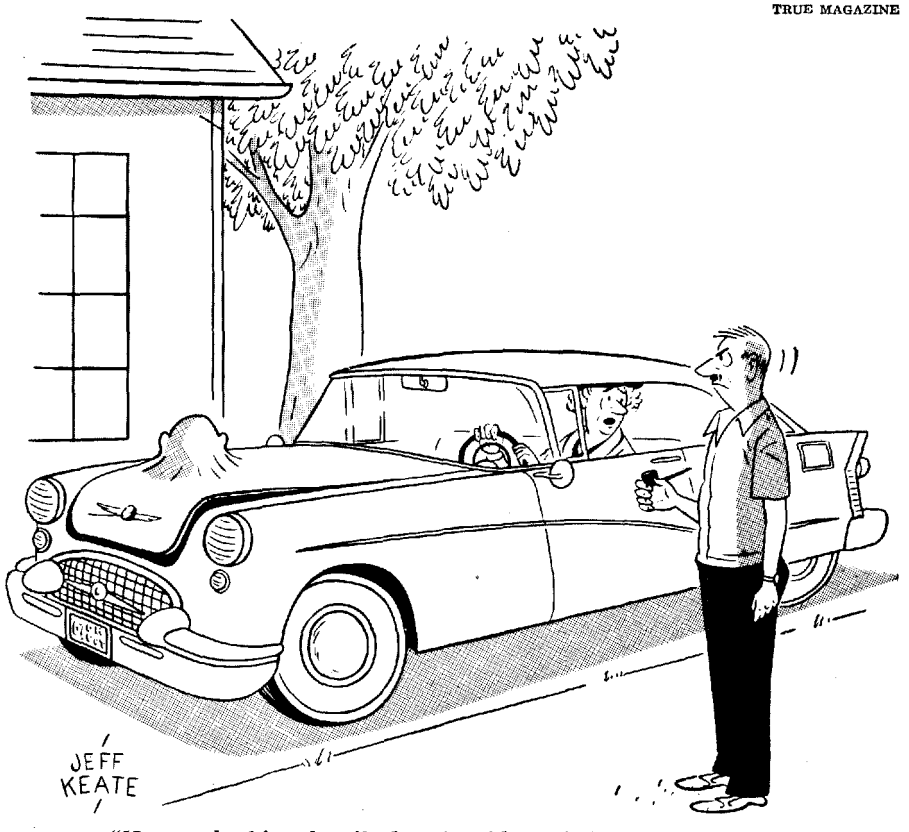
The outlying village was a tiny, mud-walled place. We rode down the deserted street until we saw a sign that said, in Chinese characters and English letters, "British-American Tobacco Company." Another sign proclaimed that this was the agency for the Standard Oil Company, too.

Inside the compound was the merchant's house, huts for his coolies and servants, stables for his horses, and warehouses for his merchandise. His office was a small room off one of the warehouses. There was a counter across it with the old fellow himself sitting on the far side in an easy chair and his grandsons hovering around in case he needed anything. Clerks bent over open books as if this were business as usual.

I was surprised. I'd thought to find a scene of near panic. But the old merchant was a model of calmness as he came forward to shake my hand. I wondered whether he had arranged a pay-off for the soldiers or had seen so many wars and rumors of wars that he wasn't disturbed by this one.

He led me through the little gate in the counter and invited me to sit down. Tea was served. I asked after the health of his family and he asked after me and my business. Then I showed him my orders for the money and we got down to brass tacks.

The money was ready on the floor of the office, packed in burlap, but it wasn't tied properly, and while his people were doing the packages over he showed me into one of his warehouses. There I caught the odor of tobacco and saw the cases of cigarettes—Honest Weight, in



"He was checking the oil when I accidentally bumped the horn."

zinc-lined wood cases of 50,000 capacity that cost $68 each; Peacock, at $225, Pirate, $190, and the fancy Three Castle that officials and the military smoked.

When the money was wrapped properly I signed a receipt for a certain number of packages *supposed* to contain so many silver dollars and so many silver shoes belonging to B.A.T. or Standard Oil. I laughed and said that I wasn't going to count it, and he laughed and agreed. We marked the bundles in lampblack with Chinese and English numbers from one up and with the weight of the package. The shoes weighed 150 pounds per package, the dollars 100 pounds. Each mule was tied down with about 300 pounds of the treasure.

After two or three such stops we had a load and went back to Pao-ting-fu. There the Beggar Queen was waiting at the depot for us with her toothless grin.

"Are you ready to sit on a pile of money?" I asked her.

"I am ready to do anything master wishes."

We unloaded the money at the siding in the midst of the crowd of refugees. I think almost everybody knew what it was. Plenty of them would like to have got hands on it. No one dared to, because at the first sign of trouble a war whoop would go up and the thieves and beggars would come running with knives bared.

I gave my old girl a pack of cigarettes to entertain her while she took up residence on top that pile of silver, and there I left her. As I looked back, she made an odd sight, puffing smoke and sitting on several thousand dollars.

We were making our third big swing through the countryside when we ran across the Chinese Jews.

The first one, a fine, tall young fellow dressed Chinese fashion with a pigtail down to his heels, come to me while I was superintending the loading of the mules in our agent's compound.

"You've come to take money to Peking?"

"That's right."

"We have money in our town that we would like to send with you, if you would be so kind."

"How far is your town?"

"Six *li*."

Two miles, I thought—on plodding mules.

"I haven't time to go there. If you want me to take your money, bring it here. How soon can you get it?"

"Within an hour," he said. "I'll send a runner back." He motioned to one of his men.

"Have it packed in burlap," I told him, and showed him how we were wrapping it. "You understand that I guarantee nothing. I'll do what I can. Your money will be in the Hong Kong-Shanghai Bank in Peking, if we have luck."

He bowed politely. "We have no choice. If the soldiers come we will lose all otherwise."

He bowed again and added, "We knew of you when you were in our town in years gone by. So when we heard you were coming through the country for your own money, we knew we could trust ours to you."

There was a legend that his town was the home of one of the lost tribes of Israel. I'd liked the place—clean, with gravel streets and good farms around, and an old, old synagogue. The people wore Chinese dress but they had not intermarried with the Chinese, and so preserved their physical integrity. They were quite tall, straight-backed, good-looking. Most of the men were merchants either in town or out through the countryside with backpack or cart. The Chinese government did not bother them, and they paid their taxes and led a quiet life.

Before long there came about 20 of them trundling wheelbarrows, two men to a 'barrow, one pulling and one pushing. The wheelbarrows were loaded high with money, mostly silver shoes. I took about $80,000 from that town.

Pretty soon we had enough to fill a railway car. The next step was to get one and commandeer an engine. A freight train was rolling into Pao-ting-fu just then, heading toward Hankow from Peking. We stopped it and told the engineer to forget his train and back into the Y at the yard with an empty boxcar. He was a little reluctant till I showed him my authority from the Minister of Transport and backed it up by casually swinging my rifle. White foreign devils were doing all sorts of weird things in China in those days, and this he undoubtedly thought, was one of them. He turned around, leaving his train to come-what-might. J. K. Thomas and British-American Tobacco could take care of that with the Chinese government.

We loaded the boxcar to the ceiling with silver, leaving a space in the middle—where I was afraid to stack too much weight anyway—for Lu and I to move from door to door.

We were ready to start.

"Move fast and keep moving," I told the engineer. "Don't stop for anything till you get to Peking—or I'll shoot."

At first Lu and I sat on either side of the car with our feet hanging out, looking ahead to make sure none of the red-and-white siding switches were turned against us. We kept careful eyes on the fields, too, but when no soldiers appeared and everything seemed all right I settled myself in the bamboo deck chair Lu had snatched up from somewhere and prepared to take life easy. Next I knew the car had slowed to 10 miles an hour and was obviously coasting to a stop.

I looked out the door.

The *kolyang* field beside the track was alive with crouching soldiers, and the engine was going off up the line by itself.

Without waiting for a second look I threw up my rifle and fired at the cab, then waved at the engineer to come back.

I wondered what the soldiers were going to do. From the corner of my eye I saw that they stood motionless in the corn watching this scene between the engineer and me as if they were the audience at a play. Any minute they might get into the act. The thought spurred me into pumping shots at the engineer. He signaled wildly and stopped and started to back up. I ceased fire. Though I've never been in a locomotive cab when rifle bullets are ricocheting around, I guess it is a never-to-be-forgotten experience.

The soldiers were still standing like statues, but the car had almost stopped rolling. I held my breath.

The engineer came back fast, hit us with a smack and hooked the coupling. It nearly knocked me off my feet, but he probably wasn't feeling too kindly toward me at the moment. Then he had the throttle in and was going up the line wide open. I thought now the soldiers would attack us for sure. But they didn't. Maybe they'd never seen a car and engine behave like that. Maybe their feet were cold. I don't know, and at the time I certainly didn't care.

We reached Peking while it was still daylight. I'd wired ahead, and carts and guards and police were waiting at the station. We took the money straight to the bank. It was after closing time when we arrived, but the bank people were still there and the boys began counting the money.

When it was over I checked in at the B.A.T. office and found that the Chinese Minister of Finance wanted to see me. But I figured I was tired enough to let him wait, so I dropped in at the Peking Club for a couple of cocktails and headed home to bed.

I slept the clock around, then went to see the minister. It was too late to catch him at his office in the palace grounds, so I turned in to his house. I'd known him since the revolutionary days that overthrew the Manchu dynasty and established the Chinese Republic.

After the inevitable polite greetings that preceded any talks in China, we got down to cases.

"What do you think of the situation at Pao-ting-fu?" he asked. "The mint superintendent has informed me matters are serious, but I did not feel any action was needed until now."

I told him I thought the city might be sacked at any time, and that if he was worried about the money in the mint he had better start doing something.

He smiled meagerly and hesitated a moment. Then he said, "Do you think you could bring the money out for us?"

It was a question that should have floored me, and I guess for a moment it did. Then I thought it over. From his point of view a white man he could trust would probably have a better chance of pulling the money out than anything less than an army—and he didn't have an army on tap. Still, I hadn't planned on acting as custodian for the contents of a mint. The risk would be high. The war lords wouldn't like the idea at all. They had their own designs on that mint. Nevertheless, since I was in the "money business," I felt I might as well go all the way. Besides, anything you did for the Chinese government in those days was sure to pay off.

"Okay, I'll tackle it," I said, and told him how expenses were running. He said he would take care of those.

"I can't guarantee that your money will reach Peking," I pointed out.

"It is a chance we will have to take," he agreed.

I was thinking of the chance I'd have to take.

Back to Pao-ting-fu I went, this time with a freight car and engine of my own. No soldiers intervened. They're waiting for the big haul, I thought. I finished the collection of the last few B.A.T. funds left in outlying districts and turned to the mint.

"Beggar Queen," I said to my old girl, "if you ever sat tight, sit on this pile of money that's coming now."

When I told her what was going to happen she had nothing to say. She just stared at me. I didn't blame her.

The mint showed nothing along the street but a high earthen wall perhaps 18 feet high and 3 wide, its top covered with broken glass. The wall surrounded an entire block. There were small guard houses at each corner and over each side of the gates, one in front and one in back. Along the full length inside the east wall were sheds for horses, carriages, carts and rickshaws, and a harness-and-saddle room. Along the south wall up to the gate were huts for coolies and servants. On the other side of the back gate stood a six-room house surrounded by a grove of old trees, where the superintendent lived. There were flower gardens along two sides of the house and a vegetable garden near by. Along the west wall were houses for the clerks. The front or north wall was covered with vines. Facing this wall and about 60 feet from the gate was the main building. It was a substantial brick structure, 125 feet by 165, single story, with fancy Chinese scroll work over the tops of the doors in the center and along the edge of the roof. The doors were made of heavy black ebony reinforced with iron rivets the size of a fist. All the windows were heavily barred.

As we came up I spotted a few guards still about, but I felt the mint staff had suffered from the same flight to safety that had affected other people of Pao-ting-fu. Now, seeing me, probably a few more would leave and tell the soldiers to come quick because I was looting the mint ahead of time.

Entering the door of the main building, I came into a large room with a counter perhaps 80 feet long. There was a jog in the counter where the scale was placed, a huge, delicate device that could weigh as little as one grain or as much as 100 catties—about 133 pounds. Its beam, about 40 inches long, was solid ivory—the largest ivory piece I ever saw. It was suspended by heavy silk cord, with the pans hanging below it on silver chains and the whole operated by a lever at the base. The six or eight clerks behind the counter looked lost in a space where there were desks for 50. I was shown to the office, where my friend the German superintendent waited. He was a middle-aged, middle-sized man wearing a high white collar, sports vest, riding trousers and leather puttees. Appointed to his position by the Dowager Empress before the revolution, he had stayed on under the republic.

He stepped toward me and grasped my hand. "I'm glad to see you," he said, speaking English in methodical fashion with a slight accent. "We've been worried that Peking would delay taking action until it was too late, and now it is almost so."

"What's your information?" I asked.

"The stalemate is breaking up. They'll be here soon."

"You have the money?"

"Packed and ready in the workroom."

The workroom of a Chinese mint was really a rare place. Basic were the furnaces, heated with charcoal, for melting the different metals. There were also rollers and tamping machines, work benches, and at least 50 scales, each coin having to be weighed a dozen times before it was put into circulation. Brass and copper coins were put out by the ton every day. The brass went into "cash" (the coins having a hole in the center), with 1,200 cash, strung together, to the Chinese dollar. Copper was used for pennies—120 pennies to the dollar—and silver for dollars and "shoes."

The money was standing beside one of the side doors.

"Are you ready to sign for it?" the superintendent asked, half joking. He knew I couldn't count that pile of stuff, but somebody's name had to be written for it while it traveled to Peking in my hands.

"Sure," I said, and told him the kind of receipts I had been giving for Standard Oil and B.A.T. funds.

And that's how I signed for the contents of the mint at Pao-ting-fu—supposedly so many tons of solid silver bullion, so many dollars, so many shoes. I've signed my name in some peculiar places, but never in one stranger than that. After it was done, there began to be a heavy feeling at the back of my neck, as if a little silver were pressing there—about 20 tons.

For the transfer to the railroad we closed off the street at both ends, put guards all around, and ran relays of mules to the depot night and day for two days. By the time it was all stacked on the ground under the Beggar Queen, she looked higher and more valuable than Queen Victoria ever did. The higher that pile grew, though, the more I felt the weight of it.

"You've got less than 24 hours to get away, master," she said, just to encourage me.

"Do you think they know what we're up to?"

She smiled bleakly. "We'll find out soon enough."

"How do you mean?"

"If they find out what you're doing, master will have not 24 hours but 24 minutes in which to settle his affairs."

The fact was that the Army of the West was whipping the Army of the South, and Poa-ting-fu was due for the kind of attention only a loot-hungry, half-starved Chinese army can give.

We piled silver into our boxcar like you throw wood into a stove. It had a capacity of 10 tons but we must have had at least twice that on it.

When all the money was on, I handed my old girl a package containing a thousand dollars.

"The gods go with you always!" she exclaimed, beaming with pleasure. I could not help thinking that she had been sitting on 500 times that amount and more, and all that kept her and her friends from stealing it was the established custom of ages, and her word.

"There aren't any gods where you and I are going," I said, "but look me up when you get down there. And always smoke Three Castles, like a queen."

I left her holding the thousand pinned

"I've consulted with Dr. Noonan on the results of your examination, and we've decided you should give up operating a jackhammer."

down to the ground with one foot (it made a considerable package) and bowing and smiling her toothless smile, while her boys and girls clustered around eagerly.

Lu and I were on our own then. Suddenly, as the train pulled out, it seemed the most logical thing in the world for the soldiers to wait to attack us until we were off alone and away from our friends. The exhaust of the old engine built up into a steady roar, and at first I was afraid I wouldn't hear the crack of the rifles going off, and then afraid that I would. Around each bend I expected to see a bridge blown. Out of every cornfield I expected to see soldiers spring up. Hour after hour we sweated it out, keeping our eyeballs literally peeled for signs of danger.

But the bridges went by intact, and not a single *kolyang* field sprouted men. We arrived in Peking.

There was a treasury official at the station to meet us with carts and soldiers. The money was unloaded.

"Would you like to accompany the money to the vaults in the palace grounds?" he asked.

"No, thanks," I said. I felt I had money running out both ears. "Just you sign for it, if you will."

He did. My name was off the hook. And the whole mint of Pao-ting-fu was lifted off my neck.

I went home to bed.

Meanwhile, the victorious army sacked Pao-ting-fu. It sacked the city as only a Chinese army can, foot by foot, block by block. The soldiers staked women out in the streets and systematically raped them. They burned and murdered men, women and children in their homes without a second thought.

But when they got to the mint and found its contents gone they were really furious. They were so mad they leveled the entire place. They even cut down the trees around the superintendent's house.

I have a photo of the city taken a short time after the looting, and it looks like a scene from a midwestern town after a tornado. Pao-ting-fu lived up to its reputation from the Boxer Rebellion, but this time nobody bothered to sew anyone's head back on his shoulders.

I never saw the old beggar woman again. She's gone long ago now to the paradise where all good beggars go, and I look forward to meeting her there and talking over old times. The tons and tons of silver that she sat on, to keep her word and mine, entitle her to a silver harp if not a golden one.

—Fred Meyer Schroder & Robert Easton

IN NEXT MONTH'S TRUE

Never-before-published facts on the Holohan case, revealed by the man who broke the story, Mike Stern.

Stealing Signs Is My Business

[*Continued from page 38*]

his fast ball, he holds the last two fingers of his right hand up—off the ball—like he was drinking tea or something. But when he throws his curve, he grips the ball with all five fingers."

Kelley watched for a few minutes, then turned back to me. "You're right, Charley. Next inning, get in a corner and tell the rest of the boys."

We called every pitch Northrop threw after that. He lasted a couple more innings, but we licked him and broke out of our slump.

"See what you can learn by really watching the game?" Kelley said later. "And the more guys you have watching, the better your chance of finding out what's happening out there. Fifty eyes are better than two. Remember that in case you ever become a manager."

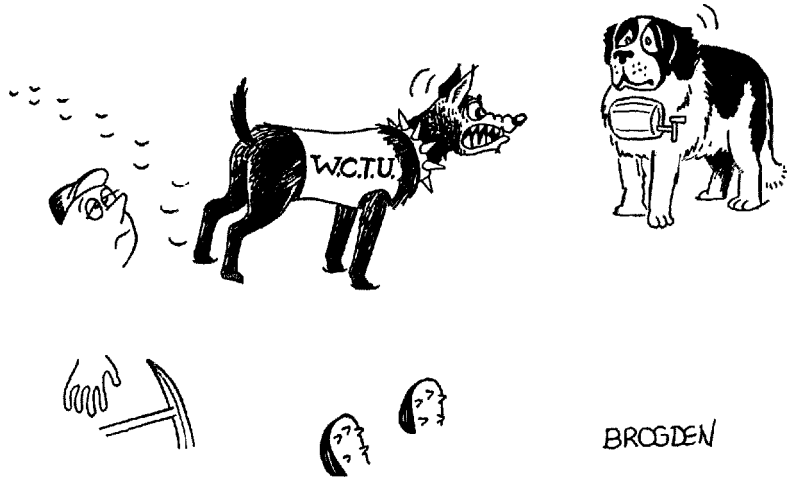
I've never forgotten it. That's why I'm always after my boys to try to steal signs. It not only gives us the best possible chance to find out what's in the other guy's mind, but it also keeps my gang in the ball game. Unless they're actually playing, most ballplayers just sit on the bench and daydream. For my money, the perfect club is the one on which every single man is working all the time trying to find out what he can by watching what's happening on the field.

The best sign-stealing teams I've ever been with were Mike Kelley's old St. Paul Saints, the 1939-41 Dodgers and the 1950 Oakland Oaks, and they were all winners. We took two Association pennants in the four years I played at St. Paul and the Dodgers, where I was a coach under Leo Durocher, won the 1941 pennant. I managed the Oakland team that won the 1950 Pacific Coast League flag, and one reason we won was because we had three old sign-stealing artists from the '41 Dodgers, Billy Herman, Cookie Lavagetto and Augie Galan. When you have guys like that stealing signs, you can drive the opposition crazy. It's always more effective when ballplayers work together than when the manager or coaches try to work alone. Two smart players can sometimes outfox the opposition without their manager even knowing what they're up to.

When I was the Cincinnati Reds' third baseman, I teamed up with George Kelly to make manager John McGraw of the New York Giants quit using one of his favorite maneuvers against us. McGraw, who called all his team's plays, liked to bunt for a base hit with no one on—if the third baseman was playing too deep. It was a great surprise play, but useless when the third baseman was tipped off in advance. Since he couldn't do it often, McGraw usually saved the stunt for a late-game rally when his club was a run behind.

McGraw did all his managing from the bench. The Giants' dugout was behind third base, so I couldn't see him without deliberately turning my head in his direction. But Kelly, a first baseman, had a clear view of McGraw and he arranged to let me know when the bunt sign was on by flipping his glove up from his knee. The Giants' manager always toyed with a baseball and when he exposed the white part of it without showing the seam, that meant the bunt was coming.

We were leading by a run, with one man out and no one on, in the Giants' half of the eighth inning of a game at the Polo Grounds. Bill Terry was up, and I was playing deep until I looked over at Kelly. The big guy was flipping his glove up, so, by the time the ball left the pitcher's hand, I was half-way to the plate. If the right-handed Terry had hit away at the last minute I'd have had my head torn off. But, sure enough, he bunted, and I threw him out by 15 feet. McGraw made Freddy Lindstrom bunt under the same circumstances in the



ninth. George passed the sign along to me again and I threw Lindstrom out by a mile. That was the last time McGraw tried the play against us.

A third baseman should always be able to tell when a man is going to bunt. Some guys drop their hands a little on the bat, or relax their elbows, or go into a slight crouch. When I was at St. Paul I made a career out of throwing out Buck Herzog, who was then with Louisville. He always let his left hand slide a fraction of an inch down his bat when he was going to bunt.

Actually, I don't think it's possible for any hitter to bunt without tipping his hand somehow. Just keep watching him and you'll see how he does it. And when you've got half your team watching the other guy, you can't miss. All it takes is a little patience and concentration. For example, three smart substitutes working together on the bench can pick up a lot by watching and talking to each other. Here's how they might catch the other club's bunt sign.

Let's say Player A is watching the hitter, B the third base coach and C the runner on first base. Their conversation may sound like the jibberish of idiots, but it makes sense in a baseball dugout. It might go something like this:

A. "He's watching the pitcher."
B: "He's kicking up dirt."
C: "He's taking a short lead."
A: "He's still watching the pitcher."
B: "He's touching his cap."
A: "He's still watching the pitcher."
B: "He's rubbing his hands together."
A: *"He's looking toward third."*
B: *"He's clapping his hands."*
A: *"He's still looking toward third."*
B: *"He's rubbing his uniform."*
A: "He's looking at the pitcher again."
C: "He's moving off first."
B: "He's stooping."
C: *"He's got a big lead."*
A: *"He's gonna bunt."*
C: *"There he goes!"*

By working together and keeping their eyes open, the boys learned when the batter got his sign, and, possibly, just what the sign was. Next time, they can pinpoint it unless the coach gave the sign verbally and was faking all those movements. Even if the boys were completely wrong and the bunt sign wasn't on at all, they haven't lost anything. They had good practice in trying to steal signs, and they all kept themselves in the ball game.

Nobody but a ballplayer ever gets to second base, and there's no better place from which to pick up a catcher's signs. He can hide them from the coaches and the other base-runners, but when he flashes them to his own pitcher, the guy on second should get them, too.

Spotting the sequence of a catcher's signs is simple enough, but interpreting what they mean is a horse of another color. Catchers give anywhere from three to half a dozen finger signals for every pitch, and the trick is to find out which is the one that counts. Some receivers don't mean anything with any of them, but give their real signs by putting a hand on one knee or picking up the dirt or pounding their mitt or adjust-

ing their mask or something like that.

The way to get the sign is to find a common denominator between what the catcher does and what the pitcher throws. It's not easy, and it can't always be done in one game, or even in one series. You've got to have plenty of patience and a good memory, but if you keep watching and eliminating you will eventually get the information you need.

