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*combined with*

# American Boy

Est. 1827

August  
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## The YOUTH'S COMPANION combined with American Boy

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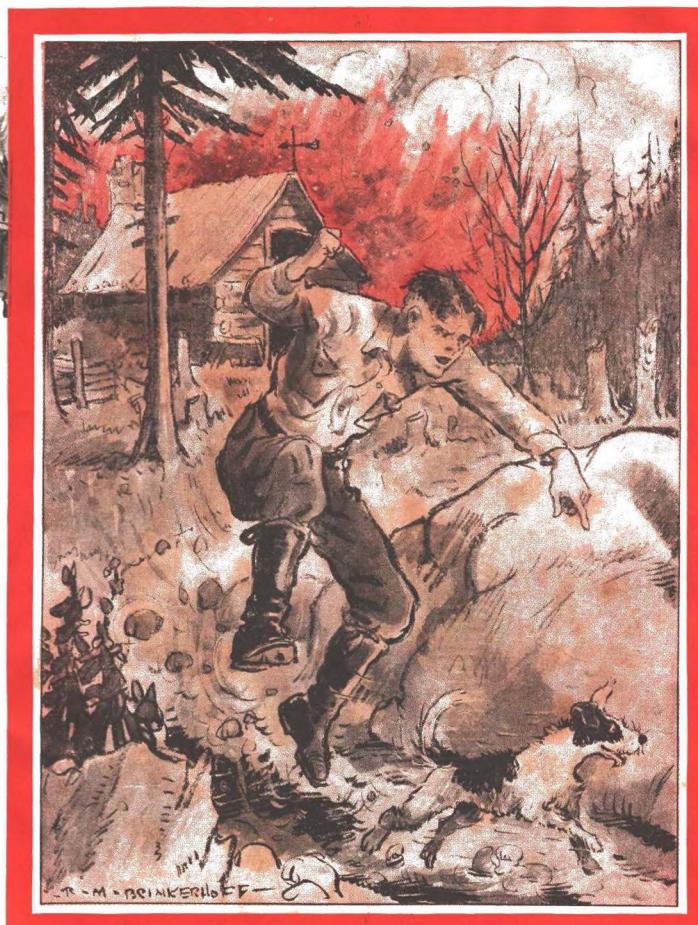
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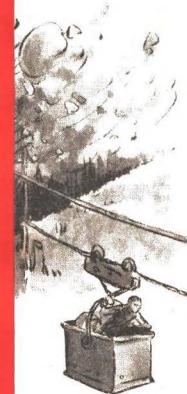


A  
Long Story  
Complete  
in  
This Issue



Illustrator:

ROBERT M.  
BRINKERHOFF



He pointed his  
finger at Skill-  
libooch. "Go  
find Sir George!  
Understand?  
Cats! Sick 'em!  
Cats!"

# King's Crazy

by

Winston Norman

ABOARD the stern-wheeler *Nasookin*, northward bound on Kootenay Lake in the Selkirk Mountains of British Columbia, Hal King bustled a regulation and climbed the companionway to the pilot house. To his wire-haired partner and fox terrier, "Come along, Skillibooch!" he commanded; and Skillibooch, stepping high to avoid tripping on his chin whiskers, came along.

At the head of the deep stairway, brushing by a sign that read, PASSENGERS NOT PERMITTED ON THIS DECK, Hal kept his gaze straight ahead. "Eyes front, pooh," the rule-breaker instructed. "Just pretend you can't read. We've got to find the captain. This is a matter of life and—excuse me!"

An official-looking brass-buttoned chest barred the

invader's way, and a deep voice remonstrated: "Lad, dinna ye ken there's a sign that—"

"Yes, sir," Hal interrupted quickly. "I disobeyed the sign. If I were you, sir, I'd stand over and put me ashore. In fact, I wish you would."

The captain of the *Nasookin* smiled slightly. "In that case ye can go by the rail and swim ashore, but there'll be no port calls this side of Kaslo, forty miles from here."

"If I go through to Kaslo I'll have a long trek back," Hal continued, talking fast. "Captain, I want to go to the King's Chance Mine. Doesn't the *Nasookin* ever stop near there?"

"It does not. An' furthermore there's no such mine along the Kootenay."

"I'm sure there is," said Hal. "The King's Chance

—about ten miles this side of Kaslo, according to my—"

"Hold on. You mean the King's Crazy. That's yer mine, lad. Named for auld Klondike King that threw away a fortune there twenty-five years ago. A gude man, Klondike King, but crazy as a loon."

"Yes," Hal agreed, "I guess Dad is."

"What's that?" Startled, the captain looked sharply at his visitor, and then said, laughing, "You Klondike King's son! I'm sorry, lad. I didna mean—"

"That's all right. Dad warned me that everybody around here thinks he's crazy."

"Verra well. But by way of apologizin' I'll put ye ashore. The *Nasookin* will stand over at Cat's Landing in two hours, and from there it's barely a

hoondred paces to the King's Crazy. Sir George Bellows will be there to greet ye, na doot with a shotgun. Sir George is a gruff auld hermit. He lives alone with a bodyguard o' cats."

"That checks with Dad's report," Hal agreed. "Has Sir George come into that English title he's heir to?"

"Na so far as I've heard. His uncle, the baronet, is still alive in Cheltenham. The auld gent is stubborn—near a hoondred and still hale. It's little wonder Bellows is a grouch. So, lad, ye've come to see where yer father once sunk a fortune?"

Hal turned toward the companionway. "That's it, Captain. And I may go so far as to find the lost ore body and get back Dad's two hundred thousand."

"A true son of Klondike King," the *Nasookin's* master called after him. "It's two of a kind—and both crazy! Gude luck."

Up forward, Hal leaned against the jackstaff and faced into the stiff breeze. Close beside him Skillibooch perched on his tail, sniffing large lungfuls of freedom and doing his best to forget four days in a bumping baggage car.

"Whadd'you think of it, mutt?" Hal demanded. "This is big scenery! No wonder Dad itches to come back. Look over west there—" He grabbed the Skillibooch nose and aimed it toward the towering sky line of the Selkirks. "Look at those mountains—two miles high and still climbing. This is geology on a big scale, what?"

The wire-hair jerked his tail three times, indicating that he approved of geology. Where there is geology there must be rabbits.

Within two hours, true to the captain's promise, the *Nasookin* moaned a landing signal through the darkness and nosed into Cat's Landing. Hal and Skillibooch, on the main deck, waited for a gangplank.

In response to the signal a man had come down to the dilapidated wharf, and he now stood, blinking, in the glare of the *Nasookin's* light.

"Must be our joyful host," Hal guessed.

The man was wearing a gray flannel shirt, buttoned high, and a pair of war-torn pants that sagged around his skinny frame. Except for a bordering hedge of fuzzy gray hair his head was devoid of vegetation. His face, however, made up the loss.

"If he ever shaves he'll need a scythe," was Hal's verdict. "He and Skillibooch are almost twins. Come along, partner—gangplank's down."

When he had gained the wharf, Hal turned and waved his thanks to the captain. "All clear," he shouted. "Give 'er the gong!" Then he addressed the welcoming party. "Mr. George Bellows?"

"None other."

"My name is Hal King."

The total population of Cat's Landing scowled ferociously. "What of it?"

It seemed that further explanation was required. "Klondike King's son," Hal added.

"Well, I'm a ring-tailed raccoon! You mean to say you're offspring from that reptile of a—" Sir George stopped short and began to make frantic gestures toward the departing *Nasookin*. "Whoa! Hold on! Call back your steamer—it's gittin' away!"

"That's all right," Hal assured him. "I'm staying here. I came for a nice, long visit."

For a moment speech failed Sir George, and then he snorted: "Well, that's the lowest trick John King ever played on me! Givin' birth to child behind my back, raisin' him up, and then sendin' him out here to pester my declinin' years. Gimme that lugage!"

In spite of Hal's protests, Sir George seized his suitcase and blanket roll and in bitter silence led the way toward his cabin. Hal followed through a grove of giant firs and cedars, with Skillibooch a close third.



Into the explosive calm, Hal tossed a spark. "Dad sends you his best regards, Mr. Bellows, and he trusts that your uncle, the baronet, is well."

Sir George stopped in his tracks. "Oh, he does, does he? Well, young feller, you can tell him for me that my uncle is doin' very nicely, the old stick-tight. And just add onto that about three pages describin' how pleased I'd be to see your old man in perdition!"

They had arrived now at the Bellows mansion, and Hal's joyful host kicked the door open. Skillibooch crossed the threshold, sniffing—and then cyclone took place. To Hal, it seemed suddenly that forty or fifty cats were leaping about, sputtering and screeching, with a carload of wire-haired terriers in raucous pursuit.

After a while the storm quieted and Hal, looking above him, was able to revise the cat census. Three large and deeply insulted felines were perched on rafters, their tail feathers fluffed in indignation.

Sir George had seized the nearest weapon, a snowshoe hanging on the wall, and dived at Skillibooch. The cat chaser, taken by surprise, yelped once and skidded through the doorway.

Panting, Sir George dropped into a chair. "There it goes," he moaned. "First crack, trouble happens! Not content with comin' up here yourself, personally, you got to bring along a menagerie. Kitty, kitty—come, Victoria. Gladstone, will you climb down here?" Gladstone apparently would not. His owner scowled. "Dog-gone it, nothin' but grief ever came of me knowin' Klondike King! Nothin' but trouble. Now he goes and sends an impudent young—Elizabeth, git down off that rafter! Puss, puss."

Hal sat down and dried his eyes. "I'm sorry, Mr. Bellows. Let me apologize for Skillibooch's bad manners. He only wants to play. If one of your cats had stood his ground and spit at him he would have gone into reverse and run the other way."

Sir George grunted. "Just explain that to Gladstone. Maybe he'll believe you." He got to his feet. "I suppose I got to feed you now."

"No, thanks—I had dinner on the *Nasookin*."

Ignoring his refusal, Bellows shuffled toward his lean-to kitchen, and within a few minutes the aroma of frying trout and baking biscuits made Hal forget he had ever had anything to eat.

Sir George poked his head through the doorway and demanded information. "Besides plain cussedness, what brought you up here?"

"An idea for surprising my father. Dad told me he used to have a cabin up above here. Is it still standing?"

"Far as I know," Sir George returned. "It was when I last saw it. Up on Porcupine Ridge."