I guess the most complicated sign-stealing contraption of all time was the one rigged up in Philadelphia's ancient Baker Bowl by the 1902 Phillies. They ran an underground wire from the dugout to the batter's box, connecting the wire on one end with a battery and a switch and on the other with a buzzer which the hitter could feel under his feet. A man in the centerfield clubhouse stole signs and relayed them to the dugout. A coach then buzzed the batter once for a fast ball and twice for a curve. The Phillies used it for the first time against the Reds, but after a couple of innings the wires got crossed and the buzzer wouldn't stop buzzing. One of the Cincinnati batters, Tom Corcoran, knelt down and dug the thing up on the spot.

The 1910-14 Athletics, who won four pennants in five years, had the cleverest sign-stealers in baseball. A substitute outfielder named Danny Murphy was the best, but there weren't any flies on Chief Bender, Jack Coombs or Harry Davis, either. Murphy used to stand beside a weathervane on a rooftop behind the outfield in Philadelphia and watch the plate through a pair of field glasses. He picked up the catcher's signs and relayed them to his own batters by spinning the weathervane north for a curve and south for a fast ball. The stunt worked fine most of the time, although every so often the A's got crossed up when a gust of wind blew the weathervane out of Murphy's hands.

Murphy, Bender, Coombs and Davis used to relay stolen signs to the hitters verbally, with the result that the Athletics' bench was always the quietest in the major leagues. Because of this lack of chatter, the A's players were accused of being a dull, disinterested collection of stars who didn't care whether they won or lost. Actually, they were working every minute. As soon as one of the boys spotted a sign, he cupped his hands and yelled to the batter. If what he said included the word "come," it meant the pitch was a curve. If it included "make," it meant a fast ball. The rest of the club kept quiet so the hitter could hear the tipoff, and the only noise that ever came out of the Athletics' dugout was when someone yelled, "Come on, now!" or "Make him pitch to you!" The system collapsed in 1912 when Eddie Collins, who wouldn't take signs himself, revealed it in a magazine story. Some of his teammates never forgave him.

Back in 1909 the A's spotted a sign-stealing device in Detroit which had, for a season or more, made awesome sluggers of the Tigers. There was a picture of an Indian on one of the outfield fences, almost in a direct line with the batter's vision. One day, a young Philadelphia pitcher said to catcher Ira Thomas, "I may be crazy, but I could swear the eyes on that Indian move when the Tigers are hitting."

Thomas watched and noticed that whenever he called for a fast ball the eyes moved one way, and they went in the opposite direction for a curve. Thomas changed his signs, and that was the end of the Tigers' batting spree.

The 1911 Athletics found the Yankees easy meat because Ed Sweeney, the New York catcher, gave his finger signs so clearly that, by lying flat on his stomach on the bench, an observer could spot them. A substitute was assigned the job whenever the club was in New York. He yelled the number of fingers to the coach who relayed the sign to the batter.

Actually, a lot of old-timers were careless in tipping off their signs. Frank Snyder, the great Giants catcher, held his mitt one way for a fast ball and another for a curve. Roger Bresnahan held his elbow straighter for a fast ball than when he was expecting a curve. A Cincinnati infielder named Marty Berghammer openly relayed battery signs to the outfield by finger signals behind his back. Miller Huggins, who later won immortality as the Yankees' first great manager, was a second baseman who tipped every pitch by shifting his position in the field.

Sometimes the best of signs backfire. Eddie Dyer, who took the St. Louis Cardinals to a pennant and world's championship in 1946, got caught with his pants down one day because a fly landed on his nose. Dyer was coaching on third, one man was out, the Cards were two runs behind, Red Schoendienst was on third base and Whitey Kurowski was at bat. Dyer wanted Kurowski to hit the first good pitch, a situation usually calling for no sign at all. But just as Kurowski looked at Dyer, along came the fly. Eddie brushed it off, but by touching his nose he inadvertently gave the bunt sign. Kurowski bunted, Schoendienst was caught flat-footed and the rally died.

When Steve O'Neill was managing the Tigers in 1946, he sent a rookie to coach at first base in the late innings with instructions to wink one eye at Eddie Mayo, the Tiger base-runner, if the hit-and-run sign was on. Mayo broke for second on the next pitch and was thrown out by 15 feet. When O'Neill asked him about it, Mayo said the coach had given him the sign. When the coach came in after the inning was over, O'Neill began angrily, "Why in hell did you send Mayo—" Then he noticed that the kid had a nervous twitch and winked his eye involuntarily every few seconds.

You can't have signs pass through too many hands, as every man who handles

IN NEXT MONTH'S TRUE

The Germans' great battleship *Bismarck* steams out of Gdynia on her final date with destiny.

SPECIAL FISHING ISSUE!

them represents one more guy who might get them mixed up The hitter who steps into what he thinks is a curve and catches a fast ball not only looks foolish, but might get badly hurt. I was coaching at third base for the 1940 Dodgers one day when Freddy Fitzsimmons discovered that the opposing catcher moved his legs wider apart for a fast ball than he did for a curve. Fitzsimmons told Durocher, and Leo began setting up a big network of counter-signals. It involved himself, Fitzy, the first base coach, the hitter, and me. "Hey, wait a minute," I said. "By the time we get the sign to the hitter the pitch will be past him. Can't we cut out a few guys?"

We ended up with Fitzy flashing the sign to me at third, and me relaying it to the batter. Since the hitters were in the habit of looking to me for signs anyhow, we avoided complications and cut down the margin for error. It worked fine—the Dodgers drove a couple of pitchers out of the box and won the ball game easily.

Because he was a great stealer of mannerisms, Frank Frisch was one of the best base-runners in the business. When he played for the Cardinals he used to steal everything Cincinnati's Pete Donohue owned except his spikes. Frisch must have stolen 50 bases on Donohue in the dozen or so years the two played in the National League. The explanation was simple. When there was a man on first base, Donohue would go into his stretch, look toward first and then get set to throw the ball. If he raised his leg, he always pitched to the plate. If he didn't he threw to first. Frisch was always off and running before the ball was out of Donohue's hand.

Si Johnson of the Reds had one of the most glaring faults I ever saw. He never threw to first base when, after looking there once, he looked back a second time before pitching. He had to be a ball of fire to last as long as he did because everyone knew his weakness and base-runners used to drive him daffy.

Key pitchers on two recent pennant-winners never failed to let you know when they were going to throw to first base. One was Gene Bearden of the 1948 Indians. The other was Curt Simmons of the 1950 Phillies, who has since mended his ways. When Bearden was going to pitch, he pointed his toes in. When he was going to throw to first base, he pointed them out. When Simmons was about to pitch, he stopped for a second in his stretch. When he didn't stop, he invariably threw the ball to first base.

If somebody didn't keep tipping guys off on what they're doing wrong, the big league pitchers' mortality rate would be something awful. Nearly everyone has some fault when he first comes into the majors, and he's got to get rid of it or he's dead. Sometimes the fault is minor and easy to correct—maybe a boy's stride is too long or too short, or maybe he isn't following through properly. That sort of thing can usually be quickly straightened out, but one of the toughest things in the world for a pitcher to do is break the habit of a lifetime. For instance, Carl Erskine of the Dodgers used to throw his

"You should have seen what I saw at your neighbor's. May I step in and tell you about it?"

fast ball without hesitation, but he stopped momentarily before throwing his curve. The hitch caused him plenty of trouble, and he didn't get to be a top pitcher until he learned to eliminate it.

Another one of my Dodger pitchers of that 1951-53 period who had to cure a bad habit was Preacher Roe. Preach didn't have much of a fast ball, so he had to depend heavily on his control and other assorted "junk." Smart as Roe was, when he was going to throw the slider, he stopped for a split second at the top of his head as he wound up. When a curve was coming, he went all the way behind his head before stopping. Both Roe's and Erskine's little mannerisms were almost imperceptible, yet dead giveaways to a sharp-eyed sign-stealer. Not every club in the National League had guys who could have spotted them, but it only took one to hurt us badly in several clutch ball games.

Some of the old-time pitching stars had faults they never got rid of, but they managed to get by, because they had such overpowering speed that no one could hit them consistently or because sign-stealing hadn't reached its present level of effectiveness. Dazzy Vance, one of the great fast-ball pitchers of all time, used to loosen his grip on the ball in the middle of his windup when he was going to throw a curve. Nick Cullop used to look over his left shoulder before throwing his curve. When Flint Rhem threw a curve, he just wound up and let it go. When he threw a fast ball, he glanced at the ball as it got just above eye level during his windup.

When Babe Ruth was a pitcher, he stuck his tongue out one corner of his mouth every time he threw a curve ball. Ed Walsh never threw his famous spitter without touching the peak of his cap, and Urban Faber, another spitball pitcher, always nodded his head before throwing one. Herb Pennock held his curve ball across the seams and his fast one on them. George Smith widened his eyes when he was going to throw a fast ball and narrowed them for a curve. Even the great Christy Mathewson had a weakness that tipped his pitching. When he threw his fadeaway (now known as a screwball) he held three fingers on the ball at the top of his wind-up. When he threw his fast ball he gripped the ball with two.

Fellows like Vance, Walter Johnson, Dizzy Dean and Bob Feller never really had to worry much about bad habits while they were in their prime. Everyone knew that the payoff pitch for each was a blinding fast ball which nobody could hit anyhow. Those guys could have told the hitters that the fast ball was coming and still would have gotten it by them. Ol' Diz used to tell them all the time, but there's no defense against a pitch you can't see.

One reason I like to coach at third base is because right-handed pitchers face toward third, and there are more right-handers than southpaws. Naturally, a pitcher covers his hand with his glove, but he's got a whole ball game to pitch and over a hundred pitches to throw. Somewhere along the line he might tip his hand, and that's why I never take my eyes off him.

Some batters don't like to depend on others for information because they're afraid of getting crossed up. Most of the great sluggers are pretty good at outguessing a pitcher, anyway, and don't want to be distracted. Fellows like Rogers Hornsby, Bill Terry, Babe Ruth and Joe DiMaggio never took signs on the pitch that was coming. Their reflexes were so good that even when they guessed wrong they could adjust at the last minute and get at least a piece of the ball. Stan Musial and Ted Williams are two more great hitters who want to be on their own in the batter's box.

But many ordinary hitters and a few sluggers thrive on pilfered information. Dolph Camilli, who hit a flock of home runs for the Dodgers between 1939 and 1942, loved to get signs. He couldn't hit a fast ball high and inside and he was always looking for the curve. When I caught it and flashed the sign to him Camilli knew the ball would break down and away, and he'd slam the hell out of it. He socked 34 home runs in 1941, and I'd say a third of them were on curve balls he knew were coming.

Leo Durocher was another guy who relished tips on pitches that were coming at him. Leo was a marvelous fielder, a pepper-pot and a smart, heads-up ballplayer, as well as a holler guy. But he was never a good hitter. In 1939, his first year as the Dodgers' manager, he was still the regular shortstop. That was also my first year as a Brooklyn coach. Leo, in his last season as a regular in the line-up, had one of his best years at the plate. I called pitches for him all season, and he hit .277. With the exception of 1941, when Leo only played in 18 games, he only hit higher once in his entire big-league career.

When we have men on base I keep an eye on the shortstop, because he's usually the key man in defending against a hit-and-run or a steal, and often on staging the pick-off play. The best pick-off play of recent years was the one devised by Lou Boudreau when he was managing and playing short for the 1948 Indians. With a runner on second base, Boudreau would flash the sign to the catcher and then start counting slowly. The catcher tipped the pitcher, who also started counting. When Lou reached a prearranged number, let's say five, he broke for second. Two counts later, or just about the time Lou would reach second, the pitcher would whirl and fire the ball at second base. If everything went according to plan it worked almost every time, because the pitcher hadn't looked back at second before throwing the ball, and the batter had no idea they were even thinking about him. It sounds complicated but they worked it successfully dozens of times, including the '48 Series with the Braves, and it's since been picked up by other clubs. As a matter of fact, the Yankees pulled it in a crucial

1955 series with the Red Sox, and nailed no less than Ted Williams.

I put in a pick-off play at Brooklyn which, if I'm not mistaken, they still use. With men on first and second, I'd have Gil Hodges, my first baseman, give the sign, then sneak in behind the runner on first, take the throw and catch him flat-footed. Usually, everyone's worried about the man on second and letting the guy on first wander as far off the bag as he likes. I don't believe anyone ever caught the sign, because it nearly always worked.

Each ball club has several sets of signs, because they sometimes have to be changed on short notice. The 1941 Dodgers went into Boston to play the Braves one day late in the season, and we stole the signs almost as fast as they shifted them. They used up every set they had and by the eighth inning, everyone on the club was thoroughly confused. In our half of the eighth, with the score tied and a man on third, their catcher called for a curve, the pitcher thought he wanted a fast ball, a wild pitch resulted and we scored the winning run.

I always found it easier to steal signs before I became a manager, because I didn't have anything else to worry about. Now I have to try to watch everything at once, and I can't concentrate too long on any one problem. I still pick up a lot, but not as much as I'd like too. That's another reason why I want my players to watch the other guy every minute.

Sometimes you can upset a pitcher just by making him *think* you've got his signs even when you haven't. I was coaching on third once in Brooklyn, and I kept needling the pitcher all afternoon. I told him I knew what he was throwing and even though he didn't pay any attention it was obvious that I was getting under his skin. Lavagetto came up in the seventh or eighth inning and hit a screwball into the seats for a home run. As Cookie trotted around the bases, the pitcher turned and screamed at me, "You little bastard, I'll kill you if you steal any more signs from me." He didn't know it then and may not know it now, but I never did catch on to what he was throwing.

Baseball is a many-sided game. It presents a series of challenges, and it's always loaded with angles. The most important one of all, if it were possible to get it, would be a fool-proof system for flashing signs. Nobody's ever going to find one, but at least you can make it as tough as possible for the other guy. Sooner or later, no matter how good you are, he's going to crack the code. I ought to know. I've been doing it for more than 30 years.

—Chuck Dressen & Al Hirshberg

Cattle Drive At 60 MPH

[*Continued from page* 48]

It was 3:10 p.m. (Mountain Standard Time) when we ended our round-tripping of the train to the accompaniment of curious, snuffling hogs, blatting sheep and a few mildly protesting cows. We had made the acquaintance of Conductor Richard F. Truex and parked our grips in a caboose that looked older than I am and certainly more beat up. Our plan was to ride in the diesel while daylight lasted, then figure a way to get back into the caboose for the night run. You've no idea how scared a man can get just from figuring.

We climbed the ladder into the diesel cab like old hands, and met Engineer Gerald W. Leavitt, Fireman L. H. Allmendinger and Head-end Brakeman Wessly Johnson. Leavitt and Conductor Truex run the show, but Allmendinger and Johnson are qualified to take over if either of the former comes down with, say, a case of the sniffles.

Jerry Leavitt is a horny-handed, stocky man not much over 5½ feet tall, who sets his swivel chair on the top notch to guarantee a clear view out the windshield—that's all he needs to put him on a level with the best engineer on any road. I've given credit to passenger engineers for handling air, but Leavitt was to be the first man to show me the infinitely more complicated job of braking a long, snaky freight—and a hotshotter at that—over mountain trackage.

A long passenger train is 18 to 20 cars. With 80 to 100 cars on a freight, the hoghead has his problems multiplied in proportion. Air pressure plays tricks when it must travel almost a mile to hit the brakes on the rear trucks; by that time some of the head-end cars may be sliding wheels. Or maybe the engineer decides he must gain speed quickly for an upgrade. His engine bounds forward, jerking slack out of the train car by car, and the front end may be hitting 20 mph faster than the rear when all the slack finally comes out. Result: the caboose is snatched up abruptly in crack-the-whip fashion, thus dampening a beautiful friendship between engineer and conductor, while the latter perhaps is taking hot coffee off the crummy stove.

The bright-yellow stock cars of the DLS come into the North Yard, four miles out of Salt Lake City, on a stub run. Branch and feeder lines from Montana, Idaho, Wyoming and nearby states have furnished the livestock. In the North Yard brakies make up the train, including Denver & Rio Grande Western RR shipments (remaining in their own black cars), and here they tie on the real power—three or four diesel units with 1,500 horsepower per unit.

The Stocker is scheduled to leave North Yard at 12:30 p.m. daily, just after a heavy lunch for the animals. Hogs and sheep ride in double-deck cars which, like all stock "cages," have slatted sides for open ventilation. Completing the air-conditioning, tops and ends of cars are heavily coated with aluminum paint, a sun-repellent reducing inside temperatures 5 to 10 degrees.

During the fall roundups, the livestock luxury train operates in two sections almost every day. The old Chisholm Trail was just a lone prairie compared with this modern cattle drive, which might be called the Joshua Trail. The route follows roughly that of the Mormons as they continued westward, and they named the cacti with upraised arms "Joshua trees" from the Bible verse that says, "Thou shalt follow the way of the trees."

We had four electromotive units with 6,000 horsepower, and every horse seemed to be kicking down the barn door when Leavitt took the highball sign from Big Dick Truex and started weaving out of the yards. After crawling briefly through residential districts, suburban traffic and over both the D&RGW and the Western Pacific crossings, Jerry Leavitt began to let her out to the full mile-a-minute speed, because at Lake Point, only 20 miles out, he would tackle the Oquirrh Mountains.

This EMD diesel combination, 200 feet 16 inches long, grinding out a continuous tractive effort of more than 150,000 pounds, will knock off 71 mileposts per hour if called upon, and can be geared up easily to roll a lot faster. The V-16-cylinder engines (one per unit) race at top speed to start the load. Diesel cylinders are of a size just about right to stick your head into. And you might want to know that fuel is forced into the hot (1000° F.), compression chamber under 20,000 pounds pressure per square inch. The oil spurts through six holes of 9/1000-inch diameter at 800 miles an hour, so it becomes a mist, but if you could put your finger directly over one of those holes you would draw it back with a neat 9/1000-inch hole in it.

Dispatcher Hyde was giving us the high green lights he had promised and Engineer Leavitt was making good use of them. He pinched down to 50 on the curves and regained 60 quickly, without letting any slack into his train that he couldn't pull out smoothly. A freight train is the biggest thing that moves on land, and when I look back at one strung out on a gentle curve, exposing its full length to the wind-whipped eye, with the slip stream of pale diesel exhaust overhead looking something like a jet plane's vapor trail, well, I'll take this kind of sightseeing and you take the art galleries and guided tours. Throw in the fiery red sun ducking in and out behind far-off mountain peaks, followed soon by a full moon rolling over the rounded, sky-broad hills, and you will understand why there is loose talk about the Union Pacific charging their trainmen for the scenery.

Jerry Leavitt is 56 years old and came with the UP as fireman in 1919 after several years of head-end service on the D&RGW. He's been bending throttles for 15 years. Get him to tell you about the time his train hit a large milk truck on the Rio Grande line. The truck had tried to beat them to a crossing and dozens of 20-gallon milk cans flew like ghostly meteors in the air, bathing the locomotive and all hands in dripping white. The truck scattered in highly mobile pieces for 150 yards in every direction including straight down in the ground, and Leavitt expected the truck driver to be dead. But when they went back, they found him perched on the only undamaged milk can to be found, part of the steering wheel in one hand, swearing quietly and steadily, but miraculously unhurt.

One good reason for the Stock Special's cannonballing over this route is a strict federal law which says that livestock shall not be kept on a train longer than 36 hours without unloading for feed, water and rest. Earlier steam trains on the same haul always made the feed stop. How did the UP suddenly chop their fastest time in half, then take a couple hours off *that?* First, the diesels dispensed with helper engines on tough grades, permitted higher speeds on tight curves and faster acceleration. CTC dispatching kept

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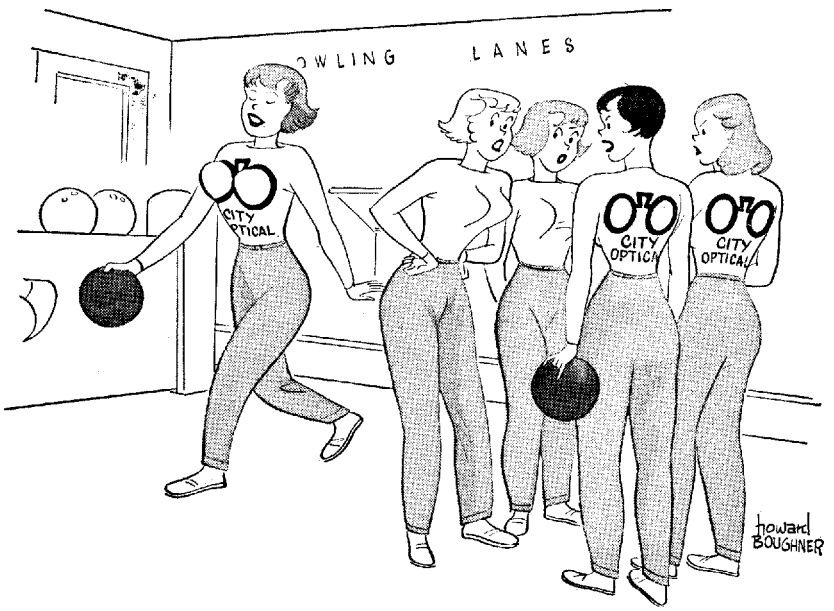


"She says she's captain, and she'll wear her sweater any way she wants."

the specials rolling. And finally the yellow-and-aluminum stock cars themselves were custom made on passenger-car designs. The UP has 800 of them, nearly all on roller bearings. They are pulled by rubberized draft gears, absorbing coupling shock and almost eliminating one of the greatest derailers of freight trains—the pulled drawbar or "jerked lung."

Jerry Leavitt was giving the Oquirrh Mountains hell. There's a grade of only .8 per cent here, from Lake Point to Stockton, but it's a tiresome 22 miles long. Before topping that the diesels are again dynamiting. By the sound it wouldn't surprise *me* to learn that there was a little dynamite in the fuel. Back in 1680 a Dutch scientist named Christian Huygens experimented with an internal combustion engine fueled by gunpowder. He had it on paper and started a working model, but unfortunately that is the last trace of Professor Huygens I can find.

We roared on toward the summit and I wondered what had become of Headbrakey Johnson.

"Back in the trailing A unit," Larry Allmendinger assured me.

He offered to show me the workings of the diesel combination, leading the way through the little soundproofed door at his back. It was the first time I'd gone inside a diesel engine room when the engineer had it revved up near the peak on a long pull. My eardrums didn't stop vibrating for days. You have to brush the sides of the laboring, hammering, yammering monsters in order to pass through. Fearsome.

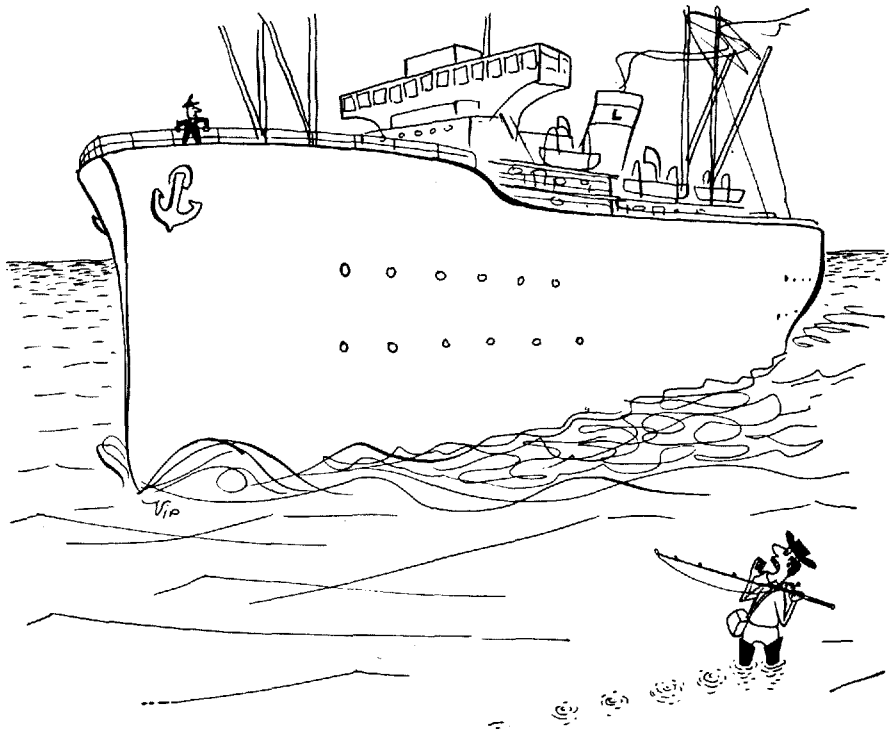
I learned to nod wisely and spare my tonsils as the fireman explained things about a diesel's guts which I don't even want to understand. We reached the trailing unit's cab finally, and it was blessedly quiet. Brakey Johnson was there, sure enough, enjoying the view back over the length of the train and alert for anything amiss—hot box, dragging undergear, the telltale lurching of a car. He kept this eyes peeled, too, for a waving speck on the side of the caboose—the rear-end brakey using sign language. No air-whistle lines connect conductor and engineer on a freight; it's all done with hand signals or, at night, by lanterns —"bugs."