"Well, I'm going to do a little carpentering and fix up that cabin for Dad. This is the reason—" Hal hunted a letter out of his pocket. Holding it in the light of the coal-oil lamp, he read it to his host:

"Dear Son:

"Some years before you were born, and after I made a clean-up in the Klondike, I went broke,

as usual, playing a bum hunch. I bought a silver-lead property on Kootenay Lake, B. C., dubbed it the King's Chance, and set to work with two hundred thousand and a lot of grandiose ideas. Well, she hit a fault, I lost the ore body and the Klondike grubstake, and a few months later I was mucking to pay my fare back to the States.

"During the hopeful period I built a cabin in the ridge above the King's Chance and spent many happy weeks in it. Some of these days I'm going back there with a side of bacon and locate in the cabin again for a while.

"Now that you've finished Stanford, why don't you arm yourself with a toothbrush and look over that Kootenay country? You claim to be a mining engineer—how about giving me a report on the King's Chance? Somehow I can't get rid of the idea that she's a rich prospect. You'd be well cared for up there. Sir George Bellows, a former partner of mine, and the grouchiest old skinflint west of Nova Scotia, lives—"

"Never mind," Hal's audience interrupted. "Don't read any farther. So I am, am I? Well, maybe so, but I still got my sanity, and that's more'n your old man ever had! Who else but a ravin' maniac would

"I'd like to see the old workings of the King's Chance tomorrow," Hal said before he fell asleep. "Has the drift caved, or can we get in?"

As best he could in the absence of his false teeth, which were roosting for the night in a glass of water in the kitchen, Sir George Bellows answered the question. "It's not very safe, but perhaps we can. Now shut up and lemme sleep!"

On the following morning, with Sir George leading the way, Hal and Skillibooch climbed the zig-zagging trail that led through dense forest to the top of Porcupine Ridge. At the summit, two thousand feet above Kootenay Lake, Hal saw the cabin that had once been his father's home.

Built of the forest, fashioned from roughly hewn logs, roofed with cedar shingles—Klondike King's stronghold had weathered two decades of wind and rain, deep snow, and blazing sun.

"That," said Sir George, with a gesture, "was the home for the feeble-minded."

The rust-locked hinges of the door yielded finally to Hal's shoulder, and a moment later he stood inside the cabin, surveying its three-legged table, two plain chairs, stone fireplace, and wooden bunk.

"Good as new," Bellows commented. "Sweepin' out, soap and water on the winders, few fir boughs for a mattress, some cookin' tools, and a lamp is about all she needs. Better fit it busted pane, though, and close up all holes

Hal turned to Sir George. "Is there any water near here, Mr. Bellows?"

"Spring about a hundred yards north. Come along and see."

Returning from the inspection of the water supply, Hal's guide pointed to the mouth of a cavern in the hillside. "That's one of the drifts Klondike put in up here, lookin' for the continuation of the ore body."

"Wait a minute," said Hal. "I want to look it over."

He struck a match and entered the drift. Reappearing half a minute later, he reported: "Not much to see. Doesn't go in more than fifty or sixty feet."

"Reason bein' that this is where Klondike run out of cash," Bellows explained. "This was his last card, and she turned out to be a joker. Now, young feller, follow me and I'll show you the ore tramway your crazy old man built without havin' found a speck of silver lead up here."

The upper terminal of the tramway was protected by a shed of logs, but heavy rust covered the cables, the braking equipment, and the mammoth ore bucket. A twin line of overhead steel cables, suspended from cross-arms on a series of high posts, extended for three-quarters of a mile down the ridge to the abandoned mill near Cat's Landing.

"Say," Hal exclaimed, "a trip in this bucket would be a first-class joy ride!"

"A first-class funeral," Sir George amended. "She hasn't been run since Klondike left here. Look at the

rust on those cables. Look at the way those posts are saggin'. You stay out of that bucket—I'm not anxious to climb down and pick up a fool corpse."

"This bucket's loaded with rock," Hal observed. "I'll bet a plugged nickel she runs!"

He sprang to the lever of the old-fashioned band brake, tugged furiously, and succeeded in releasing it. Nothing happened. Shaking his head, he gripped a roof post with one hand, leaned far out, and pushed on the giant ore bucket until it started to swing.

The pulley by which it was suspended from the cable began to screech. The leading cable that connected it with the empty twin bucket, four thousand feet down the tramway, went taut. Slowly, groaning under the pull of gravity, the bucket slid away.

"Whoops!" Hal shouted. "She works!"

Gaining speed, the heavy-laden bucket careened down its overhead cable, on and on, recklessly. Midway of the three-quarter-mile run it passed the empty bucket coming up. Hal watched, grinning with happy thought.

"What luck," he said a little later as he and Sir George started back down the winding trail to Cat's Landing. "With me at this end, loading the top bucket with rock, and you down at the other end, I can fix Dad's cabin without hauling any supplies up the hill. We'll let the tramway do it."

Sir George Bellows grunted. "Listen, young feller, I got somethin' to do besides playin' around with worn-out tramways. And if you're expectin' me to take you into the King's Crazy, you'd better shut up and shake a leg."

Back again at the Bellows mansion, Sir George filled a carbide lamp and Hal armed himself with a flash light and a prospector's pick. Then they headed for the mouth of the King's Chance and plunged into the underground darkness.

It was chill and wet in the



With Skillibooch and the cat cargo aboard, Hal sat in the rowboat and waited. His nightshirt billowing in the wind, Sir George came dashingly toward the wharf.

have bought this mine in the first place? Who else would have gone and built a mill before he even knew how much ore he was goin' to get? And then he loses the ore body, and instead of runnin' exploration drifts at the face of the tunnel, he starts gopherin' around on the ridge two thousand feet above, thinkin' he's goin' to find the outcropin' of the original vein. And goes and builds a tramway down here to the mill!" Sir George was sputtering excitedly. "So I'm a grouch, am I? Well, what made me a grouch? It's seein' dangerous lunatics like Klondike King left at large!"

"Do I smell biscuits burning?" Hal answered sympathetically, suddenly feeling fierce hunger.

His hunger had diminished somewhat following the fourth trout and the second dishful of biscuits and jam. When the outcast Skillibooch had been presented with a fin-bearing banquet, and when Elizabeth, Victoria, and Gladstone had been persuaded to come down from their perches aloft, Bellows and Hal hit the hay.

against the blasted thievin' pack rats."

"My partner will attend to that," Hal answered. He addressed the sniffling Skillibooch. "Mutt, I hereby name you official rat catcher. Easy hours and a good chance for promotion. Rats—go git 'em! You understand?"

Understanding perfectly, Skillibooch barked two sharp syllables, meaning, in wire-hair talk, that he would accept the position.



Three felines were perched on rafters.

tunnel. Hal's boots sloshed through the ground water. At one point where the aged timbers had given way, Hal and his gloomy guide crawled on all fours to pass a cave-in. Hal guardedly tested an upright post with his pick, and a rotten chunk of the timber dropped away.

"This is nasty ground," he said, his voice startling in the utter silence.

"Whose idea was it, anyhow?" the grrouch retorted over his shoulder. "Serve you right if she dropped on us. . . . We're comin' to the face now."

Up ahead, finally, the beam of Hal's flash light revealed the end of the tunnel. "This is where the ore body petered out," Sir George explained. "Up to here she was rich galena. Then we hit a fault and lost her complete."

Hal examined the wet rock about him. With the little pick he slashed away a bit of the rock and studied it.

"Schist," he said. "Limestone vein, wasn't it?" "You're right," Bellows agreed. "She was till we came into the fault."

Long ages before, Hal knew, the vein had run into the earth in a straight line, but the up-tilting of the Selkirks had sheared it off and moved the segments far apart. For five minutes, forgetting everything else, Hal devoted all his knowledge of geology to a study of the tunnel wall. Then he turned to his companion.

"The striations in the face of this fault show that the movement was north and south. The continuation of the ore body is north of here."

"That's what your crazy old man thought it runs in the family."

Suddenly Hal was excited. "Come on," he said. "Let's get out of here. I've got a hunch!"

The geologist spent the remainder of the day exploring the slope of Porcupine Ridge north of the tunnel mouth.

It was late evening when he returned to the cabin, and Bellows was busy dishing out a banquet of trout, beans, biscuits, jam, and coffee. Hal stared at it without seeing it.

"Listen," he said to Sir George, "when a vein is moved by the shifting of the earth, it drops 'float' behind it—little bits of ore. Do you get me? . . . Well, I dug down to bed rock here and there along the slope of the ridge north of the tunnel, and for three hundred feet I found bits of silver lead. Beyond three hundred feet the float disappeared. Do you know what that means?"

Sir George flopped a sizzling trout over on its sta'board side. "Doesn't mean a thing to me, young feller."

"It means this: The point where the float ends was the position of the original ore body a few million years ago. I studied the way the strata lie on the ridge, and I'm sure that while this lower half of the ridge was shifting three hundred feet south, the upper half was being upthrust at an angle of about forty degrees. If my geology is right, the continuation of the King's Chance ore body begins three hundred feet from the old tunnel, five hundred feet in—and it should outcrop somewhere near Dad's cabin on the top of Porcupine Ridge!"

Sir George Bellows forgot his frying fish. He walked over toward Hal and peered into his face suspiciously.

"Bughouse!" he exclaimed. "Plumb bughouse. Just as crazy as Klondike ever was! He thought the same thing. Wouldn't surprise me any if you said you were goin' to start in and—"

"That's just what I'm going to do, Sir George. I'm going to work the King's Chance again—and you've got to help! . . . Shhhh—don't refuse—I'm a bad case of insanity and you'd better humor me. Tomorrow I go to Kaslo and blow all the cash I've got on dynamite. We'll work the drift that Dad abandoned up on the ridge. I'm going to move into his old cabin and bunk there till I starve."

The signal flag flew from Cat's Landing on the following morning, and the little steamer *Kokanee* stopped on its way to Kaslo and took a passenger aboard. Hal returned that afternoon with a stock of canned grub, three cases of dynamite, and a busted bankroll.

It took him one day, with Sir George's help, to repair his father's cabin and to bring the dynamite to the top of Porcupine Ridge by means of the old tramway. With the hundred and fifty pounds of explosive stored in the cabin to keep it at the proper temperature, the two-man crew set to work.

For three weeks they labored in the short tunnel at the top of the ridge, drilling by hand and timbering as they progressed. Each evening two dozen sticks of dynamite were fired in the face of the tunnel, which meant that tons of rock must be cleared away every morning. . . . Three weeks, sixty feet—and the formation showed no change. It was still schist. No limestone, and not a trace of silver-lead ore.