The four diesel units were arranged in an A-B-B-A line-up, the "A" units having cab controls and facing in opposite directions. With lights out, the trailing unit's cab is the best spot for watching a train beat its way over mountains and around long curves. The windshield, high enough to top the cars, commands a train-length view. You become aware, in the relative calm of this cab, of the rhythmic clicking of the wheels, and the raucous blare of the donkey-like air horn now seems far ahead instead of coming out through your nose.

But I had to leave it and get back to the engineer. Leavitt kept the speedometer needle steady on the 60 mark. You might think he'd gone absentminded with that straight-ahead gaze he keeps even when talking to you, because on downgrades the needle creeps just a bit over the regulation mark (60 on straight track, 50 on curves, "unless otherwise restricted"), but he checks the rumbling string of 5,500 tons with one hand on the air-brake valve to bleed off carefully six to eight pounds' pressure before the free-rolling tonnage can "run up on him." On a train this length, the possible slack is at least 100 feet; he could jerk his string in two unless that play is handled with regard for power, momentum and grade.

The railroad seemed to be all ours. Only once did Dispatcher Hyde weaken my faith in his work at the mighty CTC organ, when he popped a yellow signal just ahead of us. Allmendinger instantly caroled, "Yello-o-o!" Leavitt had squeezed the throttle to a grinding 30 by the time he was passing the signal, and the air valve was spitting like a short-tempered bobcat when the siding switch came up green and we howled past a time freight sidelined "in the hole"—a finely shaved meet planned *and executed* by our dispatcher friend nearly a hundred miles away.

Now the diesel's headlight began to show full strength in the fast-dropping twilight, and the stabbing finger danced a flickering pale yellow on gleaming rails. Union Pacific locomotives burn their headlights day and night. Across plains and valleys these powerful lamps compete with the sun itself, and motorists, truck drivers, farmers in wagons, even prospectors with burros, at any hour can



"How far is the deep water?"

spot an oncoming streamliner by this flashing light before observing the train itself. It's an important safety measure.

If Dispatcher Hyde back in Salt Lake had figured our meet a bit too close the worst that could have happened would have been slowing the hotshot or stopping it briefly until the other train cleared the main line. The CTC machinery in setting up the siding signal for one train automatically raises a slow signal ahead to tell the opposing engineer to get under control, and follows with a red stop signal at his end of the siding until the first train is safely in the sidetrack—at least a two-mile margin of safety.

Except for certain short stretches requiring unusual caution, the roller-bearing Stocker has no slowdowns or stops except at division points, and holds the main line while other trains hit the sidings—unless The City of Los Angeles streamliner is concerned. The DLS schedule is arranged so that The City of L.A. ordinarily overtakes it at Las Vegas, Nevada, where the Special must lose 45 minutes anyway for crew changes and inspection.

As we approached the 6,060-foot altitude of Boulter, Utah, Leavitt switched on the Mars light. The Mars is a combination red light and searchlight revolving in a figure 8 and placed just below the fixed head beacon. It gives the engineer a preview of upcoming curves and fuller light on adjacent tracks, and it's very handy to nail down the attention of a motorist who seems headed for a draw at the crossing. Student pilots of Nellis Air Force Base (near Las Vegas) once found these swinging night lights were an irresistible temptation to buzz the trains, but after a couple of cadets had been washed out as a result, the sport lost its humor.

The 4,000-foot barnyard Pullman bawled and clattered on into the night. So far, Jerry Leavitt had spilled air only four times in 207 miles despite a lot of hill-and-hump running. The train is regularly due in Los Angeles' East Yard at 3:30 p.m. (PST) the day after departure. But because its operating schedule is a complete blank between subdivision points, it often beats the advertised time. Today, despite the delayed start, Jerry Leavitt's trackwise wheeling had already sneaked back about 10 minutes when Ed Schafer and I began to discuss the problem of getting back to the caboose.

"Do we walk over the top?" I asked, for the benefit of Leavitt. The question was a screwy one—who can walk over a string of cars tangoing not only like, but at, 60? No other way occurred to me, though, considering the pressure of lost time. Your reporter, who once caused the 20th Century Limited to stop out in the fields, entertained no such ideas about the Livestock Dispatch.

"No top-walking on *this* train," said Leavitt with what was just possibly a smile. "At Lynndyl there's an easy downgrade. I'll drop you off there and johnwalk past the station so you can hang on the rear end."

Mr. Leavitt is a gentleman. We were wheeling then on the slope between Tintic and Jericho where the track drops 1,063 feet in 33 miles. Lynndyl consists of a station, two passing tracks, a small café and a modest light for each, as far as I could see in the darkness after we hit the ground. I couldn't swear the DLS made a full stop; it was so smooth and quick that the rear cars probably never quit rolling. One moot and sticky point churned in my mind: how fast did the engineer mean when he said "johnwalk?" If a freight can run 71 miles an hour, does it "walk" at 25? Before we could ask, or say goodbye to Brakey Johnson, the diesels started drumming in wild uproar again. Schafer and I strolled toward the station, greeted—derisively, I thought—by grunting pigs and other four-footed tourists snugly aboard, aroused by the halt. The Stocker got into stride rapidly on the slight downgrade.

"You pretty good at hanging freights on the fly?" Ed asked unconcernedly.

"Fair," I lied, with all the unconcern momentarily available. Then, like a man trying to talk up his handicap in a golf game, I added, "I'm out of practice—nigh onto twenty years now since I went side-door Pullman."

Leavitt had the hotshot rolling at least 20 miles an hour now. Each car seemed to whip by. In my book it says never try to hang the side of anything moving faster than you can run. Put me down for a lively 12 mph—in 10-yard spurts.

"You take the front of the caboose," Schafer offered, "and I'll get the rear end after I see you're on."

"Any hotels in this town?" I asked. It seemed to me the caboose lights should be showing up pronto, but as my eyes grew more accustomed to the moonlit darkness I could see we were on the wrong side of the curving train to spot the crummy.

"Well, the Pony Express stops here about midnight," my hobo companion said grimly.

"Doesn't surprise me a bit," I popped out before I remembered that the Pony was no longer a horse, but a train. I might have kicked around jollities about flagging it with hay, but Schafer had moved over to the pie shack. Holding open the screen door, he was shouting something at the slightly surprised waitress. He kept jerking his head back to watch the train and around again toward the girl, digging in his pocket. And the Stocker rolled merrily on.

"Here it is!" I yelled at him. The assistant to the director of public relations came loping back with his hands full of something and at that moment Jerry Leavitt made his 86-car train squat right down to pick us up. It was moving no more than 5 or 6 miles an hour as I grabbed the curved handrail of the caboose and swung up on the front end while Schafer expertly hopped aboard the rear with one hand. Leavitt let it coast a few seconds longer—in case we were extra clumsy—then slapped the power on and we seemed to be at 60 again by the time we'd shaken hands with rear-end brakeman, Robert Larsen, and said hello to Skipper Truex.

Mind you, Engineer Leavitt put the Stocker through this maneuver blind. He had picked up speed for most of the train's length, checked it to a walk while the rear end passed the station, and promptly highballed again. He couldn't be sure we were aboard because he couldn't see us, but if we weren't it wasn't his fault. No lantern signals from the caboose helped him—Jerry Leavitt simply had the feel of his train. Though it varies, from trip to trip, anywhere from 70 to 100 cars in length, always in the back of his mind he is calculating, by speed and elapsed time, where the caboose is or will

be at critical points. In the caboose there is a brake valve, and the conductor can pull the air on him for an emergency halt, but this and the lanterns sum up their communication en route.

Brakey Larsen stepped back on the rear platform as Lynndyl quickly lost itself in the badlands, and "spiked a couple of torches"—that is, he darted two red flares into the roadbed to warn the train following, if it was closer than due, that the DLS was just ahead. The fusees would burn 10 minutes, then fizzle out.

Big Dick Truex is 60 years old and has been with the UP since 1920, the last 16 years as a conductor. He stands about 6 feet 3 and must weigh close to 225, very little of this being fat although it could be said that he eats regularly. Years ago Truex was a brakeman on the old Cripple Creek Short Line in Colorado, a road of 5-percent grades, twisting rails and no brakes worth mentioning. He and his fellow "pinheads" (so called from the link-and-pin couplings then in use) on such grades would "deck-orate and tie 'em down" on whistle signals from the engineer—climb to the car tops and set hand brakes with the levering aid of stout wooden clubs.

Truex finished some paper work at his corner office and invited us upstairs into the cupola. This observation tower puts the eye a good three feet higher than any other point on the train, its top being more than 16 feet above the rails. While it sightsees fine, its seats are sparingly covered benches along either side and the sway of the car had me hanging on constantly with tooth skin and three hands. A sudden lurch can toss the unwary—people with two hands—over the unguarded ladder to the aisle 10 feet below.

Cabooses lurch several million miles in their lifetimes. Most freight conductors say they prefer old-style crummies like this one to the modern all-steel shacks, of which the UP has plenty. The old ones have "Q"-type trucks, which are partly wood in construction. The jolting of the rails looses the bolts holding the hefty hunks of wood to the truck frames, and the resulting give makes for a good shock-absorbing ride—they tell me. But the old boys will soon be replaced by the steel crates. Personally I was ready to make the switch that night.

In the darkened cupola Conductor Truex rocked easily with the galloping caboose. As he eyed the serpentine length of the cow cages ahead, he regaled us with more memories of the Cripple Creek line. And as we sat there drinking in his gravelly-voiced stories, we munched on the pie Ed Schafer had scooped up the last minute at Lynndyl.

"Coming down out of the mountains one night," Big Dick said, "we had a string of merchandise on a five percent grade. No air brakes then, of course. Engineer was a young hogger in a hurry to get back to town. A circus was going on and he wanted to see it. Crazy sonofabitch. I was braking on the rear and began to think he was going to take off and fly on some of those curves. Suddenly he began blowing his head off, whistling for us to deck-orate. Me, I was already skinning for the top. But he hadn't given us enough time.

"I figured the train was getting out of control. And when I looked up and saw this damn hogger and his tallow-pot—engineer and fireman to you—running like hell down the top of the cars themselves, toward the rear end, I was what you might say pretty sure. That engine was fuming on down the grade, and our hand brakes might as well have been rubber bands. The side rods flew from the engine and sheared the sides off the cab—chunks of locomotive littering up the air. We knew there was a sharp curve at the bottom of this grade, and that it was probably going to be our getting-off place. No use our hopping off and joinin' the birds—too many big rocks and cliffs. There wasn't much left of the engine but wheels and boiler when we piled into the curve, but that fool engineer got to see his circus after all. Some way—I'll never know how—she hung on the rails, but for years that curve was known as 'Junk Junction.' Practically made scrap out of one whole locomotive right then."

Once out of the Salt Lake City area the Special hits its best average speed, booming along at 39.4 mph over grades ranging from 1.6 to 2.2 percent. But from the third subdivision on it gradually slows down, until by the time it crawls across the desert into Los Angeles it's working its muscles to bit the 20.2 mark.

About 8:45 p.m. we saw the lights of Milford, Utah. The Stocker has a scheduled 15-minute stop there for a change of crews. It was our last chance to quit the train before the wee-hour layover at Las Vegas. The temptation to stay on was heavy, but I knew that diesel cab would get awfully warm skirting Death Valley. And I had a hunch that "Q"-trucked cabooses were built by far-sighted superintendents determined to keep the crew awake.

We were barely off the caboose steps when a station wagon drove up. A company car, it brings out a new rear-end crew every evening, taking the off-duty men to station or hotel. At the station we met Leavitt and Allmendinger again. Leavitt turned out to be a friend of the conductor of The City of Los Angeles steamliner, due through in a few minutes, and he helped us talk our way into a Pullman bedroom despite our grimy coveralls.

Come to think of it, damned if I wanted to ride any farther on a train where the hogs had cooler and easier riding than I did.

—Clyde Carley

Miracle Makers of Menlo Park

[*Continued from page 29*]

squeezed together the greater the friction, and the more powerful a blow they can absorb without damage. This tightness is maintained and controlled by a hydraulic system which automatically adjusts the plates according to the force of the impact.

Southern Pacific built an experimental car equipped with the system, and tested it on collisions up to 10 mph. It came through with flying colors, and they're now sending another experimental car around the country where it can bang into other cars in all yards and under all conditions. If it holds up as well as the tests indicated, they believe they'll have the biggest boon to railroading since the James gang was cleaned out of Missouri.

A problem that hadn't been licked by either the Air Force or the California aircraft industry was how to flush-mount radio, navigation and radar antennas on airplanes in such a way that external drag would be cut down and economy of operation stepped up. SRI's communication experts solved that one, and the antennas they designed are now in use on 26 different types of aircraft.

It was Uncle Sam who presented SRI with one of its toughest riddles—the mystery of the Alaskan fog. It seemed that whenever the temperature dropped under 40 below a thin layer of fog would form over each of the Air Force bases in Alaska. This played hell with flying operations, and the desperate fly boys asked SRI to find out what caused the fog and how to get rid of it.

So a team of SRI experts packed their parkas and took off for Alaska. Everything was going fine until they ran out of winter and, therefore, out of fog. They climbed over this hurdle by going back to California and creating their own "Little Alaska"—a kind of super home-freezer in which the arctic climate could be reproduced at will.

They soon discovered that the mystery mist was actually an ice fog. Such a fog never develops in an air mass unless there is a source of water vapor nearby, and this was the clue that led to the solution. The bases were pouring tons of water vapor into the air from the combustion of the fuel they burned for heat and light. When the vapor combined with the cold air it froze and produced the fog. SRI told them they could install special machines to remove the water vapor from the exhaust gases, raise their exhaust stacks and increase the velocity of the escaping gases so they'd be forced harmlessly into the atmosphere; or else they could move their runways far enough from the main buildings so they'd be out of the fog area.

A totally different problem came from a big Hollywood mouse-and-duck man named Disney, who planned to build the largest amusement park in the West and wanted to know where to put it, and how big to make it. His experts had pretty well decided on the San Fernando Valley area, but decided to see what SRI thought. SRI began by systematically digging through the records of the New York and Chicago World's Fairs, plus most of the country's big amusement parks. Then they researched Disney's problem down to the last detail, including such data as how many people would be buying hamburgers and soda pop at any given hour. (Estimated maximum: 7,000.) They finally decided the best spot was Anaheim, California, and if you're ever out that way, be sure and take the kids to the 16-acre, $10 million phantasmagoria known as Disneyland.

Occasionally the great brains at SRI produce something besides mathematical or chemical marvels. A visitor dropped into the engineering division during a recent coffee break and found everybody but one man relaxing over coffee cups and cigarettes. The non-conformist was hunched over his desk, glueing a long hair plucked from his own head to the leg of a horsefly. Having accomplished this delicate operation, he affixed a miniature pennant to the other end of the hair. Then he released the horsefly.

It flew around the laboratory several times trailing its tiny banner. And on the banner, in tiny but unmistakable letters, was the inscription, "EAT AT JOE'S."

SRI was born in 1947 in, appropriately enough, an abandoned hospital. A group of California businessmen had been bemoaning the fact that the dynamic, fast-growing West Coast industries didn't have a single independent research organization to help them solve their technological problems, and hit on the idea of starting one. (There are eight such organizations in the country, and SRI is already the third largest.) The businessmen got off do a flying start by obtaining the official blessing of Stanford University and a tall, craggy, energetic angel with the unlikely name of Atholl McBean. A vastly energetic man in his 70's, McBean ran a tile-ceramics manufacturing business, and didn't see why he should take his worries to eastern researchers. Stanford agreed but didn't have the necessary cash, so McBean approached other West Coast industrialists and amassed a kitty of $100,000. SRI was in business.

But business was lousy. The institute hired a staff of 25 people and installed them in an old Army hospital, and that was about as far as they got. None of them seemed to have any clear idea of where they were going, how they would get there, and what they would do when they arrived. What they needed was a director who could put the show on the road. They finally found one in the person of a short, stubby, bespectacled, 37-year-old Indiana Quaker named Jesse Edward Hobson.

Hobson had spent most of his life doing things he didn't like to do. He had been born and raised on a farm, and hated farming. His father talked him into studying electrical engineering, despite the fact that he didn't like that, either. He graduated from Purdue in 1932 with a B.S. in electrical engineering, ranking either first or second in his class (he isn't sure which). He stayed around long enough to get a master's degree, and went to California Institute of Technology on a fellowship and nailed down his Ph.D. He still didn't like electrical engineering, and didn't even think he was very good at it. "If we needed a new light switch in my house, I'd have to hire an electrician," he said recently.

Hobson taught college for a few years and then went to work for Westinghouse. He hated it, but while there was named "the outstanding young electrical engineer of the United States" by the national honorary electrical engineering society. He dragged through another year at Westinghouse and then went back to teaching. In 1944 he was hired as director of the Armour Research Foundation, despite the fact that he "wasn't really very interested in research."

It was while he was at Armour that the troubled bosses of SRI got wind of him, and asked if he'd take over. Hobson went out and gave the fledgling institute the once-over, found it falling on its face and realized that it was the biggest and possibly the most rewarding challenge he'd ever faced. He took the job.

He immediately realized that what SRI needed was something to sell, so he asked Stanford for a loan of a half-million dollars to hire the top scientists in the world. Somewhat to his surprise Stanford agreed, and by the fall of 1948, Hobson had a staff of 100 technicians and an empty treasury. Some of SRI's executives thought the solution to their financial problems was to start cutting back, but the board of directors decided to stick with Hobson and borrowed $600,-

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"It worked fine!"

000 from six San Francisco banks. The banks promptly wrote the loans off as bad debts.

The following spring found the Institute losing $50,000 a month and Hobson in the hospital for an operation on his foot. A committee of his top brass called on him and suggested that they fire half the staff and try to hang on. "The hell with that," Hobson said. "I don't give a damn how much money we're losing now; we'll be in the black by a year from June."

As soon as he was out of the hospital Hobson appointed himself his own public-relations department and went on a tour of the West, speaking to industrialists by the dozens, selling them on SRI. He began lining up clients who told other companies, and pretty soon SRI was working full blast. And in June 1950, right on schedule, SRI climbed into the black. It's never stopped climbing. Currently it is carrying on about 400 research projects a year, and it's long since paid the $600,000 back to the startled bankers.

Besides recruiting some of the top names in science, Hobson has acquired some of the fanciest and costliest gadgets to be found anywhere west of Oak Ridge. They include such handy little items as a $25,000 mass spectrometer, an emission spectrograph worth about the same, a pair of X-ray diffraction units costing $30,000 and a 4,000-curie chunk of radioactive Cobalt 60. But the fanciest and costliest gadget of all is one which the Institute designed and developed for Army ordnance. It's a $200,000 proton bombarder, or ion-scattering analyzer.

This six-ton monster took the Institute three years of work. In simple terms, it's a kind of super sleuth so powerful and precise that it can detect the presence of any substance, no matter how little of it there is to examine. To determine what lies on a given surface the bombarder fires a beam of protons, all moving at the same speed. Each proton strikes a surface atom and bounces off, just as one billiard ball bounces off another. The velocities of the protons after impact are measured, and from this is calculated the atomic weights of the atoms hit. And this, if you are still with me, enables the bombarder to identify almost any substance, and to study the effects on surfaces of such things as corrosion, catalysts, friction and detergents. The Army brass, once they figured out what they had, were delighted.

With such an array of paraphernalia and cerebral power, Hobson has been able to sell his services to such titans as Standard Oil, Shell, Sylvania Electric, Meyerhauser Lumber, Sperry Gyroscope, Alcoa and RCA, not to mention Uncle Sam. For the past several years the government has been making heavy use of SRI skills for special work on things like atomic energy. Since good news has a way of spreading, SRI's reputation has gone far beyond the West. Italy hired the institute to tell her how to produce more consumer goods and put more people to work. Cuba wanted similar assistance. And a team from SRI went to Israel recently to help that new and struggling country to develop badly needed industry.

But the West is still Jesse Hobson's first, and it's still continuing to grow like fury (30,000 new people a month in California alone). New technological problems are constantly arising. One of the toughest of all involved coconut oil—more specifically, coconut oil that nobody wanted.

The problem was laid at SRI's door by a large western firm which imported coconut meat from Africa, extracted the oil and sold it for use in making soap. Business had been just dandy until something awful happened—detergents.

"Can you find some other uses for coconut oil?" asked the coconut oil men plaintively. The SRI men rolled up their sleeves and pretty soon had extracted from the oil a substance that was handy for shaping plastics and making them hold their form. The coconut oil company put the new substance—they called it a "plasticizer"—on the market, and things began looking up. But there still remained a lot of left-over coconut oil components, that the institute's chemists couldn't find any use for.

Meanwhile, another client had come in asking for help. This one was a big West Coast paint company which was having trouble with bubbles. It had developed a new rubber-base paint which, in addition to sundry other virtues, dried very quickly. In fact, it dried so quickly that the bubbles in the paint didn't have time to pop. The paint simply dried around them, leaving myriads of little pockmarks to mar the surface. The company wanted SRI to find a bubble-buster, or, to put it more scientifically, a defoamer.

Stanford's chemists tried all sorts of mixtures, but none quite turned the trick. Things were going equally bad for the people who were trying to find new uses for coconut oil. Then one day the two teams happened to drift together at the afternoon coffee break. "We're really stuck on this paint deal," said one of the bubble men. "We've got a chemical that will get rid of the bubbles, but we need some kind of oil base to use with it."

One of the coconut oil men sat bolt upright. "Just a second!" he yelled as he fished a notebook out of his pocket and riffled feverishly through it. "These left-over coconut-oil fats," he said. "One of them might interest you guys. It's got some funny molecular properties."

It was a pure hunch, but the bubble boys were in the market for hunches. They started running tests and found that one of the coconut-oil residues made a perfect base for a defoamer. The discovery made both companies happy. The

coconut people are now manufacturing the defoamer and cashing in on excess oils. The paint company is buying the defoamer and so are other paint companies all over the country. And nobody at SRI is about to suggest doing away with afternoon coffee breaks.

The detergent manufacturers, who almost dealt a *coup de grâce* to the coconut boys, also handed a thumping headache to the commercial tallow renderers. The soap makers had always bought most of the tallow and animal greases but with the rise of detergents, they stopped buying. The Pacific tallow industry hollered for help, and SRI took over.

Following the coconut oil lead, SRI's chemists worked out techniques for processing tallow into foundations for plasticizers and lubricants. They also discovered that tallow can be used in manufacturing floor coverings and curtains. Then their biologists learned that you can mix tallow with other feed and chickens will thrive on it, gaining more weight than with ordinary feed. This saved money for the poultry industry since fat-fed chickens don't need as much total food, and the tallow reduces the dusty quality, causing less of the stuff to blow away. The idea caught on in chicken-duck-and-turkey circles, and, in a recent three-month period, they used between 10 and 20 million pounds of tallow. The tallow makers aren't completely out of the woods yet, but they're seeing a lot more light.

SRI's solutions to the bubble-coconut-tallow problems is typical of what it calls "applied research," which is the Institute's principal stock-in-trade. It refers to the application of present knowledge to new technological problems, as and when they arise. But Jesse Hobson also has a powerful craving for new facts, and this involves "basic research," in which the institute conducts about 50 different projects a year.

But things like that cost money, and individual business firms can't afford to pick up the tab for random exploratory romps into the often vague realms of science. Therefore, Hobson has come up with a peculiarly practical idea—he sells lifetime "associate memberships" in the institute to big companies. Cost: $15,000 (tax deductible).

So far almost 100 firms have become SRI "associates." They get nothing for their money except their names on bronze plaques and a certain public-relations value. But they also get, as one SRI official put it, "a feeling that if they're helping us they're helping the West, and therefore helping themselves. And they are."

The money coughed up by SRI's angels goes to pay for basic research projects and to buy special equipment. It also helps to foot the bill for still another of Hobson's pet indulgences—projects of purely altruistic public service. SRI does these jobs without pay, or at far less pay than the jobs cost, to give a shot in the arm to various areas or groups of people in the West. One of the most recent beneficiaries of this scientific bread cast upon the waters was the Apache Indian tribe of Arizona.