And then one evening, alone in the cabin, Hal took inventory. He looked at the remaining supply of the precious dynamite. "Half a case of firecrackers," he murmured. "About five dozen sticks left. That'll take us in another ten feet . . ."

by the wind, added to the speed of its march toward Kootenay Lake.

"Caesar's ghost! She's coming plenty!" Hal dived into the cabin for his clothes. "Skull, we've got to step fast!"

It took Hal less than thirty seconds to throw on the clothes; yet when he again stepped outside, the fire had reached the base of Porcupine Ridge. Ready now for flight, Hal hesitated, looking sadly at his father's cabin.

"Tough break, Dad," he said aloud. "The old shack's a goner. If it weren't for these young trees in the clearing, the fire might go around and miss the cabin. But it—whoa! If I have time I think I can save 'er!"

A few paces from the cabin, twin pines, twenty feet high, stood between it and the approaching destruction. Hal knew that if flame hit these trees the fire would jump to the roof of the cabin. He must get rid of them. He leaped for the ax—then remembered that he'd left it a quarter of a mile away beside a tree he was felling for timber.

"That's that," he said. "No time to get it now." he observed philosophically, "the fishin' ought to be good."

His eyes fell on a deserted gopher hole in the ground between the pines. "I've got it!" he exclaimed. "Firecrackers!"

Inside the cabin again, he opened his knife and, crossing to where the precious dynamite was stored, cut three feet of fuse from his supply. Then he found a blasting cap. Taking a chance, he set his teeth hard into the copper of the cap and crimped it to the short fuse. He seized a stick of dynamite and shoved the knife blade into one end of it. Into the hole thus

made he jammed the blasting cap. "All primed—now for the fun!" he grunted.

Grabbing the broom, and picking up the last case of dynamite, he ran outdoors. The fire was now sweeping up the ridge. As he ran toward the twin pines, bear and two cubs hurried past him. The earth seemed to swarm with rabbits, squirrels, and mice—all heading east toward Kootenay.

Choking from the oncoming smoke, Hal worked furiously. He threw stick after stick of dynamite down the gopher burrow, tamping the charge with the handle of the broom. Finally he set in the primed cartridge and covered it with dirt and rock. With a stone he pounded the dirt down hard.

At the third attempt he succeeded in lighting the fuse. It sputtered. "Here's hoping," he prayed. "Soft ground, but she may work. Now for the lake—that's the only thing that won't be burning in another ten minutes. Where's the dog? Skillibooch!"

A hundred yards away Skillibooch was in heaven. He was chasing rabbits. They came jumping past him in such numbers that he could not make up his mind which cottontail target to aim at. Reluctantly, in response to Hal's shrill whistles, the wire-hair returned to the cabin, grinning his glee.

"Come on, you four-legged fool!" Hal ordered. "If we get out of this we're lucky."

For the first time, then, through the thick smoke, Hal saw that he was already trapped. Over to the left the fire was roaring around the south corner of the ridge. "Good night and good-by!" Hal exclaimed. "I can't take the path to Cat's Landing. It winds around too much—the fire would catch up with me. And I can't go straight through the brush fast enough."

He stopped running and pointed his finger at Skillibooch. "But you can, pup, and you've got to rouse out Sir George. Go find Sir George! Understand?"

The wire-hair looked puzzled. He didn't understand.

"Cats! Sick 'em! Go get 'em! Cats!"

Within three seconds Skillibooch was out of sight, dashing down the slope toward the Bellows mansion.

Running once more, gasping for breath in the acrid smoke, Hal planned desperately. "Feet won't get me out of this, but maybe the old tramway will! I wanted to take a joy ride on 'er—now I've got to."

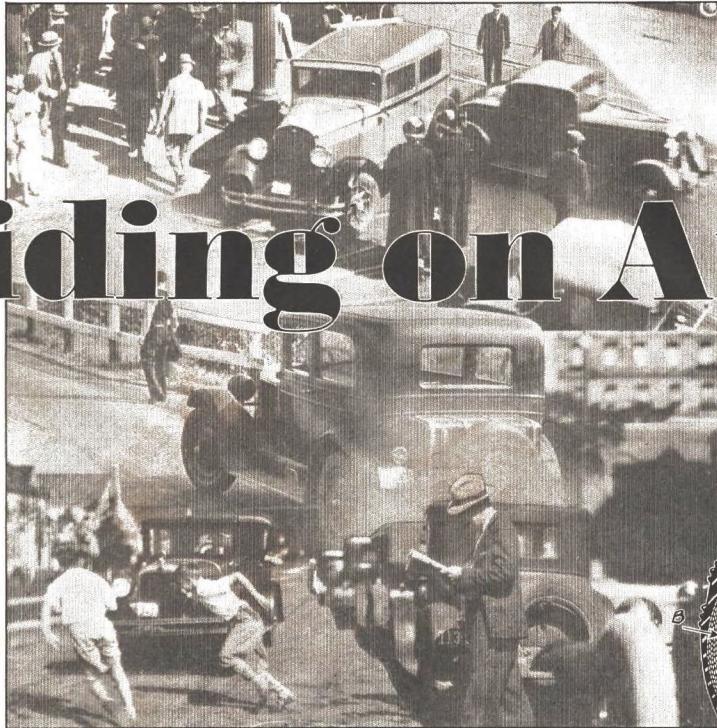
At the train station he released the band brake and climbed into the rusty bucket. Freightied with rock and with his hundred and seventy pounds, the bucket began to move.

(Cont. on page 26)

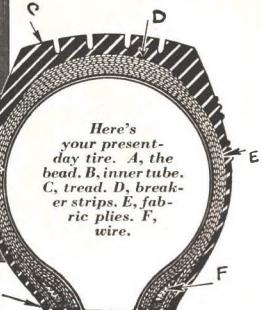


# Riding on Air!

*The place for  
sap is in tires;  
when a sap  
is at the wheel  
BEWARE!*



*Pedestrians cause many accidents on streets and highways. Can you pick out the errors of walkers in this picture?*



**H**AVE you ever had a blow-out at high speed? It's an alarming sensation, especially when it happens to a front wheel. You feel as if a giant's hand had grabbed the car and yanked it to one side. The car may turn into the path of another car, leap off the road, or flip and roll over.

Yet blow-outs are rare, simply because manufacturers have designed tires that will stand increasingly severe tests.

No part of the automobile gets as rough treatment as the tire. All starting, stopping, and braking forces are transmitted to the road through tire friction. The tire is pushed out of shape when the wheel turns. It is forced into irregular form when passing over stones and street car tracks. Yet, after every shock, it springs back into shape.

The driver takes all this for granted, and on top of it demands slow and even wear, non-skid qualities, quiet running, and easy riding and steering.

Here's how the modern tire is designed to meet your demands.

First of all there is the inner tube, strong enough to hold its volume of compressed air. It's the air itself that acts as the shock absorber.

The inner tube is enclosed in an outer casing, rugged enough to withstand gravel, rock, and nails. Yet the casing must not be so rigid as to lessen the resiliency of the inner tube. No easy job, combining ruggedness and resiliency!

The casing is made of several thicknesses or plies. These plies are rubberized

cotton fabric, cut at an angle and set at right angles to one another so that they interlock and reinforce each other. Each ply is separated from the next by a cushion of rubber. It's this clever combination of rubber and fabric that gives strength, yet preserves the resiliency. The cotton fabric plies, called the "carras," give strength. The rubber layers supply the necessary flexibility and protect the fabric plies from chafing each other.

The breaker strip shown in the drawing, atop the

last of the plies, distributes the shocks of the road along the tire, so that the blow isn't concentrated at one spot.

The bead, which contains strong wire to reinforce the tire where it makes contact with the wheel rim, prevents the tire from blowing off the wheel.

On top of all this is the heavy tread, rugged, tough and springy, which may be grooved or ribbed in a number of ways.

As the tire rolls along the ground its center portion first makes contact with the road. Then, under the pressure of increasing speed, the shoulders are forced downwards and outwards with a sideways or "scruffing" motion. To withstand this wear, a very heavy block of rubber is placed at the shoulder, providing the maximum amount of rubber at the point of maximum wear.

Motorists want tires that resist skidding. Designers have discovered that tires with the tread broken up at the edges are least likely to skid.

Another way to get non-skid qualities is through the low pressure, or balloon, tire. This type gives a wider tread on the pavement, with the pressure on the edges of the tire instead of on the center.

Once, car owners preferred the tire that trapped small quantities of air under it as it rolled along the road and gave out a whining noise at high speeds. Today noisy tires are considered a nuisance. In the modern tire, the surface is so uniform and so carefully constructed that tire noise is a thing of the past.

The pneumatic tire de-  
(Continued on page 41)

**by Dr. Alexander Klemin**

Director, Daniel Guggenheim School of Aeronautics, New York University

## Are Young Men Good Drivers?

**W**E'RE enthusiastic about high-school and college-age men. So much so that we chat with them as often as we can, and even inflict our speeches upon them when we're asked to. Young men are alert, up-to-date, unhampered by tradition and discouragement.

But our enthusiasm for student-age Americans shouldn't prevent us from squarely facing such questions as the above.

In one sense, young men **ARE** good drivers—better than older men. Their eyes are keener, their muscles quicker, and their handling of autos perhaps more skillful.

Insurance companies and highway commissions, however, have an unpleasant habit of gathering facts in great quantity, and the facts paint the other side of the story.

A short study of the facts gathered by the Hartford Insurance Company showed that licensed drivers under 20 years old are involved in just twice as many accidents as drivers of 40 and over. In actual figures, teen-age drivers out of every thousand annually get into accidents.

Drivers under 30 aren't much better. Their crash rate is 36 out of a thousand.

At 30, the age of discretion sets in and the accident rate drops to 7 per thousand. Forty might be called the age of wise caution—there are only 20 pile-ups per thousand. And over 50, the rate drops to 18 per thousand.

These rather unpleasant facts are explainable. Boys

are likely to be more competitive, more sure of themselves, more indifferent to consequence.

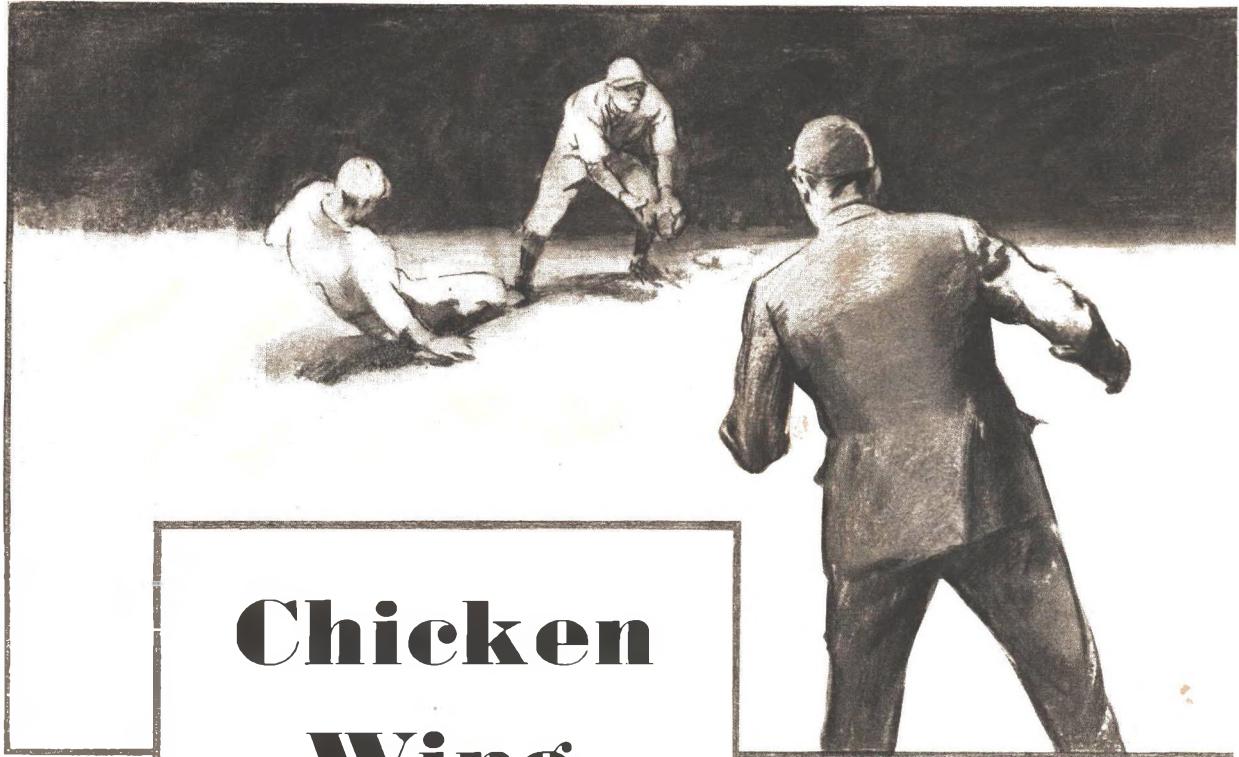
Yet the solution isn't to prohibit boys from driving. To reduce the accident rate materially, we'd have to prohibit driving everyone under 30, and that's obviously unworkable.

The best method, it seems to us, is to present to the student-age driver facts that will appeal to his common sense. This series of articles, explaining the safety features embodied in the modern automobile, is an attempt to do just that.

If you **KNOW** that 95 per cent of all accidents are due not to car failure but to driver failure, you can do something about it. If you **KNOW** that most accidents occur during the rush hours from 4:30 to 6:30, the time when the sun is highest, in July, and August, are especially dangerous because of heavy traffic, that there's an accident in this country every 46 seconds, that highway accidents are more often fatal than city accidents because of higher speeds, then you can get out forewarned.

If you **KNOW** that the teenage crash rate is twice the crash rate of men over 40, then you can face the issue and do your part to improve the record of young drivers.

We'd like to extend especial congratulations to Superintendents of Schools who have high school students study safe driving and traffic regulations as a regular classroom project. That's the best way to present to young drivers the facts that will help them to do their share to make our highways safe.



*Without warning Michael took a quick*

# Chicken Wing

*A Story of Sizzling*

Illustrated

by

DUDLEY  
GLOYNE  
SUMMERS

by

William Heyliger

SOMEBODY once asked Jim Doak what he was and he said he was a gambler. He didn't mean it that way, exactly—and yet he did. For Jim Doak had been the Vinewood coach for ten years, and coaching is the biggest gamble in the world. All the coach is sure of is that every tomorrow is a mystery.

Once Jim Doak was known as "Graveyard," not because he was a graveyard sort of man but because he kept his own counsel behind silent lips and made his own decisions from what he observed. But of late he's become an asker of questions, a man who wants to know. They have taken to calling him "Tell-me" Doak. And nobody but Tubby Rice—and Tubby isn't the kind to broadcast things—knows it was the mad gamble of coaching a baseball team and the madder impossibility of a pitcher like Michael Lann that changed Doak from a man of few words into a man of many.

Michael Lann came to Vinewood just about the time Jim Doak began turning over blades of grass and looking under them for pitchers. It was still six months to baseball weather, but Doak saw the handwriting on the wall. Turner, last year's star,

was gone. Bradley was an irresponsible madcap who could pitch when he wanted to, and Handel and Votee were less than average. Doak knew that if Vinewood didn't find at least one dependable pitcher baseball was probably going to blow some sour notes.

It was Tubby Rice, catcher and captain, who found Lann. Checking over the new Vinewood men, the captain found Michael's card—junior by transfer from a school in the East, baseball, 42 Hyde. The captain dropped the card and went out of the school office and presently knocked on the door of Room 42 in Hyde Hall.

"Your name Lann? Welcome to Vinewood. I'm Rice, baseball captain. What position do you play?"

"I try to pitch," Michael Lann said. Tubby warmed to him because of his direct eyes, his slow smile, and the thick pitching power of his shoulders and chest. "You come down to the field behind the science building," Tubby grinned, "and keep right on trying. Tomorrow at four."

Next day Michael Lann appeared. Jim Doak was tied up with football practice and Tubby ran the fall baseball workouts alone. But along about the

middle of the next week the captain sought out Doak in his office.

"Colonel," he said mildly, "could you spare a guy ten or fifteen minutes?" To Tubby every man he liked was "Colonel."

Doak, up to his eyes in trouble trying to build a fast charging line, made a resigned gesture. "Didn't I tell you not to bother me with baseball unless it was important?"

"But this is important, Colonel. I think I've found us a pitcher."

"What kind of pitcher?" Doak was suddenly interested.

"Darned if I know. Never saw anything like him. He has a swing that gives you the horrors and yet he has something. Sometimes the ball comes to you before you think it should and sometimes you think it should be in your glove and it isn't. Got ten minutes, Colonel?"

"Friday," said Jim Doak. The football team was playing its first game Saturday and Friday's practice would be short.

Baseball veterans like Stacy, first baseman, and Appleton, shortstop, gazed wide-eyed when Doak came to the field behind the science building on Friday. The coach stood behind Tubby. The captain whispered, "The middle one," and Michael Lann threw.

Doak had seen some queer things in baseball, but nothing quite like this. Michael Lann threw with a motion that was painfully cramped and awkward. His arm, like a rod permanently bent in the middle, never stretched out and completely followed through. Doak thought of a chicken's V-shaped, ungainly wing. No wonder Lann's delivery had given him the horrors.

The captain's face was rapt. "Take the mitt, Colonel, and catch a few."

Doak took the mitt dubiously. After a few pitches his face was even more puzzled. Tubby was right—Lann did have a queer sort of timing that broke the



*step toward first and threw. The arm was a darting snake. The ball was a bullet aimed down around Stacy's knees.*

## Baseball Action and a Pitcher With a Cracked Arm

ball in unexpectedly early or unexpectedly late. Doak, taking each pitch, watched the wind-up closely. A stiff stretch, a cramped forward swing, a crippled, chicken-wing of an arm halting suddenly as though invisible wires held it back. He took off the glove and tossed it back to the captain. His face was inscrutable.

Presently the practice ended. Players drifted away from the field in groups. Tubby asked a quick question:

"What do you think of him, Colonel?"

Doak shook his head. "I'm sorry, Tubby," he said gently.

The captain's face fell. "I thought that one trick he has—"

"He has something there," Doak admitted; "something good. If he only had an arm—"

"What do you mean, arm?"

"Do you notice that he never gets speed? Different timing, but always a slow ball. His elbow was probably broken at some time and badly set. It leaves him with a weak arm."

"There's such a thing as strengthening a weak arm, isn't there?" Tubby asked after a silence.

"Sometimes. Depends on why it's weak. We'll let him work on the pulleys over the winter."

"Then—" the captain began eagerly.

Doak nodded. "We'll give him every chance."

But his face said plainly that the chances were slim. Doak's intentions were good. He laid out gym work for Michael Lann and intended to keep in touch with him. But a disastrous football season and a worse basketball season crowded the recruit from his mind. A week after the last basketball game had been played *The Vineyard*, the school paper, ran three stabbing lines in a box on the first page:

WHITHER?

Football .....Ouch!  
Basketball .....Help!  
Baseball .....What?

Jim Doak read the slap twice. He knew that it was the work of an overenthusiastic editor, but he knew, too, the fate that can overtake a coach when the campus begins to ride him. And he knew how thin his chance might be in baseball.

The candidates who crowded into the gym for indoor practice failed to brighten his sky. Twelve hurlers were on the pitching line, and Bradley, his one good pitcher, was clowning instead of working. The coach went down the line in grim silence. At the end was Michael Lann.

Lann was trying. Trying with a single-minded, absorbed intentness. After Bradley, Michael Lann filled Doak with a warm glow. And yet there was the same cramped and shortened swing, the same chicken-wing delivery. The glow faded and was gone. A man with only a slow ball, after all, could hardly be called a pitcher.

A week later, in the coach's office, the first cut was made. At Vinewood the coaching staff passed responsibility on to the captains, and so Tubby sat in on the cut. They came to the pitchers.

"McNair?" Doak's pen hovered over the list on his desk.

Tubby nodded. "Out."

"Ostermann?"

"Out. He'd give at least one base on balls an inning."

"Lann?" The pen was ready to check.

"I don't know. We don't want to make any mistakes."

Doak, with the irresponsible Bradley still on his mind, felt a sting of irritation. He laid down the pen. "What mistake?"

"Listen, Colonel. If the ball he throws has a catcher guessing what will it do to a batter?"

Doak shook his head impatiently. "What can any cracked-arm pitcher do to a batter?"

"I caught him last fall and you caught him last fall," Tubby said obstinately. "He has something." "Not much, I'm afraid. Any pitcher with a cracked arm is out."

Tubby, opening those tight lips to speak, closed them and looked at the floor. "Colonel," he began, "I—"

Suddenly Doak saw how earnest Tubby was. Mis- taken sympathy, perhaps. Or a blind sort of faith in a miracle that couldn't happen.

"We'll leave Lann on," he conceded reluctantly.