The Apaches—or that portion of them living on what is known as the San Carlos Reservation, about 100 miles east of Phoenix—had, for many years, been subsisting on cattle. They did quite well until the price of meat went into its 1952 nose-dive. They had nothing to fall back on and were almost completely broke. SRI heard of their predicament and offered to make an exhaustive study of the reservation's resource potential and what could be done to exploit it, further offering to pay most of the expenses. The Apaches accepted the offer.

Research teams from SRI's economics division were only on the reservation a few days before they discovered that this was far more than an economic problem; it was a huge and complex problem in human reconstruction. For the Apaches were more than broke; they were demoralized. Falling income had led to unemployment and idleness, and idleness had provoked excessive drinking. There was a feeling of deep despair and hopelessness among the Indians. And behind it all lay the inability of a people scarcely out of the stone age to adjust to life in the atomic age.

For many months SRI specialists stalked the reservation poking into its farthest corners. Lumber experts inspected the timber resources. Mining men checked for mineral resources. Economists studied the tribal enterprises and how they were being run. The Institute even hired an anthropologist to live on the reservation for an entire summer, just talking to the Indians and learning their ways and their needs. The job was made even more complicated by the Apaches' inbred reticence and reserve when talking to the white man. After all, little more than a half-century had elapsed since they fought their savage, last ditch battles against the same race of men who said they were trying to help them.

Gradually, however, Hobson's men began to break through the massive Apache reserve and towering language barrier. They assembled a mountain of facts about the reservation and then submitted a 343-page report showing in fine detail how the Indians could support themselves. It involved making use of their timber, their dormant farm land, their potential mineral wealth, and their idle manpower.

Normally the job would have ended there. SRI had never done more than supply a client with the facts and then let him run with the ball, but the Indians were staggered by the enormity of the task that lay ahead of them. "You're not going to desert us?" pleaded an Apache leader. SRI didn't.

With SRI men making suggestions, the Apaches overhauled their tribal accounting system. They reorganized their tribal stores. SRI's experts needled them into putting fallow farm land back into production. And they persuaded the tribe to liberalize its leasing regulations so that white men might be induced to come and explore for minerals—and spend their money in the process.

The Apaches still have a long way to go but the miasma of despair which once

"Don't put him on the carpet. He isn't housebroken."

lay heavy upon them is fast dissipating. They know now that they have friends, and that their friends will continue to help them. "We'll stay in the picture as long as we're needed," promised one of SRI's top men.

As a result of SRI's success, a blue-ribbon advisory board, consisting of some of Arizona's most prominent men, has been set up to assist the Indians further. The U.S. commissioner of Indian affairs heard about SRI's work and set up a non-profit organization to raise funds to enable SRI and other research groups to help other tribes. And SRI has gotten two more calls for help—from the Navajos and the Mescalero Apaches of New Mexico.

One of the motivating forces behind Jesse Hobson's insistence on such money-losing projects is the do-gooder in him, the old Quaker would-be-missionary coming out. "I'm a crusader," he admits frankly. But a stronger one is his belief that if he can make the Indians self-sustaining and productive, they will contribute to the productivity of the country at large. And that is at the root of Hobson's philosophy—to promote productivity that will make life a little easier and the nation a little more secure.

SRI has never tackled an assignment it couldn't lick, but this is partly due to the fact that they don't take on jobs unless they're pretty sure they can be of help. Their toughest job, still not completely licked, was presented to SRI in 1947 by the Los Angeles oil industry. Largely through the jokes of such comedians as Bob Hope, this problem has come to the attention of every American—namely, smog. The oil men had gotten sick of taking all the blame for smog and hired SRI, hoping to prove that they wren't the only offenders. The institute established an Air Pollution Laboratory (the first of its kind in the country) and, to date, has spent over $3 million. They have long since cleared the oil industry of total blame, but have yet to clear away the smog. As one SRI scientist said, "Never was there a problem which seemed so simple to the public, and never was there one which turned out to be so tough."

To make a rough definition, smog is fog that has become polluted by some kind of industrial gas, smoke, dust, or whatever. SRI's first two problems were discovering whether smog (not fog) was actually present in a suspected area, and then determining what the smog was made of. Detection is tougher than you might think because the irritants are present in minute quantities, sometimes only a few parts per billion parts of air. The solution? Weeds. SRI's botanists found that different weeds are sensitive to different chemicals, and after exhaustive tests they got them all labeled. Now each smog sleuth comes equipped with an album full of color photographs of weeds in various stages of irritation, enabling him to immediately spot the type of pollution present and determine how much damage it's doing.

But it's one thing to analyze smog and another to get rid of it. SRI has come up with many ingenious devices which are helping them to lick the problem—a "transmissometer" which measures the effect of smog on visibility; a "smog chamber" which tests the amount of eye irritation per square inch of smog; an "aerosol camera" which photographs air particles no larger than 5/100,000 of a cubic inch. They have broken down smog

so thoroughly that they can make out a prescription for all types and reproduce them at will. But despite all this, as Hobson says, "We will never lick smog. Only people can lick it." SRI can supply the facts; the people will have to act on them.

In defense of SRI, it might be pointed out that Los Angeles would be completely uninhabitable if the city hadn't taken the anti-smog measures that SRI recommended. And, despite the fact that they haven't licked the smog problem, SRI's reputation for smog savvy has brought industries and towns from all over the country to Menlo Park for advice. They may not yet have brought Los Angeles out of the dark ages, but their findings have kept many other locations from becoming smog-bound.

Hobson is working on many projects a lot less tangible than smog. Right at the moment he's fascinated with the possibilities of solar energy. He believes that we're fast using up our conventional sources of energy—coal, oil, even hydroelectric power—and one of these days we're going to be in a jam. And where to look for new power? "Where else," says Hobson, "but the sun?" He points out that we're using only half of 1 percent of the sun's energy—mainly through plant growth. "The other 99½ percent is there for the taking."

To make a start on the problem of how to take it, SRI (again at its own expense) is setting out to bring together all the world's scattered knowledge about solar energy. There has never been a systematic exchange of information in this field. Nobody even knows which scientists are working on solar energy. And so Hobson's men have standing orders: whenever they travel around the world on various assignments they must track down every clue that may turn up some obscure solar scientist doing useful experimentation.

So far they've found solar-energy work going on in such distant places as Egypt, India, France and Japan. This knowledge-collecting phase of the project came together in a world symposium on solar energy held recently in Phoenix. Principal sponsor? The Stanford Research Institute. "Now is the time," Hobson says, "to organize a major effort—one of the same magnitude as that for the atomic bomb. Five years before the bomb, we thought it couldn't be built within two generations. Well, I think the next 25 years will witness the practical application of solar energy."

Jesse Hobson may not be around to see it happen, but it's a dead sure cinch that when the sun is finally harnessed for the well-being of mankind, the miracle makers of Menlo Park will have had a firm hand in the process.

—Joseph Stocker

IN NEXT MONTH'S TRUE

Never-before-published facts on the Holohan case, revealed by the man who broke the story, Mike Stern.

TRUE MAGAZINE

"He is *not* in! I stopped at a clearance sale during my lunch hour."

Test of A Man

[*Continued from page 27*]

"Possibly, but it should clear the air one way on another. There may be an elephant spearing. You're lucky; in 15 years I've only seen it once before myself."

As we drove to the village he filled me in on what had happened. The trouble had started some three months before with a big initiation ceremony, the annual rite which signifies that a group of Nuer boys have become men. A 17-year-old youth named Juda was particularly involved, chiefly because he was no ordinary youth but the leader of his age group and the grandson of a famous prophet.

The ritual is simple, George said, centering around a stone knife. Circumcision, a classic rite sometimes all-important among primitive people, is not practiced here. The cutting in this case is in the forehead—six parallel grooves, starting just over the eyebrow and running horizontally from ear to ear. The scars last a lifetime. Anyone in the Sudan can tell at a glance that a man so marked is a Nuer, and every Nuer male is proud of this distinction.

"Visitors began pouring into the village days before the ceremony," George recalled. "There was a good deal of drumming and beer-drinking. They even imported a special *gaar* (surgeon)."

On the evening before the day of the ceremony, Juda and the members of his age-group were shut into a large hut to prepare themselves in spirit for the test to come. Juda stretched his lean, 6 feet 2 frame upon his sleeping skins in a corner. "He apparently seemed confident," the D.C. said, "although I doubt that he slept much. I don't think I would have."

Juda would be first to receive the *gaar's* knife. It was a great honor, for the Nuer are prideful of enduring all things without crying out. Only this war-like courage has saved their brief grazing strip beside the Nile from the Dinka, whose million people completely surround them. Juda was doubly privileged because his courage would make brave those of his age group who followed him. If none cried out, as is sometimes the case, the Nuer nation is said to be *ninum kas*, or reborn.

Juda had been chosen because he seemed strong, and proud because it did honor to his father and to his grandfather, Gwek Ngundeng, a noted prophet and wizard who had made fecund barren women, forestalled a thousand cattle plagues, called down rain in the dry season, and led the last great Nuer uprising.

"All the tribes in Africa are falling apart," George said, "and we'll need strong leaders to hold the people together as they come in contact with civilization. I liked this boy. He seemed bright but not fanatical, and being the prophet's grandson gave him a great political advantage. All he had to do was pass his *gaar* test."

This was the scene then, according to the story George had heard, as the 17-year-olds were led out of their hut. The drums beat to a frenzy, and the new initiates were escorted to the center of the village. Rank after rank of cattle and leopard-skin chiefs and witch doctors were assembled, along with Juda's relatives and the friends of his relatives, rich men and brave warriors. And in a prominent place inside the throng of ordinary tribesmen, the marriageable maidens of the nearby villages were gathered—watching closely for signs of fear in the new initiates.

The crescendo of shouting and chanting and drumming was so great that nothing could be heard as Juda's father shaved the young man's head and annointed it with oil.

Juda watched apparently unmoved as the *gaar* sharpened his stone knife upon another stone. The hole which blood would flow into was consecrated and covered with a firm grass ring, such as women use on their heads to carry water jugs. The throb of the heavy drums grew more insistent, and the long drums pounded out an unbroken series of high staccatos. Many of the Nuer on the fringe of the circle were unable to restrain themselves and broke into high, jumping dances. Those in the center were singing and chanting, and some of the maidens were screaming wildly.

Suddenly the *gaar* threw up his arms dramatically, and everyone fell silent. He nodded to Juda who lay down quickly on his back, placing his head upon the grass ring. The *gaar* squatted on his right side, held the knife over Juda's forehead, and paused—allowing the suspense to build. When he was satisfied that his audience would bear no more tension, he began to cut into the flesh.

The cuts are made from the center of the forehead, just above the brow, to well above the right ear. Since they must be permanent the cut is to the bone. The next incision is slit about a quarter of an inch above the first, and so on until six cuts have been completed. Then the left side of the forehead is similarly treated. If a vein should be slashed it is cauterized immediately with a red-hot iron from a nearby fire.

Juda began well. His breath came in painful gasps, but he made no sound. The beginning of a proud smile crept to the face of Juda's father.

But the *gaar* was slow, or perhaps his knife was dull. The audience leaned forward, holding its breath. The big test was yet to come—the cuting of the supra-orbital nerve. To cut it causes no great harm, but there is a sudden blinding explosion of pain.

In complete silence the knife moved forward. It slowed down and stopped. A murmur ran through the crowd. The knife sawed into flesh again, and then a shriek ripped the air—a long, shrill, tortured scream from the writhing form on the ground. A scream of terror and then another. The assembled Nuer broke into an uproar.

"What happened then?" I asked the D.C.

"They carried him unconscious into the hut. By the time he came to, all of

the scarring of the age-group had been done. His blood brothers had followed Juda's example, and almost without exception they had howled like hyenas in mate. This had been the most cowardly initiation within memory.

"There was no celebration afterwards," George added. "The visiting chiefs left without a word so as not to embarrass the fathers. Several cows were sacrificed. Everyone was plunged into gloom."

No male went to visit the initiates during their six-week convalescence. At the end of this time, with the badge of his cowardice healed, it must have seemed abundantly clear to Juda that he was no longer welcome in his father's house. It undoubtedly appeared even more certain that none of his uncles or cousins would contribute bride-wealth when it came time to marry.

What Juda and his age group faced, according to George who had seen it happen before, was a permanent silent treatment from all Nuer males, even down to the smallest boys. They would be barred from all tribal affairs, including hunts. Eventually some of the outcasts would steal wives, and then they would be expelled from the tribe and exposed to attacks from the Dinka raiders. In some cases they might even be killed by the Nuers themselves.

It's easy to understand Juda's despair and frustration. With one involuntary scream, his whole future had been destroyed. He thought about it for several days and then, without a word to anyone, he dropped out of sight.

"I just found out what happened to him," George said as we bumped along toward the village. "After I heard about the *gaar* ceremony I thought they might have murdered him, but my informant in the village insisted that he had just disappeared."

After brooding several days, Juda suddenly had one of those fantastic visions which appear so clearly only to youth, and he saw what he must do. He would hunt and kill an elephant, and thereby recover his lost honor. As there was no way for an outcast to engage in a hunt, he knew that he would have to kill the elephant alone.

There would be glory enough in that to compensate for a thousand screams. And there would be meat—enough for the entire village. The ivory itself would be enough to buy a wife, perhaps even two wives. That was the only answer.

"How was he going to get the elephant by himself," I asked. "Did he have a gun?"

"Good God, no!" The thought seemed to horrify George. "He was going to spear him!"

"Spear him? How can one man spear an elephant?" I asked. "It sounds like suicide."

George shrugged. "Anyway the boy is back. He hasn't killed his elephant, but he has shepherded a herd of them into Nuer territory for the first time in three years. The village is having a big powwow about it now, and there's sure to be a hunt."

What had happened to Juda? How had he brought back the elephant herd? George and I pieced it together several days later from Juda himself. Speaking slowly and very solemnly, Juda told how he had made his great decision some seven weeks earlier. After leaving the hut of his blood brothers, He stole into his father's house and took a small bag of *dura* (millet) and set off into the land of the Dinka.

This in itself was a tremendous decision, for the Nuer never dare to leave their grazing lands, except on major war campaigns. A lone Nuer found by the Dinka would probably be speared on the spot. But again there was no choice for Juda; if the elephants had not appeared in Nuer territory for three years he would have had to seek them elsewhere.

For six weeks Juda traveled by night and hunted mainly in the dead of noon, when the Dinka world rests from the sun. When his *dura* ran out he ate fruit, roots and a kind of sweet grass; he also followed the honey bird, which in certain parts of Africa seeks out man, guides him to honeycombs, and chirps eagerly until it is rewarded with a portion of the sweet. Several times Juda was recognized and pursued by Dinka spearmen, but he eluded them. Several times when he had great thirst he slipped into the Dinka corrals at night and drank the milk from a cow.

Finally, far to the east toward the Ethiopian border, he found the elephant herd. Nineteen cows and calves and a magnificent old bull—big, wise, with many scars and his ivory worn white from battle. Eagerly Juda followed the herd, admiring the great beasts, and at the same time studying the old bull hour after hour in search of a means of attack. But after several days of pursuit Juda realized that he had planned foolishly and boastfully. He brooded over this for several days. And then one night he evolved a daring plan. Instead of leading the tribe to the herd, he would guide the herd back to the tribe.

He knew that if the elephants were wounded or frightened, they would head for the Nile, and thus bring themselves within the Nuer grazing area. And the way to bring about injuries was to cause the Dinkas to attack them. So Juda began to guide the herd toward the heavily populated Dinka territory. He knew that his life was in greater danger every second, but he could see no other solution. By discreet noises at night and by showing himself during the day, he lured the herd deeper and deeper into the Dinka homeland. And then one day the Dinkas sighted the elephants, and a 100-man hunting party swarmed out and attacked the herd.

Watching from a distance, Juda saw the women bringing out torches as the drums beat and the Dinka warriors surrounded the elephants in an enormous circle. Steadily the circle grew smaller and smaller as the men moved forward. When they were within sight of each other the torches were touched to the dry grass and a ring of flame sprang up and raced in at the herd. The great beasts trumpted in confusion. At last, with a wild cry of terror, they faced into

"But how can I get a square picture with a round opening."

the flames and charged through the smoke and fire to freedom.

As they stampeded out the Dinka stabbed longhandled torches into their faces in an attempt to blind them. Juda was sickened as he lay there helplessly watching the slaughter.

It must have been a clumsy, chaotic, unsuccessful affair; the elephants crashed out of the flames easily, overrunning and trampling their tormentors in terror. Even the calves, whipped by the trunks of their mothers, dashed to safety. The old bull fought a rear-guard action, occasionally turning to charge in maddened frenzy. Juda saw him lunge into a small group of Dinka, pierce one warrior through the back with a tusk and hold the screaming hunter high in the air like a piece of meat on a spit. Then with a toss of his head the old bull cleared his tusk. The Dinka flew through the air and fell motionless, 40 feet away.

The old bull charged from hunter to hunter, disregarding the torches or smashing them out of his way with his flailing trunk. At least twice he turned deliberately to trample a fallen warrior. At last he lumbered into the bush after the herd. Only Juda followed.

The herd moved fast now, not only to escape pursuers but to reach the soothing mud of the Nile. They had not been burned badly, but even a slight burn is painful to an elephant, and in the dry season there are no big wallows in the savannaland of the Sudan. There is only the Nile, and in that region it is Nuer territory.

The herd moved 40 miles a day, constantly west, for three days. On the fourth day the elephants approached Nuer grazing lands and Juda left them. He had been gone more than seven weeks when he walked into his village in the quick red dawn of the next morning.

A crowd of children assembled silently at his heels and everywhere heads poked out of huts, curious heads staring at this boy who had screamed in the scarring and then one night had disappeared. But this was a different boy now. Juda was tired and walked with a slight limp, but there was purpose in his walk. He went into his hut and soon after, he and his father, dressed in ceremonial cloths, strode off to the council of warriors.

It was at this point, but several hours later, that George and I drove into the village. We were immediately surrounded by naked humanity, a hundred voices babbling at once, the men closest around the car and some of the young girls, also naked except for the briefest *cache-sexe*, dancing on the edge of the circle. This was an excited reception, far different from that of the day before, when we had been regarded only with idle curiosity.

George sat down on the hood of the Land Rover and began talking to the Nuer in their tribal dialect. A half hour later he got back in the car and we drove slowly through the crowd and out of the village. "The council's already been held," he said. "The hunting party has gone out."

"You don't sound very happy about it," I said. "The boy's proved himself, hasn't he?"

"Apparently not—he's leading the hunt. A boy that young never gets a chance to lead. And if he fails. . . ."

George went on to explain that Juda had only seven other hunters to help him tackle the big bull elephant. The Nuer never use more men than this, out of a feeling of sportsmanship, since the elephant is regarded as a former member of the tribe. For the same reason, the cry "I'm fighting!" always rings out just as the attack begins, to give the elephant fair warning.

Some bull elephants tower 12 feet tall at the shoulder and weigh two tons, with tusks which protrude from the jaw in a flashing 6-foot arc. All of them have trunks which can break a man's back if swung like a club or snap off his face if cracked like a whip.

"Do they always get him?" I asked.

"Not always. Win or lose, several hunters get smashed about. Not an easy thing to kill a brute like that even with eight men."

In a few minutes of bumpy driving down a faint trail we came upon a Nuer guide and parked the Land Rover in the thin shade of a thorn tree. Following the guide, we walked quickly through the bush on the trail of the hunting party.

"What happened back in the council?" I asked.

"As I understand it, Juda's father made the announcement that the herd was in Nuer territory," George replied, "and immediately the elders began picking out the eight best spearmen. All African tribes are crazy for the meat as well as the ivory, so this was important.

"Nobody apparently paid any special attention to Juda, until suddenly he walked into the middle of the council and began to talk. That took a bit of pluck; young warriors just don't make speeches, much less lead hunts, but he told them right out that he wanted to be the *ram mil koic juh*— the man who spears it first.

"There was a bit of to-do about this, as you can imagine," George commented dryly. "Many elders were outraged at this arrogance in a boy who had not even passed his *gaar* test. Others interrupted to point out that Juda had entered Dinka territory alone and, unaided, had brought back the herd. The dispute raged violently for some time, and finally resolved to the question of whether Juda would run from the bull at the critical moment and cause the hunt to fail.

Politics, as is sometimes the case, won the day for Juda. The old supporters of the wizard, Gwek Ngundeng, were eager to see his grandson vindicated and a new and strong leadership established in the tribe. Some undoubtedly hoped to be led in a new revolt against the government (George had carefully kept from appearing too friendly with the boy); others saw in young Juda the possibility for closer cooperation with the D.C., and with it better education and medical care. Some elders supported Juda merely in the hope of wiping out the recent *gaar* shame, others for fear that a highly vociferous minority would gain control of the tribe. At any rate, it was finally decided that Juda would lead the hunt and that his father would be *ram mil gam juh*, the man who spears it the second time. The honor of the family for all time rested upon the result.

"You can see why I'm a little concerned," George said as we pushed on through tall grass and yellow cane weeds. "If this hunt fails, the tribe could be split wide open. Then what happens is anybody's guess."

A few minutes later we came out on a broad prairie leading down to the Nile and studded with 10-foot-high abandoned ant hills. George began climbing them and surveying the grass with his binoculars. A few minutes later he said, "I think we can watch from here."

I joined him on the ant hill. The herd loomed up big through my glasses: 20 elephants, counting the calves, and one big bull. They were taking their mid-day rest beside a small clump of three acacias some 400 yards away.

"Notice that clump of grass just to the right of the farthest tree," George said. I watched for several minutes, and only once did I see the slightest wavering of the grass—as someone crawled toward the elephant. "That's the *ram mil koic juh*," he said. "The boy."

In spearing a wild elephant, as in shooting one, it is necessary to move in very close. Many white hunters in Africa put down elephants from 30 yards with their .500 magnums and consider this a dangerously near shot.

The shaft of a Nuer tribesman's spear is about 4½ feet long. The hide of an elephant is too tough to permit a thrown spear to inflict more than a negligible wound. Therefore, it is necessary to inject the spear like a hypodermic needle, with a quick thrust close to the skin, and the range at which the Nuer hunt elephants is somewhat less than 4½ feet. "Can't really blame the boy for taking his time," George declared mildly.

No, you really couldn't, I thought, watching the injured bull close-up. He was in a bad humor. He had a burn high on his right forcleg and another bad one on his rear quarters which the flies were after. Mud was caked on the bull's flanks where he had wallowed at the edge of the Nile to ease his pain. I kept watching the herd. There was no movement in the grass. Nothing but the blistering heat. The elephants stirred occasionally in the shade of the acacias, as the calves frisked about. The old bull leaned against a tree trying to ignore their romping, but several times he had no sooner dozed off than a calf charged up and woke him.

"They've got to box him in from the very beginning," George said. "Otherwise the boy won't have a chance. The bull will get him in the first charge."

"What about Juda? Will he fight?"

"I don't know," George said. "I wouldn't care to be in his position." We shifted on the ant hill and tried to get comfortable. For about an hour and a half we waited as the sun boiled down, taking turns watching through the glasses. The eight men crept forward,

easing into position. The tension mounted.

Suddenly George stiffened and said sharply, "Watch this!"

With a great show of annoyance at the calves, the bull had given up his leaning spot against the tree and was now shuffling slightly away from the herd. Then suddenly a lithe black body leaped into view not more than 10 yards in front of the bull. *"Kane nyieny!"* the hunter shrilled. The cows were awake and running at once, pushing the calves ahead of them. The old bull faced trouble and raised his trunk in a single bellicose trumpet. The figure danced before him.

it that the boy?" I asked.

"Yes. *Look out!"*

The bull charged with surprising speed, but seven men leaped as one from the grass beside the elephant. On either side they jabbed and slashed at the sinews of his forelegs. The bull lunged angrily to the right, and the four attackers on that side darted quickly away, with their spears held over their shoulders.

"I kill! I kill!" Juda shouted, jabbing in the elephant's face from the side. The bull wheeled on him but the slim figure

leapt away in the same motion. He stood again 10 yards in front of the elephant, slowly waving his spear over his head in a pendulum motion. The bull began to move toward him. Suddenly he bellowed in pain and his foreleg buckled momentarily as the hamstringers slipped in from behind. The bull lunged viciously, his tusks gouging up the ground. He recovered quickly and charged after them, but with a noticeable limp.