The team went outdoors. The batting cage was wheeled into position and eager players crowded up to hit. Bradley, strolling out to the mound, set his cap jauntily and sent up a fast one. Stacy, the first baseman, met it flush and lined it out.

Doak, chewing a blade of grass, spat it from his mouth and stood motionless. Fifteen minutes later a grim hand waved Bradley off and sent Handel in. Ten minutes later Handel was gone and Votee was throwing them up. And still the crack of his hits rose clear and sharp.



When the practice was at an end, Doak walked slowly back to the gym with Tubby. "What did they have?" he asked.

Tubby shrugged. "Nothing," he replied.

Doak shook his head helplessly. What a picnic the editors of *The Vineyard* were going to have if they were really after him!

"Colonel," Tubby said, "I've a hunch that if you stick Mike in there—"

"Tomorrow," said Doak abruptly. Oh, for a pitcher! But it wouldn't be Lann. Not with a stiffened and badly set elbow.

And yet, as he knelt on one knee outside the foul line and watched Michael go into action for the first time, he dared to hope. One pitcher with something steady and dependable—just one! The chicken-wing of an arm flapped, a batter swung, and the ball arched over short and fell into short left. Again the arm creaked on a tight hinge, and a hit shot past the second baseman.

Doak stood up. Tubby walked up the fairway and talked earnestly to Michael. They took their places and Michael threw—and the ball was banged into short right.

The bombardment continued until Tubby's rosy face had gone a little pale. At last Doak called a halt. A possible pitcher had died in a barrage of hits. He was keenly sorry for Michael Lann, taking his beating with calm courage, but he was sorrier still for Tubby Rice. He had known more than once, in his own years of coaching, the distress of a faith destroyed.

Tubby came to him the moment the practice ended. "You can forget today, Colonel. They caught him out of step."

"I'm not so sure of that," Doak said.

"I am." Tubby's voice was hoarse. "I was watching those balls come to me—"

"Very few of them reached you," Doak pointed out.

Tubby winced. "But I could see what they carried. Nothing. His timing was gone. When he has that queer sort of timing working—"

"Perhaps," Doak said gently, "he never had it working. Perhaps we were both swayed by sympathy and saw what wasn't there."

Suddenly Tubby's eyes grew hard. "Were you oozing with sympathy a week ago when you wanted to drop him?"

Doak had known of cases like this—a captain sold on a player and blind to facts. Sometimes it led to friction, even to open war. A pitching staff shot to pieces was bad enough, but war with a captain—

"The season's young yet," he said. "We'll see how things develop."

But he made the gesture only as a temporary peace offering, and he knew that Tubby knew it. They walked back to the gym in silence.

In his office, with his door half-closed, Doak looked for a ray of light. Four pitchers—Bradley, Handel, Votee, and Lann—and every one of them taking it on the chin. He put on his hat and walked out.

Ahead of him in the soft, waning light of the spring day a figure walked toward the campus. Doak recognized the heavy shoulders of Lann. Out on the grass in front of a dormitory a group of students threw a baseball around. The ball went wide and came bounding down the walk. Michael Lann stooped, took the ball, and threw it back toward the group in a long, lazy arc.

Doak's eyes widened. He cried a sudden, "Lann! Lann!" and hurried forward. Michael stood and waited for

him. And the coach who sought a pitcher and the pitcher who could not pitch walked on slowly together.

An hour later Doak came to the captain's room and straddled a chair. "Tubby, I discovered something tonight. There's nothing wrong with Michael Lann's arm."

Tubby's eyes grew narrow with suspicion. "You said—"

"I know—I said it had been broken and badly set. I'm afraid I took it for granted. A little while ago I saw him pick up a baseball and throw it. He made a full-arm throw."

Tubby was staring. "What about his crazy pitching throw? Why does he do it?"

"He figured it out for himself. He saw some motion pictures last year—slow motion pictures of pitching. He figured that by using a quarter or half swing he could fool the batter. The batter'd never be quite sure just when the arm would let the ball go. It takes strength. He has it. But—it means a slow ball."

"What difference does that make?" Tubby cried in a glow. "If they can't hit—"

"He wasn't in his stride that day, Colonel."

"We'll give him another shot at them," Doak said.

But Doak didn't fool himself. Michael Lann was a pitcher without speed. There was no fast ball with which to screen his slow ball. Furthermore he had thought out the reason behind Lann's queer delivery and had reached a decision. Why had the pitcher changed his style? Because the old style, whatever it was, had got him nothing. Why did he concentrate on a slow ball? Because he had no speed. With runners on base, where would Lann be without speed? They'd run wild. Doak shook his head. He'd give Tubby two or three days in which to get Michael ready and then they'd see.

But he didn't wait two or three days. The next afternoon he sent Votee out first. The left-hander, drunkenly wild, hit the first three men. Doak waved him off. Handel, following, lost control and almost beamed a batter. After that he started throwing the ball so wide of the plate that there was no chance of hitting it. Another wave of the hand and Handel was gone. Bradley, grinning, reached for his glove.

"What's the joke?" Doak snapped.

The grin widened. "Did you see them ducking that ball? When our boys have a bad day it certainly is bad!"

"Suppose they're needed on the day they go bad—" Doak began.

"Don't worry about me," Bradley laughed. "I can't get hot and bothered about practice. I'll be ready when the time comes."

It looked, for a minute, as though Bradley might be ready today. The first two men hit easy chances into the dirt. But the next pitch was sent screaming into left, and another ball smoked along the third base line. The crash of hits became a staccato cannonade.

Doak groaned. Two pitchers who couldn't find the range and a clown being cut to ribbons—a clown who didn't realize that your day-to-day performance was what formed you into the finished article. Bradley pitched again. Appleton, the shortstop, took a toe hold and sent a terrifically long drive into deep center. The pitcher, turning to watch the flight of the ball, laughed.

That laugh finished Doak. He walked out upon the diamond. "Still taking it as a joke, Brad?"

Bradley looked pained. "This isn't a game, Coach."

"Suppose it were?"

"You'd have seen something."

Doak grunted. He raised his hand to order the batting cage away, when he caught Tubby's pleading eyes.

"Lann," he called. "Pick it up."

He walked toward the bench, not thinking particularly of Lann but of a taunting line from *The Vineyard*, "Baseball—what?" His private record book lay upon the bench. He picked it up and marked the day's results.

As his pen moved it dawned on him that the ball field was unnaturally quiet, that the artillery of hits had ceased. He put down the book. Michael Lann's body moved, bent caricature of a pitching arm flapped into motion, a ball loafed toward the plate, and Stacy, Vinewood's ace hitter, swung and missed.

Doak stood up. The minutes passed as he watched from in front of the bench. Grounders dribbled to the infield; flies popped soggily into the air. Finally he signaled and they took the batting cage away. Tubby, without waiting to take off his mitt, came charging toward him.

"What do you think of it now, Colonel?"

"Tell you later," said Doak.

An hour later, when practice had ended, he sat on the bench and Tubby sat with him.

"Remember the games Brad pitched last year against Tecumseh and Pratt?" the coach asked.

Tubby nodded.

"When Brad's good, when he settles down to serious work—"

Tubby shifted his position. "Colonel, just what's this got to do with Mike?"

"If I use Brad I gamble on his pitching a real game," Doak said. "If he does, we'll win. If I use Lann I gamble on a naked slow ball. He did well today, but could he hold a team off the bases for nine innings? I say off the bases. Know what would happen if they got on? They'd run wild."

Tubby sat like stone. "Why can't we start working him on a fast ball?"

"He's got a slow-ball change of pace; probably he has his own reasons for avoiding a fast ball. Tell him he needs it and a lot of old fears may be aroused. That would finish him."

Tubby stood up. "It looks to me, Coach," he (Continued on page 33)



Doak shook his head impatiently. "What can any cracked-arm pitcher do to a batter?"

# The Golden Clue

by Laurie York Erskine



*In the breathless silence Renfrew strode to the treasure. He ran his fingers over one ingot gently.*

**R**ENFREW stood in the superintendent's office at Mounted Police headquarters in Vancouver, studying the telegram the superintendent had handed him. He looked up with a glint in his gray eyes.

"Tomorrow morning," he said softly, "a sandy-haired detective disguised in walking tweeds will descend on Brewster Landing."

The superintendent grinned at the blond special officer; then sobered.

"You're sure this fellow who put in at Brewster Landing is your man?"

Renfrew nodded. For a week he had been checking the trail of the daring lone robber who had held up a Trans-Canada Express Company truck down by the Vancouver docks and calmly transferred to his own car a shipment of Alaskan gold ingots worth \$20,000. Now he was ready to act毫不犹豫地 on this telegram from an unknown Irwin Brewster. He read it once more.

"Man giving name of Faulkner and answering description of gold bandit stopped at Brewster Landing Sunday for fuel stop proceeded north in cabin cruiser motor boat stop and following him by land stop."

"This wire was sent from Port Glendon," Renfrew reflected, "and that's two hundred miles up the coast. Brewster Landing's near there, isn't it?"

"Yes. It's a private lumber dock about forty miles north of Port Glendon."

"Then I'll arrange to fly up tomorrow morning—this storm should be over by then. If anything turns

up here on the case, Sergeant Brass can handle it."

Renfrew left the superintendent's office and gathered with Sergeant Brass, who since the night of the holdup, a week before, had been acting as Renfrew's right-hand man.

"This wire sounds like a good lead," said the sergeant.

Renfrew nodded. "Yes. The truck driver's description of the bandit's cauliflower ear and three-fingered left hand marks him pretty plainly. Brewster could hardly be wrong in that. And it's certainly probable that the fellow escaped in a motor boat. We've watched every ship, road, and railway line. Taking over some small craft was the only way out for Forgan."

"You mean Faulkner."

Renfrew grinned. "His real name's Bernard Forgan."

"You got it? How?"

"Through his clumsiness in the holdup. After he'd tied up the driver, he broke into the truck and

hurled things around to find the gold, and he smashed a bottle of marking ink in the 'office,' behind the driver's seat, and left finger prints galore. I broadcast 'em and got back his identification this morning. He's wanted in several states—and in Alaska."

"Alaska, huh? So he knows the North and he's skipping up there."

"That's it. And here—" Renfrew handed the sergeant a letter—"that lists the officers of the good ship *Beauregard*, which carried the gold. And I've sent for a list of all the mining company's employees who knew the gold was being shipped, and a list of all employees at the manufacturing jewelers who knew their firm was receiving it. We'll check the whole crowd."

"You believe Forgan was tipped off about the shipment?"