A figure George identified as Juda's father rose almost under his feet as the bull passed and with a mighty leap thrust his spear toward the earhole.

He did not hit but he did turn the elephant, and once again the boy danced in front of him as the spearmen scrambled away. The earhole is a fatal spot, if a spear can be thrust firmly, but it is too high. That is why the hamstringers must succeed in bringing the great beast to his knees. To thrust for the heart, just above the foreleg on line with the tip of the ear lobe, is possible. But the heart is deep in the body, and a bull will fight for minutes, even hours, after a successful heart thrust. Better to hamstring first, and then any thrust is possible, including the most difficult.

High and exactly in the center of an elephant's forehead, two inches above the eye level, is a circular area no bigger than a fist. This is a passage, deep into the brain itself, between the massive bone of the skull—a bone which can shatter a spear. One successful thrust here and the battle is over. But the size of a fist is small, and something must be done with the animal's battering, whipping trunk as the spearman dashes between the tusks.

The hamstringers crept in, jumped to their feet, slashed once and ran. The bull lashed his trunk with a furious cry and struck out at one of them, knocking him flat. The hunter got to his feet slowly, a great red streak of raw flesh about eight inches wide laced across his back. Time after time the Nuer warriors raced in at the forelegs, and each time they had to run in order to escape. Great gashes, inches across, were gapping in the elephant's legs, and both spears and spearmen were bloody from the surging fountain of dark red blood.

The old bull fought valiantly. He wheeled suddenly and snapped a spear out of the hand of an attacker. It broke, and for a moment he clutched the shaft in his trunk and flailed at the hamstringers with it. Finally the old bull could not run anymore. He turned slowly to one attacking side and then the other. One leg joint buckled and the bull dropped almost to the ground.

The attackers shouted hoarsely. The boy leaped high and poked his spear into the bull's face. The elephant struck out wildly with his trunk.

The attackers redoubled their efforts at the other foreleg, but with a great lurch the bull struggled to his feet. He turned to his left and began a short charge. One hunter was too close and the tusks slid into the lower part of his body. He screamed and was tossed into a crumpled heap 30 feet away.

The Nuer warriors attacked again and the bull made a quick turn and the front leg which had supported him before gave way. The elephant staggered and then crashed full onto his face.

Juda's father stabbed his lance through the trunk, pinning it for a second to the earth. The boy raced in without hesitation, knowing that the bull could wrench his trunk free in an instant and smash him down. Juda swiveled between the tusks themselves and pressed his body against the elephant's forehead. The head tossed but Juda was inside the range of the tusks, elephant hide scraping against his chest.

Juda moved instinctively, raising his spear above his head with both hands and plunging it into the elephant's forehead. The spear slid in easily about 18 inches. The boy let go and dodged. The elephant's head, with the spear in it, tossed once with a great piercing cry. The side of one tusk thumped against Juda's chest and knocked him down. But the danger was over—with one wild cry the elephant died.

George put down his glasses and we both sighed quietly with relief. "Well, he didn't run," I said.

"No," George replied, "he didn't run."

We walked over to see if we could help the injured hunter, but he also was dead. The other hunters moved off as the meat-cutters approached in the distance. Then Juda stood silently, waiting for a sign. An old man walked over and put his hand on Juda's shoulder. The boy was a warrior at last.—**Sandy Sanderson**

Man to Man Answers

[*Continued from page* 59]

Q: Can a sailboat sail faster than the wind? *C. R. Koontz, Longmont, Colo.*

A: No, but an ice boat can. A water craft has too much friction drag and displacement and is heavy, especially the larger yachts with iron or lead keels. An ice boat is extremely light in weight and friction drag, from the skates on which it rides, is slight. If traveling directly before the wind, the speed of an ice boat would not equal that of the wind. If it did, the sails would hang limp. But in sailing across the wind, especially at an angle of four points, or 45 degrees, the ice boat performs wonders and speeds of 100 mph or better have been attained. Ice boats are invariably sloop rigged and the pressure of wind on flat sails drawn well inboard is great. In fact, with the boat heading into the wind, the faster it travels the greater the pressure. This stepped-up power can impart only a forward motion and speeds of 50 or 60 mph are possible in comparatively light winds. Another use of sails on ice was popular at the close of the last century, especially on large bodies of water, such as the Mississippi River. A skater carried a triangular sail on a mast with a light boom attached to the other two corners. When this sail was properly handled, terrific speeds were possible, undoubtedly greater than man has ever traveled on his feet in any other way.

Q: What team and what coach have won the most Rose Bowl games? *Carl R. Nolte, St. Petersburg, Fla.*

A: Southern California has won the most games with nine out of the 10 bowl games played. Alabama has won four. S. C. three times won two years in succession. Its coach, Howard Jones, leads all others.

Q: Who invented the ski tow? *Clayton Coates, West Lebanon, N. H.*

A: Credit is given to Robert Royce. His tow was placed in operation January 28, 1934, at Woodstock, Vermont. He used 1,800 feet of 7/8 inch Manila rope to get a tow 900 feet up a slope. Power was furnished by a tractor.

Q: Which is more valuable, a perfect ruby or diamond? *R. Ardolino, New Haven, Conn.*

A: Authorities tell us it would be impossible to make a general statement on this. Size, texture and the way the stone was cut must be considered. Only by an expert's comparative examination can relative values be established.

Q: What is the origin of the bean-soup tradition in the U.S. Senate restaurant? *Harry C. Ford, Holland, Mich.*

A: W. Britcher, manager of the restaurant, tells us that he understands Senator Knute Nelson of Minnesota asked in 1907 that the soup be kept on the menu every day. Nelson died in 1923 but bean soup still appears daily.

Q: My dog died after being stung by a honey bee. Was there another reason? *Francis Lotta, Freeport, Ill.*

A: Certain human beings are extremely sensitive to the poison of bee and wasp stings. One or two stings can cause serious illness, and medical history records deaths due to wasp poisoning. Similarly, your dog was probably one of the rare ones to which stings are fatal.

Q: Why are fire-fighting vehicles without cabs for the drivers? *K. O'Donnell, Medford, Mass.*

A: The New York City Fire Department gives us three reasons: Unobstructed vision for the driver not only in streets but in deciding what to do as he nears a fire. Facility in getting in and out of trucks is increased. Maintenance problems (care of doors, windows, etc.), are reduced. Also, firemen do not take long rides, and helmet and rubber coat are ample protection in rain.

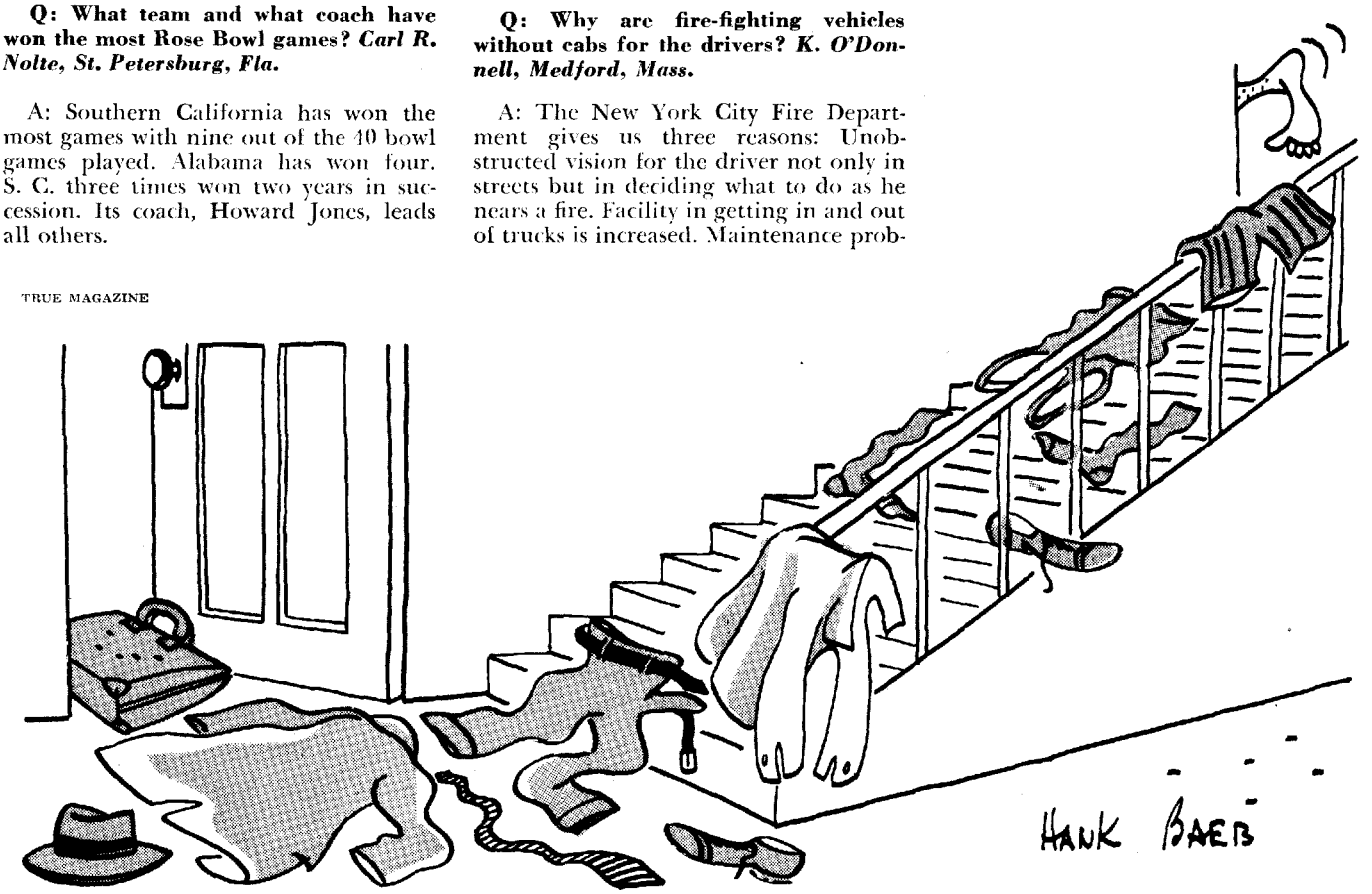
Q: Why do wheels of wagons seem to turn backward on motion-picture screens? *William E. Anderson, Ashville, N. C.*

A: This question, common in the early days of films, is being revived and comes in often. In those days it applied to automobiles, which then had wooden spoked wheels. A motion picture is really a succession of still pictures flashed rapidly on a screen. A minute fraction of a second separates each picture, and if the human eye did not have persistence of vision, meaning that an image is retained by the brain for an instant, we would not have smooth motion but a series of jerks. In the brief instant between the flashing of individual pictures, spokes of a wheel will turn, but the next picture seems to catch them in the same place. This gives the effect of the wheel not revolving when the carriage moves forward. Persistence of vision is also a factor, and with speed of camera and of vehicle can even give the impression that a wheel revolves backward.

Q: Bet has been made that "Buffalo Bill" Cody was born in Italy and came here as a child. So? *Alex Ingino, Kansas City, Mo.*

A: Buffalo Bill was born in Scott County, Iowa, near Davenport, February 26, 1846. He died in Denver, Colorado, January 10, 1917.

TRUE MAGAZINE



"Baby! I'm home!"

Q: Of what are tracer bullets made? ***Devon Reno, Chicago, Ill.***

A: They look like other military bullets and cartridges but the nose only is filled with lead. The remainder of the bullet is filled with a highly inflammable material. This is ignited by the hot gases of the discharge and will burn for some time. Tracers indicate where regular bullets are striking and also serve as incendiaries.

Q: Does a railroad track terminate in the Waldorf-Astoria Hotel in New York City? ***Al Plumley, Hopkins, Minn.***

A: Yes, but it is a short spur. New York Central tracks run beneath Park Avenue on the way to Grand Central. When the hotel was built on the avenue in 1931 provision was made for a spur to run into the basement. At that time private railway cars were common and a steady traffic was expected. Now, with fewer people owning railway cars it is used only occasionally. Among the rare users of the spur were President Franklin D. Roosevelt and, more recently, General MacArthur.

Q: Did the U.S. Government have radar in 1938 or earlier? ***Percy O. Carlson, Troutdale, Ore.***

A: The radar principle was uncovered in 1922 by Dr. A. Hoyt Taylor and Leo C. Young of the U.S. Naval Research Aircraft Laboratory, Washington, D. C. In 1936 the Navy ordered radar for ships, and the first was placed in the U.S.S. *New York* in 1938. Radar picked up the coming of Japanese planes at Pearl Harbor but was ignored as no attack was suspected. The British, alerted by the Taylor-Young work, developed radar independently in the 1930's. They called it radio-location.

Q: Is there a quick method to determine the sex of day-old live chicks? ***Harry Florien, Temple City, Calif.***

A: Several methods are used. The first and easiest, according to D. R. Marble of the New York State agriculture extension service, is to sight sex by down color, a fast and accurate means with sex-linked matings. As few matings are thus made, a similar means, known as the Japanese method because it was developed in Japan and practiced almost entirely by Japanese in the U.S., is most used. It requires keen eyesight and close work but is 95 percent accurate. Use of a sexing machine, by which it is possible to see the ovary or testes, is 98 to 99 percent accurate but slower than the Japanese method.

Q: A Texas friend says the San Jacinto monument is the tallest monument or building in the U.S. Right? ***L. D. Fair, Sutter Creek, Calif.***

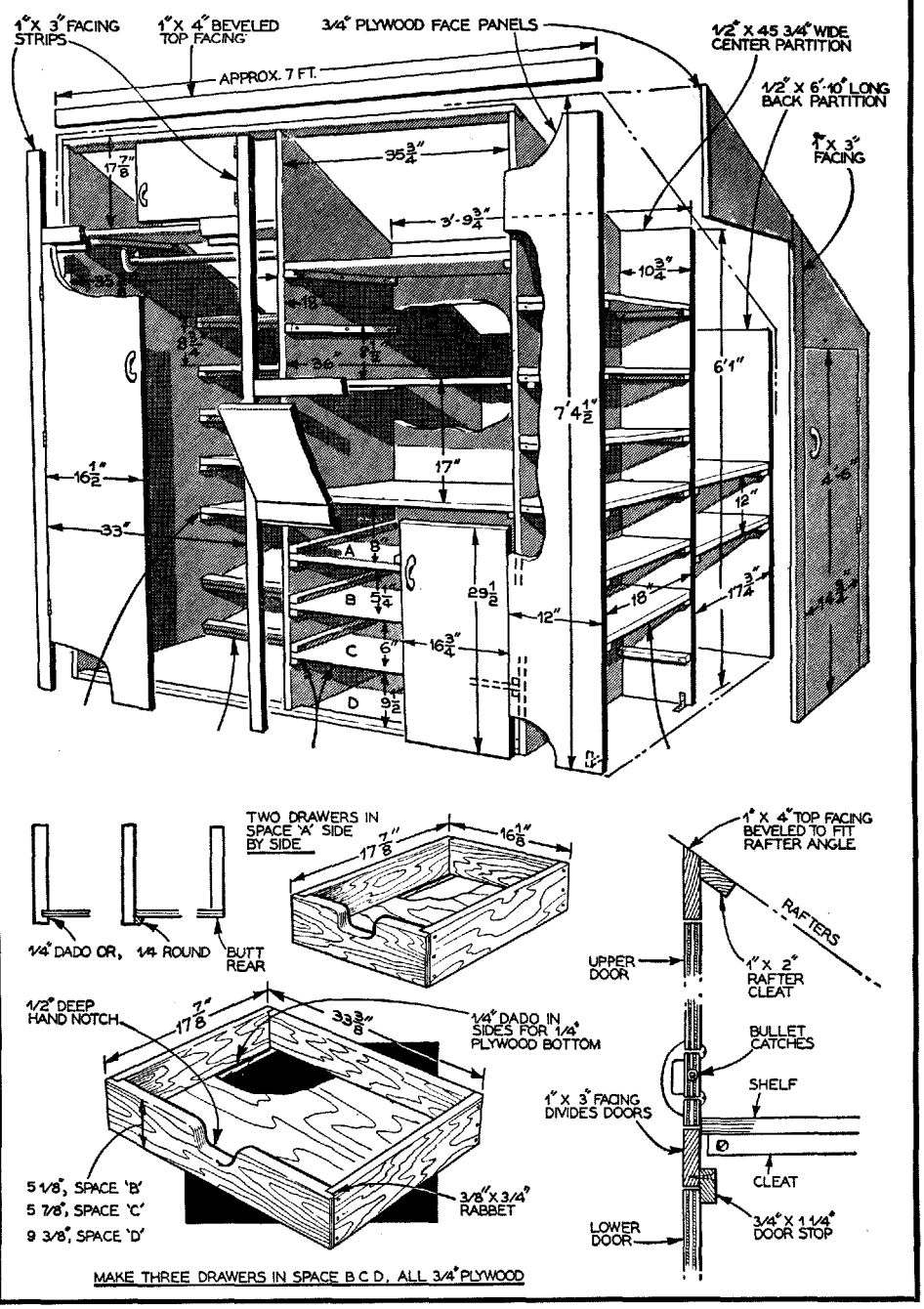
A: Your friend has his Texas boasts mixed. Texans decided to erect a shaft higher than the Washington National Monument, which measures 555 feet, 5⅛ inches. They did. The San Jacinto shaft, built with federal and state funds and finished in 1939, is 570 feet high. But even Texas can beat that with an office building, the Republic Bank in Dallas, reaching to 598 feet. (The Empire State Building's 1,472 feet, needless to say, tops them all.)

Q: How high does gravitation extend above the earth? ***Oscar Woods, Detroit, Mich.***

A: Isaac Newton, in stating his law of gravitation, said that every body in the universe, no matter how large or small, has attraction for every other body, and science still accepts this. Thus gravitation extends beyond stars seen by the greatest telescopes. Its power is so exact it holds the universe together, and has for untold billions of years.

UNDER-EAVE STORAGE

[*Continued from page 49*]



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Though public opinion labeled him an eccentric fool or a charlatan, Field refused to abandon his idea of an Atlantic cable.

[*Continued from page* 52]

Mullock wrote a letter to the editor of the St. John's *Courier,* pointing out that a glance at the map would tell anyone that a telegraph line could be set up from St. John's overland to Cape Ray, from whence it was only 45 miles over water to St. Paul's Island, "with soundings of 100 fathoms, so that the electric cable will be perfectly safe from icebergs."

The bishop went on to say that such a cable would thus make it "not only practicable to bring America two days nearer to Europe by this route, but should telegraphic communication between England and Ireland be realized, (the over-water route) presents not the least difficulty." His Excellency concluded with the hope that the day was not far off when St. John's would be the first "link in the electric chain which will unite the Old World with the New."

As it turned out, the bishop's letter started something. A young engineer, Frederick N. Gisborne, was even then engaged in building a telegraph line for the government in Nova Scotia. Soon after Bishop Mullock's thoughts appeared in the *Courier,* Gisborne showed up before the legislature in St. John's and proposed to build a telegraph line almost identical to that outlined by the church dignitary.

But instead of an underwater cable between Cape Ray and Cape Breton, Gisborne proposed to use steamships and carrier pigeons for this link of the line. The legislature listened with interest and granted him £500 sterling to proceed with the task.

Unfortunately, Gisborne's luck stopped right there. No sooner had he started in on the overland phase of his line, beginning at St. John's, than he ran into disaster. He nearly starved in the desolate wilderness. He came close to freezing in the bitter weather. Of the four Indians in his party, one died of exposure, two deserted and the fourth stumbled back to St. John's nearer death than life.

Inevitably, the young engineer went broke before he'd completed more than 40 miles of his telegraph line. At this point, debt-ridden, discouraged, and labeled "a fool and a dreamer" for having given up a good government job to plunge into such a crazy scheme, he quit Newfoundland in 1854 and headed for New York, hoping to find there the backing to continue his venture.

(Years later, Gisborne insisted that he'd planned to use carrier pigeons over the water link of his line only until it had been proved that an underwater cable could be successful. He said he had even envisioned an eventual cable under the Atlantic. But if people said he was crazy to dream of a cable across 400 miles of wilderness, what would they have said if he'd mentioned his idea of a cable under the Atlantic Ocean? So, he said, he'd kept his mouth shut about a subocean cable—and thus lost forever his chance for a lasting place in history.)

In New York, at the Astor House Gisborne met an engineer named Matthew D. Field. Field listened patiently to the young stranger's tales of his cable across Newfoundland, and told him he knew just the man to whom Gisborne should talk.

"My brother Cyrus might be interested," Field said, but added that he'd better talk to Cyrus himself about it first. Cyrus was passing through a rather difficult period in his life, and perhaps it would be better if the matter were suggested to him discreetly.

Cyrus Field was then only 35, but those 35 years had been extremely full. Born in Stockbridge, Massachusetts, in 1819, Cyrus had left home before he was 16 to make his fortune in New York, a city only then coming into its own as America's commercial capital through the completion, in 1825, of the Erie Canal.

After four years as a clerk in the A. T. Stewart department store, Cyrus had left to join another brother in the paper manufacturing business in Westfield, Massachusetts. There, three months before his 21st birthday, he'd married Mary Stone, of Milford, Connecticut, and again had hit out for New York, this time to open a paper warehouse of his own. The latter promptly failed.

Cyrus made a deal with his creditors which eventually returned them every dime of their money, and started over again. He worked backbreaking hours each day and took a night course in bookkeeping to enable him to keep track of his expenditures.

By 1852, when he was 33, Cyrus had made enough money to turn over his business to his brother-in-law, and retire. He set out to enjoy life, beginning with a six-month tour of South America. His adventure on this trip—coming almost a hundred years before American tourists headed south of the equator—were enough to fill a book in themselves. He made a trip across the Andes on mule back, and a similar junket through the jungles of Panama. He arrived back in New York early in 1853, in time to learn of his brother-in-law's death, and to realize that he'd have to take over the business again himself.

With these facts in mind, Matthew Field wasn't sure this was a good time to try to interest his brother in any new financial ventures. Cyrus was just about out of the woods again, and getting set to retire once more; he'd hardly be inclined to show much interest in a scheme to build a cable across a desolate spot like Newfoundland.

As it turned out, Matthew was right. Cyrus wanted no part of Gisborne or his ridiculous project. In the abrupt manner of a young man who'd made his score in business by his ability to make quick decisions, Cyrus almost laughed at his older brother's words.

"Look, Matt," he said, "Im tired. I'm sure this fellow Gisborne is a nice chap, and that his idea has merit. But I don't want to hear it, or consider investing in it. I've got all the money my family or I will ever need. Now I'd like to sit back and enjoy it for awhile."

Matthew lit a long cheroot. "I know that, Cyrus, and I can't blame you. In fact, I guess I envy you a bit. But all I ask is that you *see* Gisborne, and hear what he has to say. After all, that won't do any harm, will it?"

Cyrus looked at his brother steadily for a moment, then a smile lighted his sharp, blue-gray eyes. A gaunt, thin man, who weighed less than 140 pounds, he nevertheless was lithe and wiry, and his sharp features, topped by a luxuriant growth of brown hair that waved back from his high forehead, gave him a handsome, almost commanding appearance.

"All right, Matt," he said. "Bring him around. I'll see your friend Gisborne, tonight."

That was the begining.

That evening, Cyrus Field listened for more than two hours as the young stranger from Canada spun his tale of his plan to bring the continent of Europe at least two days nearer to New York by building a telegraph line across Newfoundland. Gisborne was intelligent enough merely to hint only casually at what would be obvious to a successful businessman like Field—the commercial advantages of cutting down the then more than 14 days required to get word of a business transaction from New York to London.

After Gisborne and Matthew had left, Field mulled over what the Canadian had said. The man's idea was intriguing; and when the great advantages to commerce, if the plan succeeded, were considered, it—but, no, dammit! Hadn't he had a bellyful of such schemes for making more money? Didn't he owe *something* to his family, to Mary, to himself? Nevertheless, the daring idea tempted him.

Angrily, he strode toward the huge globe that rested on its mahogany nest in the big window overlooking Gramercy Park. He was turning it slowly on its axis, when the door opened. It was his wife, Mary, in nightcap and dressing gown.

"Cyrus," she said softly, "it's very late. Aren't you coming to bed soon?"

"In a moment, darling. I was just thinking." He looked again at the globe at his fingertips. "I was just thinking, Mary," he said casually, "that if it's possible to lay a cable under 40 miles of water up in Canada, *why isn't it just as possible to lay one under the Atlantic Ocean, and really cut down the time it takes to send a message to Europe?"*

Early the next morning, he dashed off two letters. One of these he addressed to an old friend, Lt. Matthew F. Maury, USN, who was then head of the National Observatory in Washington. From Maury, Field wanted to know if it were *possible* to lay a cable on the floor of the Atlantic, or whether the sea itself would defeat such a plan. The other letter was to Samuel F. B. Morse (whom Field had never met) asking if a telegraph message could be sent through a cable laid on the ocean floor.

Both answers were not long in coming.

Maury, professing amazement at Field's request, replied that, oddly enough, he'd written to the Secretary of the Navy a few days before receiving Field's letter suggesting just such a sub-ocean cable. His suggesting, he said, stemmed from soundings taken the previous summer by the Navy, which showed that the North Atlantic, between Newfoundland and Ireland, consisted of a shelf, or plateau, which never attained a depth of more than 2,000 fathoms, and that "this plateau seems to have been placed there especially for the purposes of holding the wires of a submarine telegraph."

Maury warned Field, however, that he didn't "pretend to consider the question as to the possibility of ever finding *a time calm enough, the sea smooth enough, a wire long enough, a ship big enough* to lay a coil of wire 1,600 miles in length." But, he concluded, he was sure that some day American enterprise and ingenuity would find a way.

Morse's answer was just as encouraging. In fact, Morse wrote, he would come to see Field at once about the matter, and he enclosed a copy of a letter he'd writen to the Secretary of the Treasury 11 years before, in which he'd said that a day would come when "a telegraphic communication on the electromagnetic plan may with certainty be established across the Atlantic Ocean."

That was enough for Field. By now, he was completely sold on the cable idea, even though he knew no more about laying one than he did about organizing a trip to the moon. Rushing next door to the home of another brother, David Dudley Field, he poured out his enthusiasm and waited for his brother's reaction. David agreed that Cyrus had something.

"The first thing we have to do is raise the capital," Cyrus said. "It'll take money, Dave, more money than you or I ever can muster. Who do we know who might be interested in going along with us on it?"

"How about Mr. Cooper?" Dave asked. "He's always interested in any plan that will increase business?"

They contacted Peter Cooper, a wealthy New Yorker who lived on the same block. Cooper, who had donated considerable amounts to the advancement of higher education, listened patiently, but was far from excited over the cable idea. It was pretty fantastic and he wasn't at all sure it was something that had even a chance of success. Cyrus argued and gave his reasons for feeling that such a cable some day would be built. Gradually he won Cooper over. They drew up a list of eight other industrialists to be approached, and Cooper was made president of the company organized to explore the possibilities of an Atlantic cable.

Before you could operate a cable under the Atlantic, however, both Cooper and the Fields knew you first had to have telegraph communication established here in North America, from the point where your cable comes ashore to such cities as Boston, New York and Philadelphia. In short, Gisborne's idea for a cable across Newfoundland had to be explored.

Both Cyrus and David set out for Newfoundland. The first thing Cyrus did at St. John's was to sew up the exclusive rights to laying a cable across Newfoundland; and from the legislature he managed to wangle the exclusive privileges, also, of landing a transocean wire on both Newfoundland and Labrador for a period of 50 years. This last the legislature was not reluctant to grant since they were pretty sure Field didn't have a ghost of a chance to pull it off.

But the legislature and Cyrus were pretty confident anybody could stretch a cable across Newfoundland's 400 miles; all you do is take a map and draw a line on it, from this point to that one there, and start to work.

The trouble was that Newfoundland's 400 miles included some of the most rugged, untraveled and barren wilderness on the North American continent. Gisborne had completed 40 miles of the route, but his 40 miles were in the relatively civilized areas around St. John's. When Field, taking it from there—and, by now filled with a mounting enthusiasm for the cable idea—bought out Gisborne's interest and began organizing a crew to hack its way across country, he met difficulties unlike any he'd ever experienced.

For one thing, supplying a party of 600 lumberjacks who were cutting an eight-foot-wide swath through the forest was virtually a job for the Army Supply Corps in itself. Somehow Field and his team managed to do it but there were days when he was close to throwing in the sponge. Living in tents, buffeted all summer by drenching rains and in the winter by snow that piled in drifts eight feet high, the little army ploughed steadily toward Cape Ray, with Field constantly driving his crew like a section hand. He interrupted the process only long enough to hurry back to New York to revive the flagging spirits of his

backers, who'd never seen so many bills pile up for a project that still was in the experimental stage.

By the end of 1854, though, the finish was in sight. Field hurried off to England to buy the cable needed for the underwater portion of the Newfoundland line, the section that was to be stretched under the Gulf of St. Lawrence. England was the only place where the cable was made.

It was the first of more than 30 ocean crossings he was to make on behalf of his transatlantic cable. In those days the crossings took approximately 14 days each, if the weather was right. The cable was completed and shipped in time for its laying in the Gulf of St. Lawrence in the summer of 1855.

Since it *was* summer, and none of the men involved ever had laid an underwater cable before, the New York backers of the project had an idea—why not combine business with pleasure and charter a steamer for a trip to Newfoundland for the cable laying? The party sailed from New York on August 7, 1855, on what they figured would be little more than a pleasure cruise.

On board the chartered steamer, were Cooper, Moses Taylor, another wealthy backer of the project; Morse; members of the press from the leading New York dailies, and a raft of distinguished guests "including a number of ladies who brought life and animation to the voyage." As part of the entertainment while at sea, Professor Morse regaled the travelers with an on-deck demonstration of his telegraph. It was quite a gay junket, indeed.

At the start, that is. After the party transferred to the bark carrying the cable from England, not far from Cape Ray, problems arose. It had been assumed that, to lay a cable underwater, all you had to do was unreel it over the stern of the ship, while the bands played and the guests chatted gaily on deck. But the Gulf of St. Lawrence wasn't the millpond folks had figured it to be. One minute the cable would be paying out nicely, the next the ship would be rising on a swell and the cable would tighten and threaten to pull the whole stern underwater with it. Then, halfway across the gulf, a storm whipped up which soon became a small gale.

Most of the party, including the ladies, promptly went below and became beautifully seasick. Field, however, remaining on deck, was faced with a much more serious problem—the little bark, weighed down with its weight of heavy wire, soon began to pitch and roll so violently that it seemed at any moment to be on the verge of sinking.

"You've got to cut that cable!" the ship's captain finally roared at Field through the gale. "If you don't, I can't be responsible for the safety of this ship."

"No!" Field yelled back. If they did that, he knew it would be the end of their project for that summer, since it would take months to get a new supply of cable from England; and at the moment, he had no idea how you went about recovering cable already laid.

"But, good God, man," the captain bellowed. "You'll sink us all if you don't!"

Adamantly, Field refused to give in.

By now the storm had become almost a fury. The little bark rose on her bow and seemed ready to plunge to the bottom, while the wire reeled out crazily over the stern and threatened to behead anyone who came within 10 feet of its snapping thrusts. A moment later the ship virtually was tugged stern-first under water by the pull of the suddenly tightened wire.

During one of these latter crises the captain took matters into his own hands. Grabbing an ax and pushing quickly past Field, he rushed to the fantail and chopped the cable in half.

It saved the ship, but it also was the end of Field's cable-laying for that year.

Wearily, the party limped back to Cape Ray, half of Field's valuable cable lost at the bottom of the Gulf, and more than a million dollars of his backer's and his own money gone to the bottom with it.

Immediately, the hue and cry of the scoffers was heard. The cable was a wild, foolish scheme, as anyone with a brain could see. If you couldn't lay a cable across 40 miles of inland water, how could you lay one under 1,600 miles of tempestuous North Atlantic? It was a swindle, that's what it was; a vast and vicious hoax!

That was almost the end of the Atlantic cable.

Desperate, Field rushed back to New York and faced his backers. They'd had a momentary setback, sure, but it certainly couldn't be called a failure. As a matter of fact, they'd learned several things from the Newfoundland fiasco. They knew now that you couldn't just unreel the cable over the side of the ship; you needed special equipment designed for that particular job. A sailing vessel was no good; you needed a steamship which could control its speed mechanically, and make adjustments to tighten or slacken the wire as the occasion demanded.

Most important of all, Field insisted, they'd proved an even greater fact—that, regardless of what people said, it *was* possible to send and receive telegraphic signals through an underwater wire.

Gradually, the criticism died down, the backers fell grumblingly back into line, and Field was off to England again to order more cable for the St. Lawrence phase of the line. And this time, in the summer of 1856, he knew enough to allow no pleasure-cruise junkets. With an improved method of spinning out cable mounted on the fantail of a small steamer, the wire was submerged across the gulf almost in complete privacy, with only the workmen on hand to cheer its progress.

It was a success, and, for the first time, Newfoundland was connected with New York by more than a thousand miles of telegraph line. The first phase of Field's dream, the part envisioned by Gisborne, had become a reality. Now all that remained was to complete the circuit, from Newfoundland to the west coast of Ireland, the shortest distance between the two continents.

Again Field set out for England. Although he'd proved that an electric signal could pass through some 40 miles of underwater cable, he still

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"Not cold cuts *again!*"

hadn't convinced anyone that the same signal could be sent through 2,000 miles of wire. The skeptics were many and loud. One of the latter, the great British electrical genius, Michael Faraday, the discoverer of magneto electricity, insisted it just wasn't possible, that the electrical current gradually would grow weaker the farther it traveled through the wire.

In England, Field set out to prove Faraday wrong. Badgering an English telegraph company into letting him borrow the use of 5,000 miles of their underground wire, he tested it late one night in October 1856, in company with two sympathetic British engineers, Charles T. Bright and O. W. Whitehouse.

Arriving at the telegraph office after midnight—the company used the cable only during the daytime—Field and his friends quickly connected the terminals of various circuits to make one continuous 5,000-mile hookup. Then, clustered in the dim light of oil lamps, and looking for all the world like a trio of conspirators bent on tapping a telephone line, they shot a signal through the wire.

It worked!

On the first try, 210 signals a minute flashed through the long cable, with no loss of strength. The next time, the speed was increased to 241 signals a minute, and on the third go-around they traveled at 270 signals a minute.

Field, naturally, was elated. There now remained but one thing to check. Was the bottom of the ocean composed of such material that a cable could lie there for years and not be chewed to pieces by the currents, cut by jagged rocks, or snagged by ship anchors or other hindrances. Again he turned to his friend, Lieutenant Maury, of the U.S. Navy.

This time, Maury was even more encouraging than he'd been before. He sent Field the results of some new soundings taken by the Navy the previous summer at intervals of 30 miles all the way across the North Atlantic. With these soundings, Maury was able to show that the ocean bottom actually was made up of a type of soft ooze, into which the cable could be dropped without fear of injury. More importantly, in this ooze were millions of tiny shells which seemed to have lain there for years without injury.

If, Field reasoned, the currents weren't strong enough to grind tiny shells into powder, they certainly wouldn't damage a sturdy, well-insulated cable. He now was ready to begin the biggest, most important phase of his operation, the actual laying of the cable.

But again he had to revert to his role of businessman and secure solid financing from the governments involved with the cable. His first step was to organize an English company—the New York, Newfoundland & London Telegraph Company. He then set out on a tour of the major English cities to drum up interest in the venture.

It was on this tour that Field demonstrated he was as good a public speaker and crowd-swayer as he'd been a paper manufacturer. Wherever he went, hostile critics fired questions at him designed to reveal the foolishness of his idea.

"Won't the sharks eat the bloomin' thing, guv'nor?" a heckler called. Field timed his answer to get the most favorable reaction from the crowd: "A good question, my friend, but we've thought of that, too, and have experimented with a school of hungry sharks—they don't eat cable. Next question?"

Other criticisms weren't so lighthearted. Sir G. B. Airy, a distinguished British scientist, announced that (1) "it was a mathematical impossibility to submerge a cable in safety at so great a depth in the ocean," and that (2) "if it were possible, no signals could be transmitted at so great a length."

Field replied with the results obtained from their previous experiments, and moved steadily along. From city to city, he made his feverish rounds. In a matter of weeks, he had raised a capital of £350,000 which were sold in shares of £1,000 each, 106 being sold in London, 86 in Liverpool, 37 in Glasgow, and the rest distributed in the other English cities. Among the investors, curiously enough, were William Makepeace Thackeray, the novelist, and Lady Byron, wife of the poet.

Of the total shares, Field decided to retain 68 of them for sale in the United States, since he wanted his own countrymen to own at least a quarter of the stock in such a great undertaking. In this, Field made a big mistake. Back home, he found that many Americans were interested in his cable, and wished him success with it—but that was as far as they went. Outside of his original committee of 10, including Cooper, Moses Taylor, and the rest, not a single American put a dime in the cable. Eventually, Field was left with the 68 shares and paid for them out of his own pocket at a cost of $340,000.

Still far from discouraged, Field took his family to England, this time for the purpose of seeing what he could do about lining up the cooperation of the British government on the cable project. Again, he was in luck. To John W. Brett, who'd finally succeeded in completing his own cable under the English Channel, Field restated his idea for a cable under the Atlantic. Brett enthusiastically offered his services in any way Field could use them.

Again the publicity drums were beaten all over England, and again the skeptics rushed to the fore. The first disastrous attempt to stretch a cable across the Gulf of St. Lawrence was brought up, with loud jeers from many sides.

Admittedly there were still mechanical questions left unanswered: Where was the ship big enough to carry almost 2,000 miles of wire weighing a ton a mile? Why, any ship on which it was stowed would sink at the dock! Also, what about insulating the wire? Without proper insulation, telegraphy was impossible, and what insulation would withstand the salt water at the bottom of the sea?

The latter question was answered almost as soon as it was asked. A new product called gutta-percha, from the jungles of Malaya, was the ideal insulating material. It was impervious to salt water and a bad conductor of electricity. Field chose it as the covering for his cable.

Meanwhile, Faraday, convinced by the tests Field had made on the 5,000 miles of wire earlier, agreed that he thought it possible to send a signal under the ocean, if the cable ever should be laid. Pleased, Field asked the great scientist how long he thought it would take such a signal to travel, say, from New York to London.

"Possibly a second," Faraday said.

Field was now ready for the big problem—getting the necessary ships. He wrote to Lord Clarendon, head of the Foreign Office, and outlined his cable plan. He stressed the honor that would come to England if the plan should be successful. Clarendon invited Field and Morse to call on him at the Foreign Office to discuss the matter further.

"You mention the honor that would come to England if you are successful," Clarendon said, when they were seated in his office. "However, what happens if you are *not* successful? If your cable is lost at the bottom of the sea? Then what will you do?"

"Charge it to profit and loss," Field said cheerfully, "and go to work laying another one."

Clarendon chuckled. "You Americans!" he said. "Oh, well, suppose you put it all down in writing for me, and I'll see what I can do."

While waiting for Clarendon's decision, Field took his family off for a visit to Paris. There, his sister, to whom he was devoted, and who had come abroad with them, died suddenly, and Field was plunged into gloom. Suddenly, he had no more interest in laying the cable, and he might have abandoned the whole idea then and there, had not a letter arrived from Lord Clarendon's office.

The British government had agreed to supply the necessary ships! What's more, England would grant an annual subsidy of £14,000 to the cable company, which was to be reduced to £10,000 in any year in which the company's profits equaled or topped 6 percent. The subsidy would run for 25 years, but would be paid only during the time the cable actually was in operation.

The British made one other provisio – that their government would have priority on any messages sent over the cable, except that, should the United States Government go along on the plan, it too should share equally in the rights and privileges of the cable.

Excited, Field dashed home to sew up American cooperation, a trick he felt would be a cinch now. Again, though, he misjudged his countrymen. Hardly had the bill authorizing the cable been introduced in Congress, granting Field the same subsidy as he'd gotten in England, than all hell broke loose.

A Representative Jones, of Tennessee, took the floor and shouted that he'd be damned if he'd "have anything to do with England or Englishmen." Hunter, of Virginia, sneered that the whole scheme obviously was "simply a mail service under the surveillance of Great Britain." Other congressmen, noting that both ends of the cable would be landed on British soil, demanded to know where that would leave us in the event of a war with England? The debate, couched in the colorful language of congressmen, roared and reverberated.

While all this was going on, Field was in the midst of his own troubles. Having arrived from England on Christmas morning, 1856, he had agreed with his wife that the holidays at least should be spent at home, with no mention being made of the cable or its problems. But, unfortunately, he was met at the pier by a representative of the cable company, who brought word of labor trouble in Newfoundland. Field set out for Halifax the next morning.

Worn out and run down, Field arrived in St. John's only to collapse and be put to bed under a doctor's care. And there he would have stayed, possibly for weeks, had not word arrived of the bitter debate then going on in Congress over his cable plans. Field ironed out the labor trouble and took the next storm-lashed ship for home.

That this was a smart move and that his presence was needed can be seen from the results. A bill which granted Field American cooperation on the same terms the British had granted was passed in both the House and the Senate by the margin of *exactly one vote.*

On March 3, 1857, the last obstacle in his path had been removed.

England had agreed to supply their largest battleship, the *Agamemnon,* to carry half the cable. The U.S., in turn, offered its largest frigate, the *Niagara*—which was 2,000 tons heavier than the *Agamemnon,* and one of the largest warships afloat—to carry the other half. Both navies also agreed to supply auxiliary ships to make up the cable-laying fleet, eventually to be called by the press, "the Wire Squadron."

Field now was ready to order his cable. He wanted to give the order to the same company which had manufactured the St. Lawrence cable, but the directors of his company voted to split the order among three different cable-manufacturing concerns. The result was a real foul-up.

After testing 62 different kinds and sizes of cable, it was decided that the cable would consist of seven copper strands, each strand one-sixteenth of an inch in diameter, and with six of the strands twisted lengthwise around the seventh, or center strand. This was to be covered with three thicknesses of gutta-percha, each thickness laid on separately and tested to withstand a hydraulic pressure of five tons to the square inch. When completed, the cable was able to be stretched 20 percent of its original length before breaking.

At first it was decided that the fleet would rendezvous in mid-ocean and begin the operation there, the cable being spliced together and the *Niagara* then pointing toward Newfoundland with her end of the cable, and the *Agamemnon* toward Valencia, Ireland, the westernmost point on the Irish coast, with hers. At the last moment, however, the electricians insisted it would be better all around if one end of the cable were fastened on land before they began, to maintain contact with home during the complete operation. After bitter debate, the directors voted for the latter course, and the fleet finally sailed into Valencia on August 5, 1857.

The sailors from the *Niagara,* accompanied by Field, dragged their end of the cable ashore, since it had been decided that the Americans would land the wire on British soil, and a crew from the *Agamemnon* would have the honor of landing it on the opposite side of the Atlantic.

The cable-laying had begun.

With hundreds of small boats and craft of every kind swarming around them, the great adventure started in an atmosphere of pageantry the like of which had never been seen in the little seaport town. As it turned out, most of the celebrants still were on hand an hour or so later when the whole fleet came limping back to port.

The cable had broken four miles from shore.

It seems the machinery handling the paying out of the cable had developed a flaw, and the wire was snapped before anyone could do anything to prevent it. So the boys started again, with a tug—appropriately named the *Willing Hand*—beginning at once to try to recover the four miles of wire already in the water.

This time the fleet didn't even cover four miles. Instead, the wind came up, the water became too choppy for safe operation, and it was decided to put things off until the following day. It was, for the merrymakers, something of a let-down.

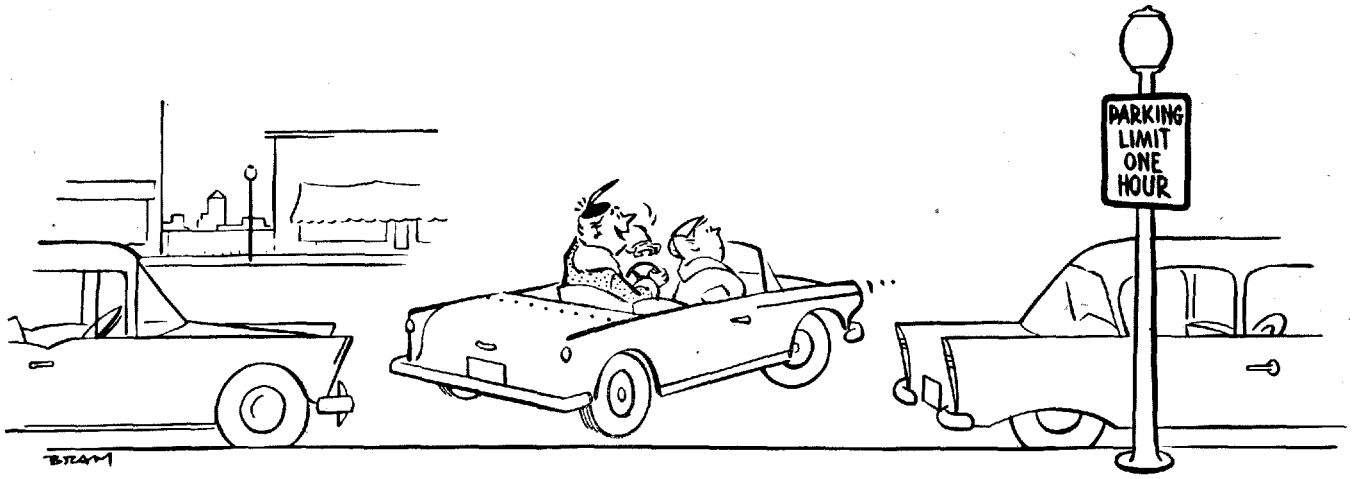
Both the *Niagara* and the *Agamemnon,* were each weighted down with more than 1,000 miles of cable. It had been decided that a total length of 1,834 miles of wire would be needed, with 2,500 miles provided to take care of emergencies and to provide for the ups and downs of the ocean floor. So much space in both ships had been taken up by the cable, in fact, that all their armament had been removed, and their coal hauled out of bunkers and stowed on deck. Even the officers' wardroom on the *Niagara* had been knocked out to allow extra room for the miles and miles of heavy wire.

As for the paying-out apparatus, it consisted of a series of sheaves, or huge revolving drums, mounted on each ship's afterdeck, the cable being fed onto these drums from the coils of wire, and then spining out over the fantail into the sea. At the stern of each ship, a large wooden cage had been erected to prevent the cable from spiraling down and becoming entangled in the screw; a hand brake, designed to speed up or slacken the paying-out process, had been devised. The latter, it was realized beforehand, would have to be manned constantly by a highly trained operator.

Unfortunately, it was this hand brake which was to wreck Field's first attempt at cable-laying.

On Saturday morning, August 8th, the ships sailed once more toward the west, and by sundown on Sunday had successfully laid 95 miles of wire. By noon the next day, everything was progressing so smoothly the crew was exultantly tapping out over the cable messages to their families, which were to be sent from Valencia to Liverpool and onto the first ship for America. By nightfall, 330 nautical miles stood between the squadron and Valencia. The signals were going back and forth at regular and strong intervals.

Then disaster struck. Field's friend, engineer Charles T. Bright, had been on duty almost constantly at the hand brake, adjusting and checking the cable's speed to conform to the rise and fall of the ship and the speed of the engines. But, at a point roughly 380 miles from Valencia, Bright had turned over the hand brake momentarily to a competent crewman, and had gone forward to check with the bridge on the ship's forward speed. He'd gone barely half the length of the ship when he felt a jolt, as if the ship had risen on a swell and had tightened



"Why, I'll be able to do it in *that* time."

the cable hanging over the stern. Immediately, Bright raced back to the hand brake, as Field and the others came piling out of cabins and companionways.

"Release it!" Bright yelled to the crewman. "The wire's too tight! Let it out!"

The others also barked at the workman; the poor guy suddenly was up to his ears in assorted directions thrown from all sides. In his confusion, he tightened rather than released the brake—and the cable snapped.

There was nothing to do but return to Valencia. There, Field quickly transferred to another ship for London, where he hurried to check with the directors. To the latter, he put his plan for acquiring more cable and starting in all over again.

"I know *now* that we can do it!" he stated. "I've seen with my own eyes that we're on the right track. We'll have the cable laid before the summer's out."

The directors demurred. It was now too late in the year for another start anyhow, since the weather on the North Atlantic inevitably would grow worse instead of better from now on. Besides, new cable was needed to replace the almost 400 miles that had been lost. (Cable recovery had been tried. Fifty miles of cable were recovered by the tug, *Willing Hand*, but it was a more difficult and expensive operation than laying it. It could be sunk by its own weight, but pulling it up involved machinery even more elaborate than the laying machinery.)