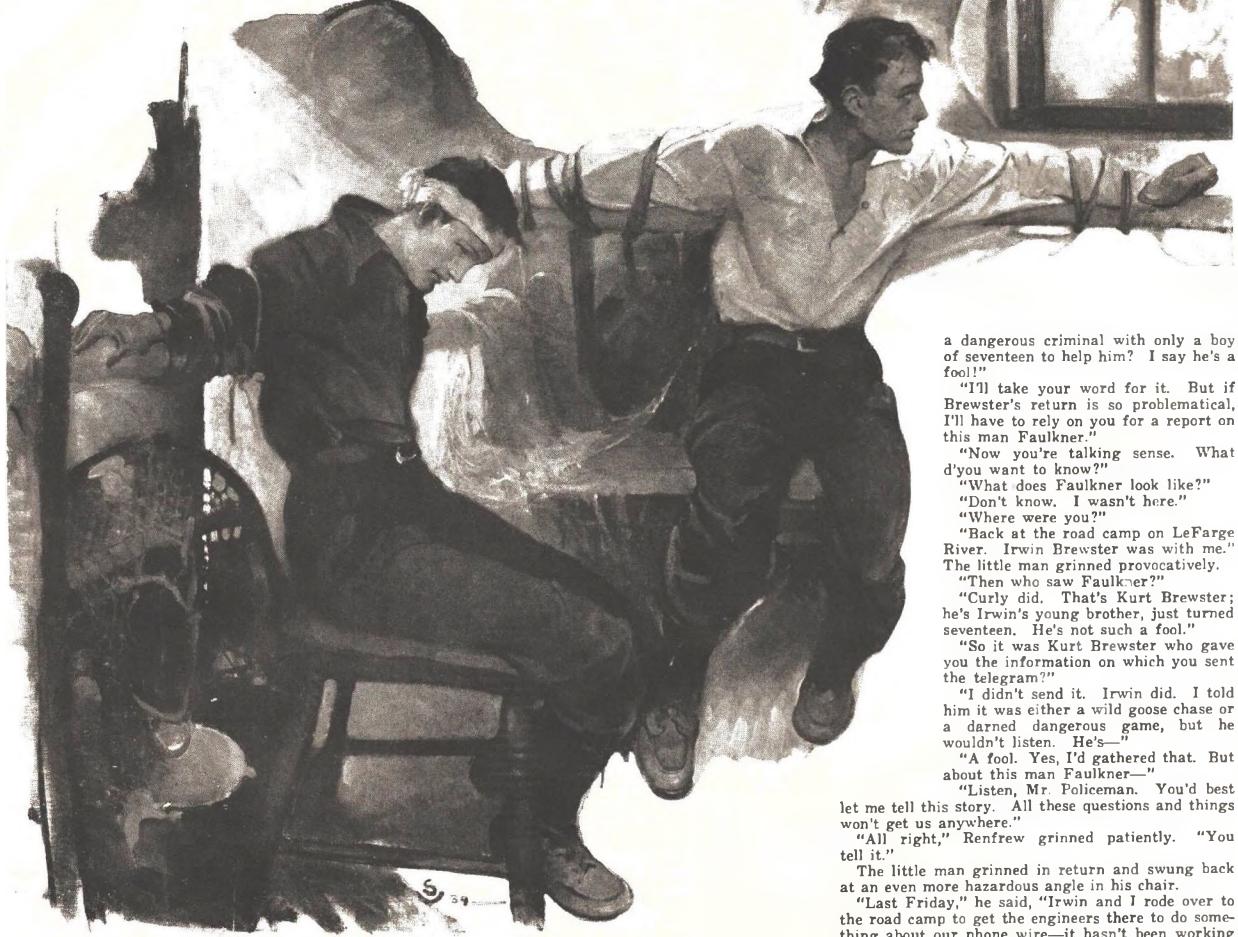
"Yes. He must have known when it was coming. You watch for those lists, won't you? I'm flying up to Brewster Landing tomorrow."

"You'll need to fly! Forgan left Brewster Land-

Illustrated by

FRANK E. SCHOONOVER

*Curly twisted his head sideways to peer through the dirty window into the big room of the cabin. He must watch every movement in there.*



ing yesterday. He'll have thirty-six hours' start, and all those wooded coastal waterways to hide in." "He won't have traveled far through this storm. I'll find him—if the weather clears so I can get off."

The weather did clear, and surprisingly early the following morning an amphibian airplane glided down to alight upon the placid little bay that sheltered Brewster Landing.

The mountain-shadowed settlement consisted principally of a huge, rambling lumber mill, warehouses, workmen's cabins, and administration buildings. A great dock, burdened with piles of lumber, stretched out into the bay, with a flotilla of small craft lying at anchor on one side. The amphibian taxied over to a float beside the dock and Renfrew, clad in walking clothes, leaped out to find his way ashore.

It was apparently a season of inactivity, but from a lone workman on the dock Renfrew learned that the general manager of the mill was in his office at the dockhead.

"What's his name?" asked Renfrew. "Mr. Irwin Brewster?" "No," said the workman. "He's away. The manager's Garrity McCune, and you'll find him an odd number, mister." He stared after Renfrew curiously. Renfrew reached the dockhead and tapped on the

glass of the office door.

"Look out—you'll break it!" cried a high-pitched voice from within. "Come inside if you want to knock!"

Renfrew entered and found himself confronted in the cupboard-sized office by a little man who at first glance seemed a complete sphere, with a smaller sphere, thatched with white hair, for a head, and two short, stout legs that bent grudgingly at the knee as their possessor swung back at a fearful angle in an old pivot desk chair. The round face of this little man wore a look of bronzed, twinkling good humor, but Renfrew noticed that his lips were thin and grim.

"You're a policeman!" said the little man instantly. "Came up in answer to young Brewster's message, I suppose."

Renfrew nodded. "Who is Irwin Brewster?" he asked.

"The Old Man's nephew. Thomas K. Brewster owns this outfit, and Irwin's his nephew. Fine boy. A fool and conceited—but you can't have everything."

"I don't want everything," grinned Renfrew, congenially. "If you'll just tell me where Brewster is now—"

"Dead, probably!" snapped Garrity McCune. "Why shouldn't he be—going off on a wild goose chase after

a dangerous criminal with only a boy of seventeen to help him? I say he's a fool!"

"I'll take your word for it. But if Brewster's return is so problematical, I'll have to rely on you for a report on this man Faulkner."

"Now you're talking sense. What d'you want to know?"

"What does Faulkner look like?"

"Don't know. I wasn't here."

"Where were you?"

"Back at the road camp on LeFarge River. Irwin Brewster was with me." The little man grinned provocatively.

"Then who saw Faulkner?"

"Curly did. That's Kurt Brewster; he's Irwin's young brother, just turned seventeen. He's not such a fool."

"So it was Kurt Brewster who gave you the information on which you sent the telegram?"

"I didn't send it. Irwin did. I told him it was either a wild goose chase or a darned dangerous game, but he wouldn't listen. He's—"

"A fool. Yes, I'd gathered that. But about this man Faulkner—"

"Listen, Mr. Policeman. You'd best let me tell this story. All these questions and things won't get us anywhere."

"All right," Renfrew grinned patiently. "You tell it."

The little man grinned in return and swung back at an even more hazardous angle in his chair.

"Last Friday," he said, "Irwin and I rode over to the road camp to get the engineers there to do something about our phone wire—it hasn't been working for ten days now. While we were there, Corporal Barnaby of the Mounted came along, and he told us about this bum-eared, three-fingered man you're looking for. We didn't get back here till Sunday night and it was then that Curly told us about it." He paused reflectively.

"Told you about it," prompted Renfrew.

"Sure. This Faulkner had come in around noon, and asked could he send a telegram from here. No? Well, then, could he telephone? And it wasn't until after he'd found out we couldn't telephone or wire out of here, Curly noticed, that he gave any name or put his craft in for fuel. See what that means?"

He and Renfrew stared at each other soberly.

"I see," said Renfrew. "Go on."

"Well, then Faulkner asked for twenty gallons of gasoline. He had a battered gray cabin cruiser about fifty feet long, Curly said. The kind they use a lot for rum running down the coast. And he told Curly his name was Faulkner. Then he bought some stores and headed north up the straits."

"How much food did he put in?"

"That's a good question, mister. He put in only enough food for about a three-day trip. That and—the little man's thin lips drew into a tight line—"and some ammunition," he finished slowly and significantly.

"Well?" inquired Renfrew.

"Don't you see what that means?" demanded the little man. "He's armed! He'll fight! And those

two crazy kids have gone out after him as if they were hunting squirrels—and they took the truck out before dawn yesterday—and they haven't come back!"

A light came into Renfrew's eyes as he realized how anxiety tore at the bantering, grim-lipped little man. Then he arose briskly.

"The fellow would have had to put in during the storm yesterday!" he cried. "Where could he find shelter?"

"Anywhere! There's islands, coves, inlets all up the coast. I told them not to go but Irwin, the crazy kid, sends Bronson down to Glendon with the message and runs off with the kid in a truck. He's constable, and he saw it as his duty, see? And Faulkner may have met up with 'em anywhere along the shore."

"No," said Renfrew. "Not anywhere. Forgan—that's Faulkner's real name—was aiming at some place not too far away or he'd have laid in more stores. What's the nearest port or village?"

"Nearest place is Trondheim's trading post up at Shirtsleeve Inlet. That's twelve miles north."

"What was that name?" cried Renfrew in what seemed unreasonable excitement.

"Trondheim. Jacob and Gunnar Trondheim have a trading store there. There was another brother, but he went outside. They've got an old fishing schooner, and trade along the coast."

"Look here!" Renfrew spoke eagerly. "How about that little motor launch I saw by the dock? Is it fast? I must travel quickly. There's a wind rising."

"Use your flying machine. That's quicker."

"No. It would warn them. Is the launch fast?"

"It'll do twenty knots."

"Good. I wish we could get to a justice."

"Why?"

"I want a search warrant."

"I can give you one. I'm justice of the peace."

"Good. Make me out a warrant to search the Trondheim place."

The little man stared.

"Quick! I must be there before the wind rises!"

Garrison McCune swung around and ransacked his desk for a form.

CURLY sat on the fish box with his back pressed against the inner wall of the lean-to woodshed and twisted his head sidewise to peer through the dirty window into the big room of the cabin. Since his arms were bound along a pole that ran across the wall, this caused him acute discomfort. But if he and Irwin were going to escape, he must watch every movement of the men in the big room.