At a cost of $500 a mile, it required some strenuous soul-searching on the directors' part to agree to another cable-laying attempt the following summer. But Field refused to admit defeat.

He now plunged into the details for his next attempt, scheduled for the summer of 1858. Purely as the result of his own powers of persuasion, both England and the United States agreed to supply the same two ships, the *Agamemnon* and the *Niagara*, for the second try, even though the grumbling at home, particularly in Congress, had reached new heights.

It was decided to make the second attempt earlier in the season the next time. Virtually every seafaring man on both sides of the Atlantic agreed that the months of May, June and July were apt to be the calmest on the North Atlantic. Any time after July 20, you faced the possibility of meeting extremely rough weather.

Accordingly, the fleet rendezvoused at Plymouth, England, early the following June, ready for a new start. A new hand brake, designed to prevent the previous kind of fiasco, now was in place on both cable-laying ships, a brake which automatically maintained a uniform grip on the cable and which was said to be impossible to foul as had its predecessor. (The new brake was patterned after a device used in England prisons to secure recalcitrant inmates.)

It was decided this time to go back to Field's original plan of starting from the middle of the ocean. After splicing the cable, the two ships would then go off in opposite directions toward their respective shorelines. They would, they decided, leave Plymouth together and proceed in company toward the rendezvous spot in mid-Atlantic, at latitude 53°2′, longitude 33°18′.

This time, there were no bonfires, no fireworks, no speeches, no cheering townspeople. Instead, the squadron sailed from Plymouth on Thursday, June 10, in what amounted to secrecy. A few old seadogs, lounging on the docks, shook their heads. They'd never make it, these ancient mariners muttered, for both ships were far too overloaded. They'd be lucky if the whole lot of them ever were heard from again.

On sailing day, the sea around Plymouth was so calm that the engineer on the *Agamemnon* began praying for a breeze, so he could bank his fires and hoist sail. He had a horror of getting the cable almost completely laid, and having to give up because of lack of coal. Apparently, however, he prayed a touch too hard.

For that night a breeze sprang up, as the crew cheered. The following morning it was blowing harder, and the fires were raked and the canvas run up; and the ships began to bowl along at a merry clip. When rain squalls were added to the snapping breeze late that afternoon, the crew suddenly knew,

in the words of one of them, that they were "in for it."

By Saturday, June 12, the breeze had become a spanking wind which literally swept them through the sea. The barometer began to fall rapidly. On Sunday, the 13th, the wind blew even harder, and they now were carried along through a "wretched mist that was half rain, half vapor," and which gave the squadron an air of eeriness.

By Monday, June 14, an air of desperation settled over the whole squadron. The ships began to lose sight of one another as they were driven off course, fighting to stay afloat. Even though the canvas now was so close-reefed as to show little more than the bare rigging, still the ships raced along as if they were jet-propelled. But it was to be on the *Agamemnon,* "the noble ship" which bore herself so well, that the storm loosed its most vicious blasts.

The beams of the British vessel, under the heavy weight of the cable coiled on its main deck, now began to "snap with a noise resembling that of small artillery, almost drowning out the hideous roar of the wind as it moaned and howled through the rigging, and jerking and straining the little storm-sails as if it would tear them from the spars."

That night, the upper-deck planking on the *Agamemnon* worked free under the strain, and giant combers, crashing over the heaving ship, poured through the opened seams and drenched everyone and everything below. In every cabin dirty bilge sloshed more than a foot deep and luggage, foot lockers, seabags and everything else loose were tossed around like chips.

It was impossible to give any orders to the watch and make them heard or understood. Veteran seamen, many of whom had been in one of the worst hurricanes in history the previous November, while on Crimean War duty in the Black Sea, now insisted that this was far worse than that.

On Sunday morning, June 20, there no longer was doubt in anyone's mind, including the captain's, that the end was not far off. The sky was as black as night, the waves monstrously high, the rain beating with unabated fury. By now, most of those who were not fighting to keep the ship afloat merely jammed themselves into corners and held on for their very lives.

It was then that the terrible, frightening climax to the horror of the storm was reached—off the port bow suddenly appeared four awesome, mountainous waves, moving inexorably toward the frail vessel. Even the most cynical and hardened sailor moved his lips in prayer.

The first mountain slammed into the port beam with shuddering impact, and the *Agamemnon* literally was hurled to the top of the gigantic crest, only to plunge sickeningly down the other side into the trough, with a drop that seemed destined to carry the little craft straight into hell.

The second fantastic comber followed hard on the first. One sailor, a marine, now was heard above the clamor of the sea as he shrieked in terror. Then, a maniacal scream on his lips, he began to tear at his clothes and fell, gibbering, to the deck. His fear had driven the last fragment of sanity from him.

Somehow his mates managed to subdue him and carry him below decks.

Nothing stayed secure, either above or below. On the main deck, sailors, marines, messboys, deck buckets, ropes, ladders —and arms, legs, bodies—rolled together in a ball from port to starboard. The ship's coal was piled in bags on the afterdeck, to make room below for the coils of heavy cable and to counterbalance the weight of the largest coil of wire which was shored up on the main deck forward. Now the coal broke loose and began to plunge wildly in all directions.

Worst of all, the big coil of cable stored in the ship's main hold now came loose and began to strain at its moorings. If it worked entirely free, its huge bulk simply would slide across the deck and through the side of the ship, leaving a gaping hole that would surely swamp the vessel instantly. By a feat of superhuman strength, the black gang managed, at the height of the fury, to strengthen the shoring around the coil.

This incident accentuated the natural superstitions of these seafaring men and convinced them that the cable was not only the cause of their present predicament, but quite possibly the instrument that would take them to their doom, "a millstone around the necks of all on board."

The third wave bore down on them. The last remaining ladder was crushed into kindling. Two marines, fighting to hold their footing on the main deck, were sent plunging headfirst against the machine designed for paying out cable. Another marine, a sentry on duty outside the wardroom door, was crushed under tons of coal. Somehow, rescue parties managed to free him before his life was snuffed from his body.

With approximately 45-degree lurches in two directions, at least five times in a row, it was remarkable that the ship still remained afloat in the chaos that now existed. The ship's engineer was buried under tons of coal. In the galley, the cooks, who had stuck to their job of trying to get some soup warmed to feed the injured, were scalded when the hot liquid poured out all over them, even though the pots purposely had been kept less than half-filled. A seaman was chased for five minutes by three huge casks of oil which had broken from their moorings and rattled around crazily in all directions. And at least 50 miles of precious cable was hopelessly snarled and tangled.

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The fourth huge wave was almost anticlimactic. It spent its fury on the frame guard which had been erected over the stern to protect the ship's screw from the cable when being payed out. It smashed half of this guard to splinters. The captain knew that if the other half went, it would most certainly sink the vessel. Desperately, the trained, disciplined crewman fought to save it.

Throughout that day and the next, the terrible battle to stay above the surface continued, as the storm never once slackened in its fury. Half the crew was in sick bay or nursing their wounds as best they could.

On Monday the officers of the *Agamemnon* spotted the *Niagara,* now astonishingly back with them. The American ship, less than a mile away, was having her own troubles in the storm. Yet the latter ship, with Field aboard, was not nearly so concerned for herself as she was for the *Agamemnon,* which the Americans were convinced couldn't possibly remain afloat much longer.

Their fears were justified. Captain Preedy, of the *Agamemnon,* when he could make himself heard, told his officers that another three or four hours of such incessant buffeting would send them to the bottom. They prepared themselves for the end. It was at that moment that several barrels of copper sulphate, lashed to the afterdeck, were stove in by a flying plank. The greenish sulphate coated everyone with an added layer of pea-green paste that increased the ghostly atmosphere of the surroundings.

As the ship took in water fast, the skipper took one last desperate look at his situation and concluded there were but three courses open to him—he could, with steam up, bear around and change course to the starboard tack, instead of bowling along at the mercy of the wind, reefed tight; he could break out sail and run with the wind; or he could lighten the ship by jettisoning the heavy cable stowed on the main deck.

If they chose the first of these and changed course, there was danger of plunging into a trough of the sea, ripping out the masts, loosening the heavy cable again—and sinking in a matter of minutes. If they ran before the wind, the stern might be stove in by the onrushing force of the sea, and again they

would be overwhelmed. As for jettisoning the cable, to try to do it in that sea conceivably could hasten their final disaster.

Desperately, the skipper chose to run before the wind. Somehow, no one ever was to know by what miracle, foresails and foretopsails were bent on, and the battered ship immediately began to leap through the water like a vessel possessed.

Whether it was this latter maneuver or an answer given at last to the men's desperate prayers, an hour later brought the first welcome signs of moderation in the storm's fury. The barometer began to rise, the wind abated and the slashing rain stopped. By nightfall, the moans and cries of the injured died down as they at last were able to receive treatment at the hands of the ship's doctor and the crewmen still on their feet struggled to restore order from the shambles.

Next morning, when readings could be taken, they found they were 220 miles farther from the rendezvous point than they'd been two days before. They reached the rendezvous point on Friday, June 25, 16 days after their departure from Plymouth —16 days which since then have rarely been topped in the annals of the sea.

The *Niagara*, which arrived 15 days behind schedule, had come through the storm surprisingly well, although Professor Morse was reported to have been deathly seasick. Of the ship itself, the jib-boom had been carried away, and the buoys for suspending the cable had gone over the side. Otherwise, the American ship was in fair shape and eager to begin laying cable.

On the *Agamemnon*, however, the picture was vastly different. The crazed marine still raved in his bindings, a hopeless lunatic. The broken arms, the crushed bodies and the bruises sustained by more than two-thirds of the crew had reduced the working force to little more than skeleton size. As for the vessel herself, her beams were loose, all her ladders, as well as most other objects on board, were in splinters. At least a few days' delay was needed to get the ship back in shape if she were not to sink in the next bit of bad weather that came up.

Nevertheless, it was decided to begin laying the cable on the following morning, Saturday, June 26.

Next day a splice was made in the cable between the two ships—a sixpence was inserted in the splice for luck. At 2:50 p.m., Greenwich time, the cable was dropped into the sea, as the clouds gathered once more and the sun was obscured, "giving the operation what only could be described as a funereal effect."

Yet, even now, the fates conspired to thwart Cyrus Field. Before the ships were three miles apart, the cable jumped a pulley on the *Niagara*, and parted before a move could be made to prevent it.

Again the ships joined company, and a new splice was made. This time the ships covered 40 miles apiece before a break occurred, apparently on the bottom of the sea somewhere between the two vessels. Another return, another splice, another beginning.

With this splice, Field called his associates together for a conference aboard the *Niagara*. "We'll keep on trying," he said doggedly, "so long as we have wire left to make a splice. However, so that we'll be agreed, let's put it that we'll return to the rendezvous point after every break, so long as neither ship has covered more than 100 miles."

A young engineer from the *Agamemnon*, his arm in a sling, asked thoughtfully, "Suppose we're beyond the 100-mile mark, and she breaks. What then?"

Field eyed him steadily. "In that case, we'll have no choice—we'll have lost so much wire we'll be forced to put back to Queenstown independently."

The third splice completed, another parting of the ships occurred in what only could be described as an atmosphere of pessimism. There couldn't *possibly* be many more breaks. Coal was at a premium on both cable ships, and the provisions were running extremely low. Already, on board the *Niagara*, the staple at every meal was salted beef and nothing else.

What was worse, the record of the last break—showing that it had occurred on the ocean floor and at a distance of at least some 10 miles from each ship—revived a suspicion that the sea bottom might not be soft ooze, as had been reported. Quite possibly there were jagged cliffs and other protuberances down there which could bar forever the successful laying of a cable.

Field stood in the stern sheets and watched the *Agamemnon* plod away toward the east, the strand of wire that connected her with the *Niagara* now more than ever for him a thin life line.

As the hours went by, Field's brother Henry, along as an observer, jotted down the picture in his diary:

"No one tried to sleep that night," Henry wrote. "Instead, all watched the great experiment with a feeling in every heart and soul aboard as if some dear friend were at the turning point of death, and they were watching beside him. Over the entire ship hung a strange, unnatural silence. Men paced the deck with soft, muffled treads, speaking only in whispers, as if a loud, heavy football might snap the vital cord. It was as though the cable were some human creature, on whose fate hung the fate of all on board, and as if it were something which could decide their destinies as well as its own."

When sleep did come to the weary crew, Henry wrote, it was of the fitful variety. Awake or asleep all listened for the soft thlump-thlump of the paying-out machinery, the "old coffee mill" telling them that all was still well.

So it went into that fateful night of Tuesday, June 29, the tension now so great that nerve edges were raw and tempers razor-thin. There was no breeze, not a ripple of wind to arouse even an echo in the shrouds overhead, as the men stood in quiet little groups and whispered softly among themselves. When the sailor splicing a length of line amidships dropped his marlin spike, it was as if a gun had gone off.

Then, as Cyrus Field sat huddled before the little signal box, and watched the light that flashed rhythmically on its dials, the first startled gasp sprang from his lips.

Had the signal missed a beat that time?

It skipped again, twice this time, and then at last it stopped completely.

The cable had broken again.

There was nothing to do but return to Queenstown. The log showed they'd covered 114 miles from the rendezvous point; there was no hope that the *Agamemnon* in her battered condition could possibly put about for one more try. For the injury-ridden Britishers, it would virtually be suicide.

What irony it was for Field, to learn later that the plucky British ship *had* put about and returned to the rendezvous, in a pea-soup fog so thick it had been necessary to stage a man in the bow with a megaphone to warn approaching ships against a collision. And all in vain.

In London Field had the inevitable showdown with his backers. This time there was no mistaking the outright hostility in the air. In the press, there was nothing but derision for Field and his whole ridiculous idea. On the stock exchange, the quotations on New York, Newfoundland & London Telegraph shares sagged to a new low, and it was the opinion that anyone who'd advance another shilling for a third try at cable-laying was little more than an idiot.

"Most of the directors," he told his wife later, "looked from one to another with blank and coldly detached faces." It was obvious that, toward Field, they exhibited little more than pity.

"It's plain," one of them said, acidly, "that we're attempting the impossible here, and to advance more money to that which already lies rotting in the sea would be the height of foolishness."

"That's not so!" Field argued hotly. "We've lost but a little more than 300 miles of the more than 2,500 miles of cable we own. Besides, it's still early in the year. If we make another start immediately, we have every possible chance for success."

The board chairman, Sir William Brown, scoffed. "As much chance as we had on your other attempts? No! I agree with the others. I say, let's sell the wire we have left and realize at least that much of a return on our investment. If we don't, it seems to me, we're just throwing good money after bad."

The tide of criticism became a chorus, and the sentiment to quit had mounted until it virtually was unanimous.

"Gentlemen, gentlemen!" Field interrupted. "Please! Hear me, if you will. I'll admit things look bad at present. But you haven't been to sea on this project, and I have. And I've seen the way those of your countrymen and mine risked their very lives in one of the worst storms in the history of the Atlantic, all to do their part to make this venture a success.

"Are we here, whose investment has been nothing more than our finances, now going to confess that we won't match the sacrifices of these gallant and brave men? They're willing right now to try again. I say, if we now publicly admit that our courage is less than theirs, then we shall forever after be forced to hang our heads in shame!"

With his pleas and the sheer dynamic magnetism of his personality, Field won them over. Not all of them, to be sure. Sir William Brown, seeing the tide of opinion swinging once again toward Field, resigned his chairmanship and strode from the room. He was followed by one other board member.

Within an hour, another chairman—Stuart Wortley—had been elected, a vote was taken, and it was agreed to make one final attempt immediately to lay the cable. The following Saturday, July 17, was selected as the departure date, for the same ships as before, from the harbor of Queenstown.

This time, the sailing went virtually unnoticed by anyone except the relatives of the men aboard. "The ships slunk away, in fact," the *Times* reported, "as if they were on some discreditable mission."

On July 28, they again reached the rendezvous point in mid-Atlantic, after an uneventful voyage. The splice was made on the 29th, and the ships sailed in opposite directions.

Nothing occurred this time to mar the smoothness of the trip. Only once was there a quickening of heartbeats aboard the *Agamemnon*. On August 2, an American three-masted schooner appeared on the horizon, seemingly on a course which would send her across the cable and in danger of cutting it. A warning gun was fired hastily aboard an escorting vessel, and the ensign was dipped, but the schooner passed by without apparent notice of the cable ship, missing the wire by a matter of feet. But it was a tense moment. The firing of the gun roused everyone in the fleet, and they were sure its booming meant the wire had broken again.

But luck and calm seas prevailed, and the end of the voyage for the *Niagara* came at 1 o'clock in the afternoon of August 5. She sailed into Trinity Bay, Newfoundland, dropped her hook and seemed almost to sigh in animate relief. The cable was carried ashore to the signal house, the flashes still coming with steady rhythm from the *Agamemnon*, 2,000 miles away. The British ship was even then casting her anchor in Doulas Bay, Valencia.

The Atlantic Cable was a reality.

Immediately, Field flashed a memorable message to Mayor Daniel F. Tiemann, of New York: "The Atlantic telegraph cable has been successfully laid—C. W. Field." Next, to the Associated Press, in New York, Field dispatched a longer message telling of their success, and winding up with the assertion that "by the blessing of Divine Providence, we have succeeded."

John Mullaly, of the New York *Herald*, who had been with Field almost continuously since the summer of their disappointing junket to the Gulf of St. Lawrence, next took over the telegram facilities to send a dispatch to his paper. "The Atlantic telegraph cable is laid!" he exulted. "U.S. Frigate *Niagara* has reached Trinity Bay, Newfoundland, and landed her end of the line. The *Agamemnon* has reached Valencia on this same day with her end of the cable. The electric communication is perfect, and signals are passing between the two stations with the greatest accuracy."

Mullaly wound up his story with the not entirely precise information that "the laying of the cable by both ships was accomplished in a little over six days," thus choosing to ignore the years of struggle that had preceded those six days, the storms, the bitter criticism and the near-heartbreak that had faced Field and his associates in the long months that lay behind them.

Immediately, of course, the news of the cable was flashed to all parts of the world. In England where, ironically, Field had received his greatest encouragement, the word was received with typical British reserve. There was polite

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applause, the complete account of the adventure was printed in the newspapers of the day and that pretty much was that. The English accepted the reality of the cable almost as casually as they would an announcement of a new coach line to Sussex.

In America, however, where Field had been repeatedly lambasted as a scoundrel and a fool, people went wild. Schools were closed, business houses shut down, snake dances sprang up in the streets, bonfires were lighted and parades formed wherever four or more people came together to talk about the amazing underwater wire. It was a period of celebration for America that reached a climax several weeks later.

President James Buchanan, at his summer White House in Bedford Springs, Pennsylvania, was informed of Field's success, and was reminded that the first message over the cable was to be one of congratulations to him from Queen Victoria. Buchanan's answer to Her Majesty would in turn constitute the first message west to east.

Buchanan got off a long wire to Field at once, congratulating him on his great triumph, heralding him as one of the great men of the hour, and wishing him all manner of success and good health. The chief executive wound up this greeting with a comment that had its ominous overtones.

"I have not yet received the Queen's dispatch," Buchanan concluded, with the not too subtle suggestion that he would believe in the reality of this new gadget when Victoria's words were delivered into his hands.

In point of fact, nine full days were to pass before the Queen's message traveled under the seas. In the interval, various test messages were sent laboriously back and forth over the cable But there was muttering in some quarters that the whole thing was a fake, that Field's wire never had worked and never would.

Then, on August 14, the directors in London sent what later was to constitute the first official message over the wire. "Europe and America are united by telegraphic communication," they wired. "Glory to God in the highest, on earth, goodwill toward men."

It took 35 minutes to send this 20-word message from Ireland to Newfoundland, since the men sending and receiving had constantly to interrupt for repeats.

Next, Queen Victoria's congratulations to Buchanan sputtered over the circuit and was sent on to Buchanan over the land wires. With its announced arrival, a new wave of celebrating broke out.

In New York, more fireworks were set off, more parades formed and again the bonfires were lighted. A torchlight parade that erupted in City Hall Park reached such joyous rioting that a rocket, set off by an uninhibited celebrant, went awry and set fire to the cupola atop City Hall. This brought out the fire laddies, who soon found themselves helpless to control the conflagration because of a failure in the water main from Croton reservoir. Eventually a bucket brigade managed to get things under control before the whole building burned down.

While this was going on, the parade wound out of City Hall Park and headed for Gramercy Park, uptown, where a solid mass of shouting, cheering citizens demanded the appearance of Mrs. Field, Peter Cooper, David Dudley Field and anyone else they could get to open their front doors and bow to the mob.

Unfortunately, even this spontaneous celebration was to end on a sour note. Somehow, Queen Victoria's greeting to Buchanan—a long, typically high-blown sounding off about the cementing of relationships between the two countries—became fouled up in transmission from Newfoundland to Bedford Springs, the little country town in southwestern Pennsylvania. For several days all Buchanan received was the first paragraph of the message.

This latter merely said that "The Queen desires to congratulate the President upon the successful completion of this great international work, in which the Queen has the deepest interest."

Period.

It was hardly the sort of warm, joyous message of triumph which would be customary on such an occasion. Buchanan and his advisors were frankly puzzled. Was this the Queen's way of coldly intimating that she placed no stock whatsoever in the wire?

In diplomatic circles, all was confusion. How did you answer such a brief and chilling greeting? If Buchanan sent his previously prepared and elaborate answer, and hinted that he believed the cable was the scientific wonder of the century, would not he make himself out to be a fool and later be shown to have been taken in by these scoundrels, whereas the Queen of England had not been?

Happily, Buchanan was taken off the hook when the Queen's message, in its entirety, eventually trickled over the wires to Bedford Springs, and Buchanan and his Cabinet breathed a collective sigh of relief. The rest of Victoria's message read:

"The Queen is convinced that the President will join her in feverently hoping that the electric cable which now connects Great Britain with the United States will prove an additional link between these nations, whose friendship is founded upon their common interest and mutual esteem.

"The Queen has much pleasure in communicating with the President, and renewing to him her wishes for the prosperity of the United States."

Buchanan replied: "To Her Majesty, Victoria, Queen of Great Britain. The President cordially reciprocates the congratulations of Her Majesty the Queen on the success, skill and indomitable courage of the two countries. It is a triumph more glorious, far more useful to mankind than was ever won by a conqueror on the field of battle.

"May the Atlantic telegraph, under the blessings of Heaven prove to be a bond of perpetual peace and friendship between the kindred nations, and an instrument destined by Divine Providence to diffuse religion, civilization, liberty and law throughout the world. In this view, will not all nations of Christendom spontaneously unite in the declaration that it shall be forever neutral, and that its communications shall be held sacred in passing to their places of destination, even in the midst of hostilities."

If a clincher was needed to bring final assurance to the public that the cable was a reality, however, it came with the first news dispatch over the wire on August 27. This, the first of its type ever flashed across the oceans, turned out to be typical. The first item, date-lined Paris, began, "The Emperor of France has returned to Paris." The cable continued: "Vienna—The King of Prussia is ill and will be unable to visit Queen Victoria as planned. St. Petersburg—Chinese question settled; Chinese Empire opened to trade, Christian religion allowed. Alexandria—Steamer Madras has arrived at Suez."

This news, appearing in America newspapers exactly 24 hours after it had taken place abroad—thus cutting approxi-

mately 13 days off the best previous time needed for sending messages of any kind from Europe to America—was all most Americans needed to assure them the laying of the cable had indeed been the greatest single event of the 19th century.

On the purely commercial side, the value of the cable was shown almost immediately. India had been experiencing a series of riots against British rule, and it had been decided to move Britain's 62nd Regiment from Canada to India. But the cable brought word of the settling of Indian unrest to Halifax in a matter of minutes, thus canceling the regiment's sailing orders, and saving the British government thousands of dollars of expenses involved in such a mass movement of troops.

But if doubt still existed in anyone's mind, Field was able to dispel it with one quick and dramatic thrust. When a trans-Atlantic steamer docked in New York with the ominous word that two Cunard ships, the *Europa* and the *Arabia*, had collided in mid-ocean, there was the wildest kind of speculation as to the seriousness of the situation.

There being no ship's wireless in existence, of course, the relatives and friends of passengers aboard the two ships naturally had no way of knowing the fate of their loved ones. The operators of the two vessels, as well as their insurance companies, also ordinarily would have been forced to wait several weeks to get the news.

Field was able to clear up all their questions in a matter of hours. A cable to England brought back the reassuring answer that the collision had been a minor one, with no lives lost and both ships making port under their own power.