A heavy log wall separated the woodshed from the room into which Curly peered, but the connecting door was thin, and through it Curly could hear the voices of their captors; could hear, from time to time, a muffled groan from a room beyond. When Curly heard any of the actual words of the Trondheim brothers, he strained around and relayed them in a whisper to Irwin, who sat slumped on a broken chair, his battered, blood-clotted head sagging forward.

Curly had been able to report nothing encouraging. In all the long twenty-eight hours they had been held there, he had heard their captors talk of little except whether or not he and Irwin were to be allowed to live.

He still couldn't understand things. How were the Troldemans mixed up in this? He and Irwin had seen Faulkner's boat in the cove, and had come to the Trondheim cabin to make inquiries; and Jake, the lean, savage one, had suddenly slugged Irwin from behind. There had been a fight, five against two, and he and Irwin had been trussed up in the shed. Yet these men were no friends of Faulkner's. Curly was convinced that the man who had groaned so hideously in the night was the man they had come to arrest. The Troldemans had beaten him, or wounded him—and now, if it weren't for the fears of Gunnar Trondheim, they would put him and Irwin out of the way...

"What are they saying?" whispered Irwin.

"They're in a hurry to get away," whispered Curly. "Jake and the two Indians are rustling things out to the schooner. Steve wants to leave everything, but Gunnar won't do it. He says they can't sail anyway until the wind comes up. Hello!"

"What is it?" Irwin brightened as he saw Curly's face light up.

"There's a stranger come in!" Then Curly's face fell, and he groaned: "But he's walking right into it, just as we did!" Yet somehow the sight of the sandy-haired young man who had entered so calmly gave him new courage.

"Good morning," said the stranger quietly.

Gunnar Trondheim, massive in his chair at the table, his square, hard face bronzed under thick blond hair, stared up at the newcomer with blank,

unwavering blue eyes. Steve Trondheim, softer, darker, bulkier, and yet strangely dapper in his blue clothes and curled mustache, arose and stepped forward, menacingly, Curly thought. The Indian, Rat-fat, lounging at one side, fastened beady eyes upon the young man's back.

"What d'yer want?" rumbled Gunnar Trondheim.

"I was out in my launch looking for some friends," said the young man, and Curly was aware of great alertness under his easy manner. "My launch broke down and I sculled her in and walked up to ask you some questions."

"Well?" growled Steve Trondheim.

"I thought you might have seen my friends," said the young man. "They were traveling up the coast in a motor truck. They should have returned to Brewster Landing by now." Curly saw his glance fall to the floor, and knew that it was fixed there for a moment, searching. "Did they stop here?" asked the young man, looking up again.

"No," said Gunnar Trondheim, "they have not been here."

Once more the young man glanced down, and Curly thrilled with a comprehension of what it was that held his gaze. It was the stain upon the floor where Irwin had lain, with bleeding head, after the uneven battle. The sense of imminent conflict surged through Curly's veins as he realized that this man was a detective—that he saw that stain and could read its meaning.

A prolonged groan, ragged and agonized, sounded from the inner room. The young man looked up from the floor.

"I think my friends are here!" he said in a voice that clattered like iron on stone.

Gunnar Trondheim dropped one hand beneath the table. Steve stepped back as if seeking room for movement. The Indian straightened—and Curly gasped as he saw the gaunt figure of Jake appear in the doorway behind the stranger, one hand fumbling at a hip pocket. For a long, insufferable moment everyone seemed frozen in those positions, and to Curly the stranger appeared unconscious of his peril. Then, with a crisp precision that had the effect of great suddenness, the stranger threw open the breast of his coat and half turned toward Jake, whom Curly would have sworn he had not seen. Just as abruptly, he turned his back on Jake again and with his coat still held back, spoke to Gunnar Trondheim with the queer effect of using his voice as a weapon of great strength and deadly

potency. "I'm an officer of the Mounted Police," he said. "Put that gun on the table, please!"

Still staring blankly up at him, Gunnar slowly brought out the gun and laid it on the table.

"Come inside!" said Renfrew—and Jake sidled in to stand beside Steve, while Curly watched almost unbelieving.

"I have a warrant to search these premises," said Renfrew. "Or will you produce the men I want?"

"Who is it you want?" Steve Trondheim asked smoothly.

"No!" Big Gunnar Trondheim rose up suddenly.

"The gun," suggested Renfrew quietly, and Gunnar stepped back away from the table.

"I think we have made a mistake," said Gunnar Trondheim. "Or there is some misunderstanding. Be quiet, Steve! We have no difference with the police."

"No," said Steve, watching his brother narrowly. "A man gets foolish when he is afraid," said Gunnar bluntly. "He is (Continued on page 37)

*He seemed hardly to notice the Troldemans while the Indians tugged at the rude winch that turned the anchor chain.*



# The OXYGEN

by

Lawrence M. Guyer

LIEUTENANT JIMMY WALLACE leaned over the cockpit of his climbing P-12 and flashed an odd gesture at Ace Lindsay, the wing man on his left. His hand dropped over the fuselage where only Ace Lindsay could see it and his head nodded swiftly toward the third pilot in their three-ship pursuit formation.

The fingers were extended and joined, and the thumb was pointed down. Thumbs down! Jimmy Wallace was conveying to Ace Lindsay his opinion of Keating, the other pilot.

But if he expected an agreement, he was wrong. Over Lindsay's face came the usual broad grin, a shrug of the broad shoulders—and that was all.

"Oh, I say," Lindsay's smile seemed to convey. "It isn't Keating's fault. He's a right enough egg!"

Very few things disturbed the amiable Lindsay with his lazy, English drawl. But Jimmy was unable to accept with Lindsay's calm, Keating's assignment to his element.

Over in another section of the sky, in another element, in another ship, was "Rud" McAllister, whose comradeship with Lindsay and Wallace was an Air Corps byword. Wallace and Lindsay and McAllister! They had trained together, schooled together, and won their wings together. They talked alike, thought alike, dressed alike. And they had always flown in an element of their own.

Then, like a stunning blow, had come an official order sending McAllister, only the day before, to another element. His place had been taken by "Ham" Keating, the worst "ham pilot" in the squadron. Ham Keating, whose wobbly controls were another Air Corps byword!

Jimmy Wallace glared again at his new wing man. Why did the authorities have to make the change on the one day of the year that counted most—the one day of the training season that took the squadron to high altitudes? Thirty thousand feet! The dangerous oxygen zone, where controls go mushy in spite of skill, and pilot and ship cannot exist without artificial aids! The crash zone of the skies! Even Ace Lindsay ought to have resented an outrage like that!

For an instant Jimmy even glared balefully at the Ace, himself. Then, quietly, as his eye caught the altimeter reading, he grinned, and sat eagerly erect in the cockpit.

They had reached 18,000 feet, and they were going to thirty! Three miles already, straight up into the sky, and still they climbed! The Wasp motors mawed, raucously. Gradually, but steadily, their automatic superchargers were taking up the burden of the rarefied air. There was a singing whine in the wires, and a fresh, golden gleam on the fabric of the wings.

Jimmy's grin broadened and his mood became more tolerant. Maybe Keating was a good enough egg, after all. Not such a good pilot—and never a gracious butt of Jimmy Wallace's notorious practical jokes—but still, what did it matter? Somebody had to fly with Keating.

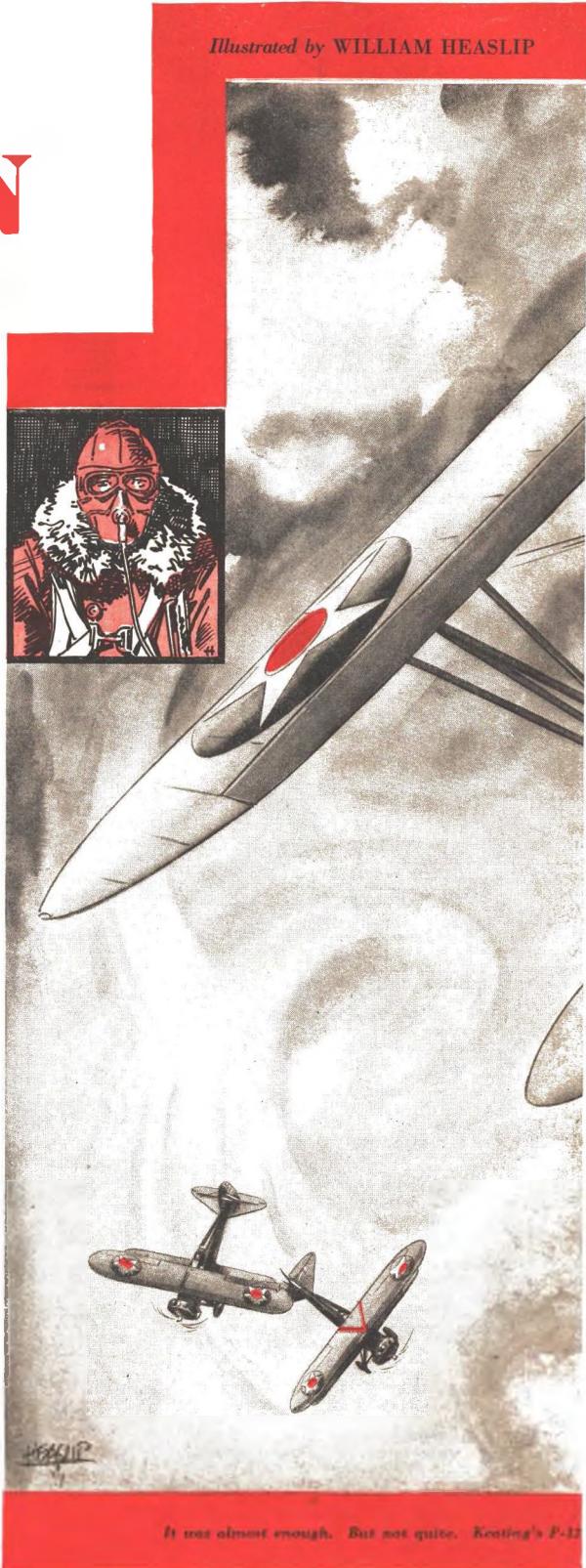
Jimmy looked down at his flying costume, and his amusement heightened. He was clad like an Eskimo. His suit and high shoes were of double-lined fleece, and his face was now concealed inside the grotesque ugliness of the oxygen mask. On his knees, too, lay a pair of heavy, fleece-lined mittens.

He was beginning to need them now. The fingers on the P-12 control stick had become stiff and numb with cold, and into his lungs crept a strange, half-choked gasp, as if some giant had suddenly begun squeezing his chest and throat.