By now there was little doubt in anyone's mind that the age of transoceanic cable communication had arrived. The celebrations now took on really tumultuous aspects. September 1, 1858, was designated as a holiday to pay homage to Cyrus W. Field.

On this day, the father of the cable received as wild and uproarious an ovation as any to be seen in New York for the next three-quarters of a century, or until the time when the city welcomed another hero to its bosom, Charles A. Lindbergh. From Castle Garden, at the Battery, to the northern reaches of the city—the countryside around 23rd Street, where the Fields had a pasture for their cows—the streets were decked in bunting. Business firms vied with one another in decorating their shops and offices, and did a bristling business in peddling space in their windows for vantage points from which to catch a sight of the hero of the day.

Every hotel, from the Battery to Fulton Street, was jammed to overflowing. Banners hung from every window and ledge, carrying such legends as "Blest Be the Tie that Binds—America and England;" "The Atlantic Cable—Necklace of the World;" and "New York & London—One City." At least every other one proclaimed virtual sainthood for Field.

The dinner in his honor that evening, held in the fabulous Crystal Palace, was sold out almost instantly to the most important big wheels in the city. The main address was delivered by the celebrated orator, Edward Everett. Mayor Tiemann and the heads of his city government were there, the blessing was asked by Archbishop Hughes, the city's leading Roman Catholic prelate, and leaders from every other organized religion interrupted each of the more than 20 courses to call upon the Almighty in gratitude for this earthshaking moment in world history.

Long after midnight, the ferries still were reported running way behind schedule as they desperately tried to cope with the crowds who attempted to jam the city from communities as far as 100 miles away. Out on Long Island, news reports stated that the entire area was virtually one huge cloud of dust as coaches, buggies, surreys and anything else that would travel fought to bring people to the city for a glimpse of Field.

It would be nice if the story could end right there, with Field forever after enshrined in a hallowed niche in the hearts of his countrymen. Regrettably, it didn't happen quite that way.

Just six days later, September 7, the *Times*, of London, carried a letter to the editor from one of the directors of the New York, Newfoundland & London Telegraph Company. He wished to set the record straight, he wrote, regarding a number of rumors which had cropped up in the previous several days concerning the cable. The wire *had* gone dead on the 3rd of September, as reported, he acknowledged; it was a temporary interruption of the service caused by the wire's having been overloaded in the excitement of its first days of operation. It would be back in service, he promised.

It was. After a few day's rest, it was sending and receiving messages again. But there was no doubt the signals had grown considerably weaker, and there were grounds for the pessimism that now began to be expressed with every mention of the telegraph. Finally, on October 20, after frequent interruptions, the wire breathed its last.

Immediately the hue and cry against Field became almost as loud and clamorous as it had been just a few weeks before, when he had been proclaimed the man of the hour. *Now* would people believe what had been obvious to anyone with intelligence—that Cyrus W. Field was a faker! Indeed, he was even a greater charlatan than he had first appeared to be, for, not content with foisting this colossal fake on the public, he even had had the gall to stand up before them and accept their plaudits, their cheers and their civic honors!

For a lesser man than Field, it could have been a crushing blow. But it wasn't, simply because Field had proved to *himself* that the cable would work. What's more he had proved it to men of science and stature who, in the future, would not be inclined to scoff when their help was requested.

As it turned out, however, it took another eight years before a second cable was laid by the steamship *Great Eastern*, eight years, including four years of Civil War in America, during which Field was to run into road blocks and disappointments. But he never once gave up on his original idea, and it was this determination that finally enabled him to achieve his goal of a successful, underwater cable.

"It has been said that the greatest boons to mankind," wrote the Englishman, W. H. Russell, in his book on the Atlantic telegraph, "have been conferred by men with one idea. Mr. Field may be likened to the core of the cable itself. Let who will claim the merit of first having said an Atlantic cable was possible; to Mr. Field is due the inalienable credit for having made it possible."

Today, almost a hundred years after Field's first crude attempts to lay the cable, there are 21 wires stretched on the floor of the Atlantic between Europe and America, in one of which—still in active, everyday use, according to Western Union—are sections of the original wire laid by Field.

As to the future of submarine cables, there are those who say they eventually and gradually are being rendered obsolete by modern means of communication.

To which cable men utter an emphatic no! In times of atmospheric disturbance, they point out, radio waves frequently are thrown out of kilter for days at a time, making the use of the cable virtually a must for important messages that can't afford to be delayed. What's more, it's possible for a telephone to be tapped, a radio message to be snatched out of the air by any unauthorized person with receiving equipment powerful enough to do it. To date, no one, even in wartime, ever has figured out a way to tap a cable.

Just this year, Bell Laboratory technicians experimented successfully with a new type of subocean cable, a two-inch pipe through which can be sent sound waves which eventually will make possible the uninterrupted transmission of television programs from one hemisphere to another with as much ease as they now are sent from the center of a city into the suburbs. Although still in the experimental stage, this new kind of cable, the Bell engineers say, will be in use soon.

If so, the scientists might not object to a suggestion for the first picture to be transmitted under the ocean—a likeness of Cyrus West Field.—**Maxwell Hamilton**

A True Book-Length Feature

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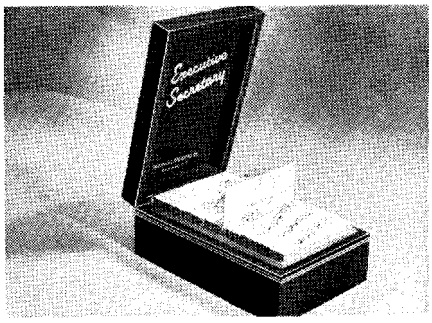

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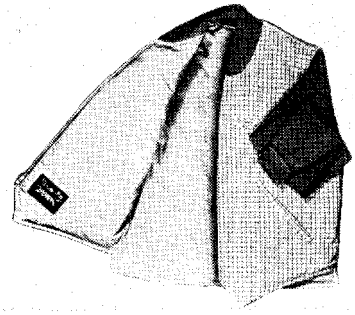

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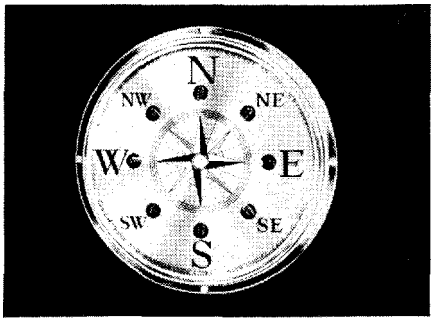

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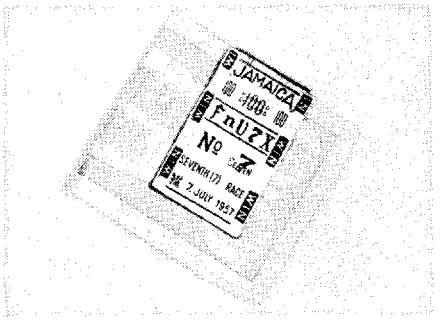

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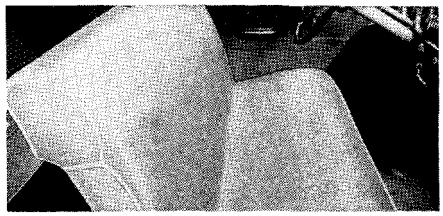
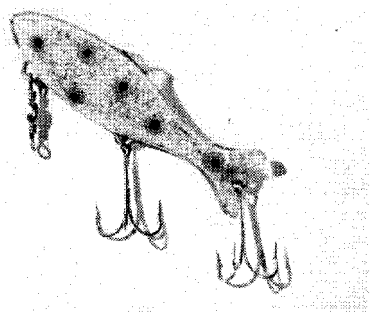


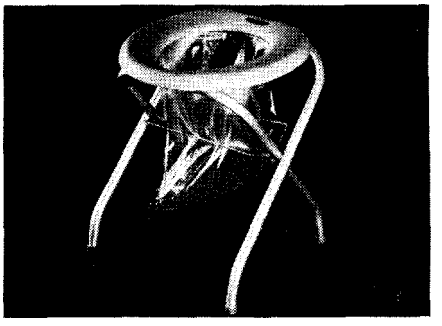
Durable all-nylon seat covers will protect your upholstery, keep your car interior neat and clean. No tacks or nails needed to install them. They slip over seats, can be easily taken off and washed. Covers dry quickly. Come for $2.98 for front split seat, or front or back solid seat; $5.50 for both. Add 25¢ post., or C.O.D.

Mardo Sales Corp., Dept. NB-60
480 Lexington Ave., New York 17, N. Y.

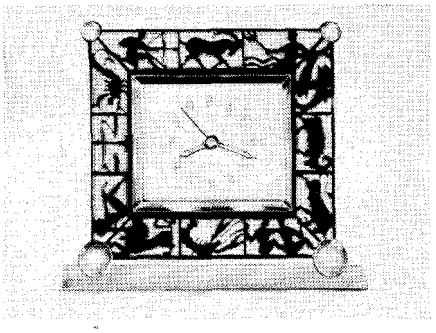
TRUE



FISHING TACKLE in a mystery box. The box we received contained this fancy lure, some flies, hooks and a number of other fishing items. Each box contains a different assortment and, on occasion, a pole or a reel is included. If you're a fisherman, you'll be able to use everything in the package. $1 postpaid from Conrad Company, Box 828, Minneapolis, Minn.



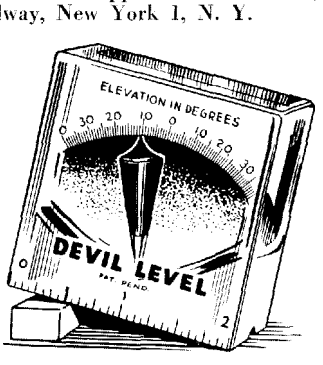
PORTABLE TOILET is the answer to those uncomfortable moments in the car or in the field. Easily carried, it folds flat for storage. Standard height with home style seat and aluminum frame, it comes complete with a supply of plastic disposable bags which are sealed with a clasp after each use. $11.95 ppd. Goode Products, Dept. G, 7542 Maie Ave., Los Angeles 1, Calif.



ALARM CLOCK which features all 12 signs of the Zodiac. This imported clock uses a black metal cut-out on a polished gold-colored background, a satin-finished, gold-colored base for each of the signs. Dial is two-tone silver and white and is luminous. 4½ inches by 5 inches, with seven-jewel movement. $15.95 ppd. from Kaskel's, Dept. 510, 11 West 57th St., New York 19, N. Y.

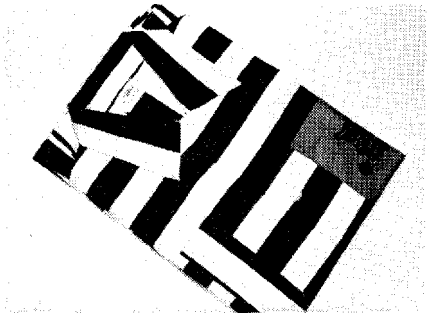
DOLLS in quantity will keep the tiny female busy for a while. Three inches long, with moveable arms and hair, they are made of celluloid. Each doll is dressed in a different costume and is surprisingly attractive. Something else which is surprisingly attractive is the price. Twelve dolls in a box for $1 ppd. House of Dolls, 1170 Broadway, New York 1, N. Y.

WHEN YOU ORDER from True Goes Shopping be sure to specify you saw the item in TRUE. This will assure your order is accepted at the prices published.

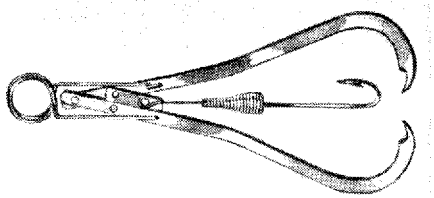


LEVEL reads angles up to 40° and is scaled one inch to the foot up to 10 inches. Square, engineered plastic case permits leveling from top, side or bottom. Mounts in simple frame for leveling over long or rough surfaces. Bob floats in self-sealing liquid plastic. Handy for do-it-yourself enthusiasts. $2 ppd. from Edmund Scientific Corp., Barrington 4, N. J.

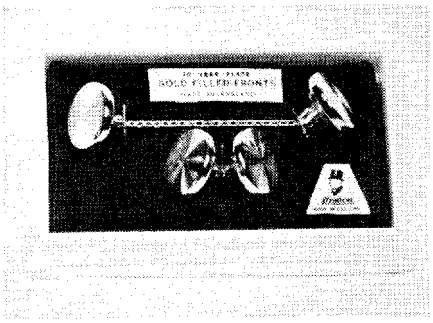
goes shopping



PAJAMAS with prison stripes, also distinguished by a red owl with a ball and chain on the pocket. Makes a good gift or a good extra set for guests. Pajamas are sanforized poplin and the price is $4.98. Two pairs (he and she) are $8.98. Sizes are S, M, L. Matching hat $1. Prices include postage. Mardo Sales, Dept. T-11, 480 Lexington Avenue, New York 17, N. Y.



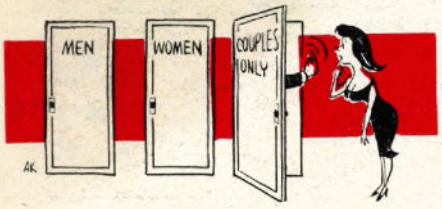
HOOK clamps into the fish the first time he strikes. Tongs of sharp nickel metal make it impossible for fish to break away. Equally effective in deep or shallow water for casting, still-trolling, ice. Tongs clear away weeds, keep hook from snagging. Hook is interchangeable with any lure. $1 postpaid from Kayenvee Enterprises, Box 335, Oscaloosa, Iowa.



CUFF LINKS with an unusual and practical feature. A chain running from link to link stretches so that you can push up your sleeves to wash your hands without removing links. You can put them in before putting on your shirt. Holds cuffs firmly. 10K gold filled. British made for men or women. $4 ppd. from Sonic Associates, 1626 St. Nicholas Ave., New York 33, N. Y.

REACTIVATOR keeps septic tanks and cesspools clean. A bacteria concentrate breaks up solids and grease; prevents overflow and back-up odors. Also keeps indoor plumbing clear. Non-poisonous and non-caustic. Can save you some costly plumbing headaches. 23 oz. can, enough for six months, is $2.95 ppd. from Northel Distributors, P. O. Box 1103, Minneapolis 1, Minn.

this funny Life



The roadside tavern in New Mexico looked nice, so my wife and I decided to stop for a cold beer. As we walked in, I couldn't help but notice *three* doors in the rear of the barroom. They were labeled:

MEN WOMEN COUPLES ONLY

My curiosity got the better of me: I coaxed my wife to step through the "Couples Only" door with me. We found ourselves standing in a dance hall.

—E. T. Harrison
Casper, Wyo.

I was delegated to pass the hat around our little Montana wheat town to raise money for the local basketball team. The team was terrific but needed funds to get to the tournament.

I decided to start the collection in the bars and taverns where the village sportsmen gathered. They were usually generous in their donations. My luck wasn't good, though; I happened to hit a prominent citizen who hated basketball. He started to damn the game, and my hopes for collecting money faded. But at that

moment, the big Norwegian bartender strode over to us.

"You miserable tightwad!" the bartender bellowed at my critic. "Why for all you know, half those kids are yours!"

Without a word in reply, the man pulled out a wallet and dropped a twenty in my hat.

—E. V. Reyner
Townsend, Mont.

The wise guy in our Air Force squadron near Athens, Greece, was a major who fancied himself as a brilliant linguist. One day he had an opportunity to show off his mastery of the Greek language on the telephone.

After a noisy 15 minutes of conversation, the major angrily turned from the phone and shouted to our regular interpreter: "Junior! This jerk can't understand Athens dialect. Find out what he's saying."

Junior, the interpreter, sauntered to the phone, listened a moment, then quietly reported: "He was saying, 'wrong number.' "

—Robert Blaylock
7206th Air Base Sqdn.
c/o Postmaster, New York

The Virginia City, Nevada, assay office was in an uproar over a strange mineral that couldn't be analyzed. Nothing like it had ever been seen before. It was the size and color of a coconut, but when chipped open, it revealed dazzling, ripply stripes of bright red, white and blue.

Finally, the assayer admitted his failure to the grizzled prospector, but persuaded the old fellow to show him where the mystery mineral came from. The "mine" was on the site of an old ghost town, right where the gambling hall burned down. The mysterious mineral was composed of racks of poker chips that had melted and fused together, then weathered for 50 years.

—Andrew Caffrey
Santa Ana, Calif.

While attending a doctors' convention recently, I accompanied a group of psychiatrists on an inspection trip of a nearby insane asylum. We all loaded into

a Greyhound bus for the drive over to the asylum, and when we pulled up to the gate, the guard shouted at the driver: "See you got a big load this trip."

—James Scales
Jackson, Mich.

When we opened our pay envelopes last week, the teller next to me in our bank cried out: "Why, they made a mistake, and gave me eight dollars too much! Won't the manager's face be red now!" he crowed. "This will make up for that bawling out I got for the ten dollar cash-back error."

I suggested to the jubilant teller, George, he may have been given a raise, but George scoffed: "Give me a raise without a lot of fanfare in the front office? No, sir!"

At this point, the manager walked by and George gleefully held up his pay envelope saying: "Well, Mr. Stevens, it looks like the bank made a mistake."

"Maybe so," the manager softly replied, "but we gave it to you, anyway."

—Henry Allen
Los Angeles, Calif.

While walking with my little boy yesterday, we stopped a moment to watch an elderly man busily digging a large hole. My boy piped up, "What are you digging for?"

The old fellow stopped, leaned on his shovel and observed quietly: "Well, son, I *used* to dig to China—when I was your age. But I got a little older and I dug for gold. Then, I even tried digging for oil. Lately, I thought about digging for uranium, but I gave up the idea because I know what kind of digging really counts. *I'm digging a cesspool.*"

—Lois Pasley
Falmouth, Mass.

"Frenchy" who lives way up near the Canadian border is notoriously tightfisted; he wouldn't even buy a horse to ride into town. Consequently, the local druggist was really astonished last week when Frenchy walked in and said he wanted to buy a baby's bottle.

"Well, well," said the druggist. "Glad to hear the child was born, Frenchy. But don't you think buying a baby's bottle is a little bit extravagant?"

"Oh yes!" agreed Frenchy. "But I have to. My wife—she has had triplets."

—James Johnson
Greenville, Me.

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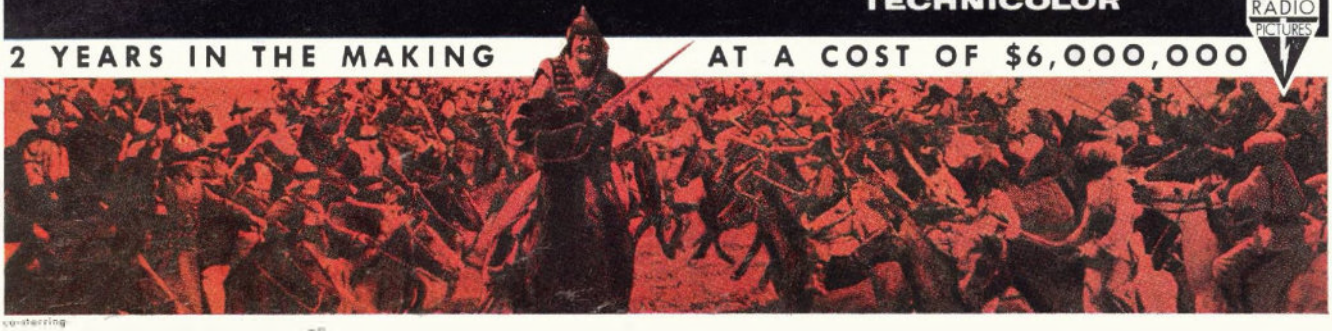

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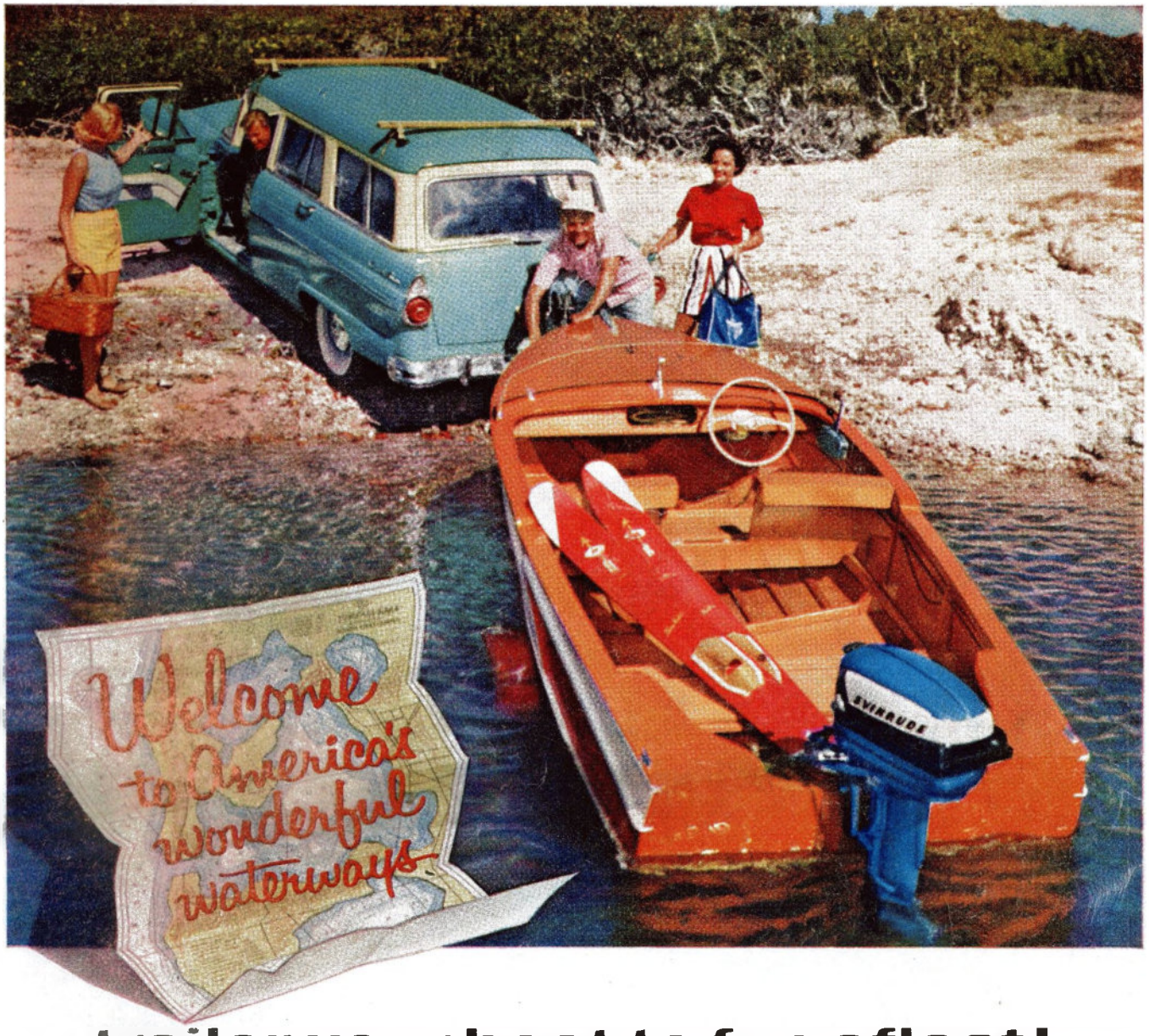

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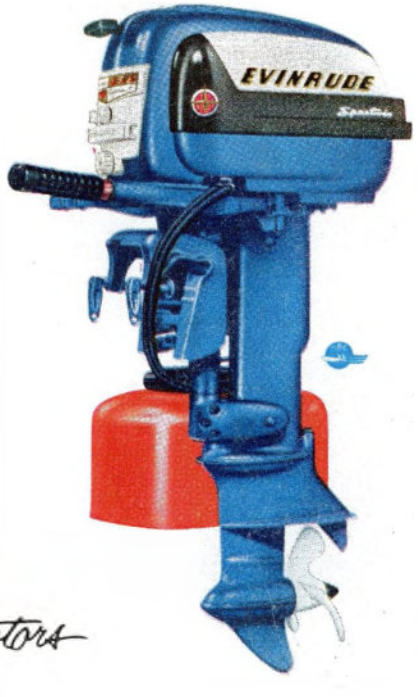

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