Slipping his hands into the mittens, Jimmy reached over and opened the oxygen feed valve. The gas flooded into his lungs with a rush that almost nauseated him. He remembered, frantically, that too much oxygen is as dangerous as too little, and his tongue darted out to cover the small intake hole of the mouth nipple. Instantly the gas flow ceased, and his mind cleared. He grinned again. Why, this was easy! When you felt yourself going woozy, you simply removed your tongue from the mouth valve and took a light breath or two of oxygen. Then you put your tongue back, closed the valve, and waited till you were woozy all over again!

He looked over at Lindsay, wondering if the Ace were equally delighted with this discovery. But the only response was a hand wave that pointed down. 22,000 feet now! Be-

Illustrated by WILLIAM HEASLIP



*It was almost enough. But not quite. Keating's P-12*



sloughed into Jimmy's tail skid with a dull, ripping crunch.



# ZONE

## *Proving That the Funniest Joke May Suddenly Turn on Its Owner and Bite Him in the Ankle!*

low them, the Caribbean Sea had spread out like a huge lake overflowing her boundaries, and the city of Colon had shrunk to the size of a ten-cent piece. Everywhere lay the dense green of the Panamanian jungle, roasting in the tropical sun.

Jimmy stole a glance at the thermometer he had borrowed from the squadron ice box. Roasting, eh? Well, up here, equator or no equator, the temperature had dropped to eight degrees below zero!

And still another change had become noticeable. The P-12 was sluggish in answering her controls. There was less lift to her wings, less power to her propeller. The tachometer showed five hundred revolutions less than normal, with the rate constantly lowering.

And still they climbed on. 27,000 feet now. Every additional foot was stripping away just that much control from their ship—and adding

just that much more hazard to their flying.

Jimmy sent Lindsay and Keating a signal to spread out, and the formation opened. Silly to hold their wings close together now. Why, you couldn't even maneuver a gentle bank without skidding off like a surfboard! And Keating—what a place this was to fly with a man like Keating! One slip, and even an expert like Lindsay could never correct his error in time to prevent a collision.

Jimmy frowned. They had reached 29,500 feet, and the Wasp motors were churning laboriously. He leveled off, thought again of Keating, and gave another signal for his wing men to take distance. Then, with a thrill of sudden apprehension he gave the signal for a loop.

The ships nosed down, groaning. Spinning blades clipped furiously at a cloud bank miles below. Down. Down! A hundred feet. Two hundred feet. Three, four, five!

Jimmy Wallace hauled back on his stick, and waited a breathless century for the controls to answer. The P-12 walloped, plowed up at last, hung crazily upside down with fluttering wings, and then dived again for the clouds. When they straightened out, the altimeter needle read less than twenty-eight thousand feet!

Jimmy gasped with astonishment. A P-12 had looped and lost thousand feet. A P-12—his P-12—which normally would gain a thousand feet in any loop, had *lost* a thousand!

He looked about for the others. Ace was on his left, not a dozen feet out of position. But Keating, in some manner, had pulled out fully a hundred feet over their heads, and had crept forward until he was nearly even with Jimmy Wallace. Maybe you couldn't blame Keating—you couldn't exactly blame anybody up this high—but Ace Lindsay had managed it perfectly. And Rud McAllister could have done it, too.

Keating was a ham. And, Jimmy added illogically, he couldn't take a joke. Then it happened—

They were edging out over the Caribbean, and Jimmy signaled a left turn. He banked, looking down at Ace Lindsay, conscious that Keating was swinging around overhead. Then a shadow caught the corner of his eye.

It was a wing shadow, cast by Keating's P-12. Keating, misjudging his distance in the slippery air, had banked too steeply, and was skidding straight into Jimmy Wallace's ship. Subnormal lift to the wings. Sluggish controls. Strange, cramped conditions of high altitude, and heavy shoes and gloves, and oxygen masks. Keating was fighting like mad, but the P-12 lurched on, uncheckable.

Instinct kicked the controls for Jimmy Wallace. He didn't think. There wasn't time. His ship tipped full on one wing and nosed down with a sickening whip.

It was almost enough. But not quite. Keating's P-12 sloughed into Jimmy's tail skid with a dull, ripping punch. Fabric peeled from Keating's wings. Locked, the two ships spun down. A thousand feet.

Five thousand. When the ships finally pulled apart, by some miracle Keating's left wing hung on. Whistling and creaking, with streamers of fabric flying in the wind like a dozen battle flags it stayed in place, and finally Ham Keating, with trembling fingers and ghost-white face, felt his ship level off and begin a normal glide toward the landing field.

They landed side by side. Jimmy went alternately hot and cold with fury. Keating was pale, silent, staring down at the ground as if he were wondering how he'd gotten there. He walked, shakily, over to Jimmy and held out his hand.

"I—I'm sorry, Jimmy!" he said. "My goggles iced. I should have known better than stick my head over the side. I looked down to make sure where you were, and the old crate suddenly slipped out from under. And after that—well, I'm glad I came nearer taking it myself than giving it to you. Okay?"

All the fury in Jimmy's heart welled for expression, and then, just as suddenly disappeared. High altitudes! This might have happened to anyone. He grinned the famous, yet infamous, Wallace grin.

"Okay, Ham? Sure, it's okay. But remember, you owe me some fun to make up for this—I always relax after a tough day!"

Keating was instantly suspicious. "What do you mean by that? A dog-fight? Or another of your jokes? Listen, Jimmy!"

"I can't hear you!" Jimmy grinned. He turned to join lanky Rud McAllister over near Operations Office. A little later, when Ace Lindsay landed, he found Jimmy and Rud in earnest and secret conversation in the shadows of "B" Hangar.

Ace was frowning his worry. "I thought that jungle smash was a close one. But this—" he paused, as instantly suspicious as Keating had been. "I say—what are you two up to now?"

Rud smiled sheepishly. Jimmy Wallace faced his chum with guileless innocence. "You don't mean to suggest we'd be plotting anything?" he asked.

"I don't have to suggest," Ace retorted. "I know!" "Then tell the mess steward we'll be right over for lunch, will you? And—" again came the indomitable Wallace grin—"and we'll give you a full report in the morning!"

Ace sighed resignedly and struck out for the Bachelor Officers' Mess. Immediately the two plotters began whispering.

"You fix it with Sergeant Mays to leave the hangar door open, and I'll get the paint," Jimmy commanded. "After that, there'll be nothing to it but your art talent and my brains!"

"Your brain!" snorted Rud. "Certainly not more than one, and I'd have to see it to believe that much!"

He paused. "Seriously though, Jimmy—you don't think Ham will take it the wrong way?"

"Of course not! Doesn't everyone at the field tell him that, anyhow?"

"I know. I know we do, ordinarily. But after today, and what just happened?"

"Forget it, Rud! Ham and I shook hands on that.

It's all over and forgotten about. And I warned him, myself, that I had to have my fun."

"And he wasn't sore?"

"Certainly not. He thought I was after a dog-fight with him."

"Okay, then!" Rud chuckled. A gleaming sparkle flashed from his eyes. "As an artist, Jimmy, I'm there!"

Arm in arm they headed home for lunch and an afternoon of tennis. That night, the merciful darkness of the tropics concealed the strange sight of two pursuit pilots in dungarees slipping stealthily into Hangar "B," their hands loaded with paint, paint brushes, and the advertisements of a Chicago meat-packing company.

Jimmy Wallace's flash light spotted a P-12 with the Number "15" on its fuselage. The beam raised to play on the wing that had been ripped in the crash.

"See!" he whispered, exultantly. "I told you they'd have it all repaired by tonight."

"You're sure Number 15 is Keating's ship?" Rud asked.

"Am I sure?" was the sarcastic response. "Wait'll somebody almost tattooed those two digits on your forehead at thirty thousand feet, and see how quickly you forget it!"

He deposited one of the paint cans on the floor with such a clatter that they both jumped. Jimmy snapped off the light, and for several minutes they crouched in the dark shadows, breathlessly listening. But nothing happened. Hangar "B" was deserted.

This time the flash light ran along the fuselage of "15" until it reached the crouched, poised body of a wild cat, the squadron's famous insignia. Work began in earnest. Rud held the light while Jimmy applied a generous coating of olive drab paint over the body of the wild cat. The paint, thoroughly mixed with wing dope and drier, hardened almost as it left the brush.

The brush then went to Rud. For twenty minutes he labored, pausing only for an occasional glance at the meat-packer's advertisement. With a final artistic dab he stepped back and surveyed his work with a seriousness that brought a roar of laughter from Jimmy Wallace.

Gone was the wild cat. In its place, on the trim, graceful fuselage of the P-12, was a ham. To the

credit of Rud McAllister's art ability, it was a good ham. The center bone protruded near the cockpit and the meat, with a slice or two cut away, was tastily pink and full, and streaked here and there with fine lines of fat. Cloves garnished the sugar-brown exterior. A curl of steam rose up, suggestive of savory odors. It was so good that Jimmy Wallace suddenly hungered for a ham sandwich.

It was too good to keep. They ran full speed back to quarters, eager to let Ace Lindsay in on the secret. But the Ace was nowhere to be found. In the morning, when they did locate him, the third member of the inseparables greeted their news with a shocked horror that lengthened his face to almost twice its normal dimensions.

"I say!" he exploded. "You've done what?" Jimmy's grin faded with a sudden and nameless fear. He repeated the story, briefly. Again Lindsay groaned.

"Oh! You dolts! You—you hams!" The Ace stared at them sorrowfully. "I say—didn't you go into Operations yesterday afternoon? Didn't you see the new order? Switching the ship assignments of every man in the squadron? And Number 15—" Ace Lindsay's face went white, and he sank weakly into a chair. "Number 15 is Major Churchill's personal airplane!"

Major Churchill! Commanding officer of the field! Jimmy Wallace gazed open-mouthed at Rud McAllister, shivering as his blood turned suddenly to ice. They had painted a ham on Major Churchill's personal airplane! They had—oh!

When the first stunning shock passed they slumped down to "B" Hangar like criminals revisiting the scene of their crime. The roar was audible a quarter of a mile away. Everybody—pursuit, bombardment, the service and photographic sections, the meteorological section, and even the guard and telephone operators—was there.

Major Churchill's boots were clattering an irate beat on the cement hangar floor. His swagger stick flailed like a whip. His face was infra-red. His voice boomed like the reveille gun.

Only one man dared to laugh, and that man was "Ham" Keating, hidden behind the hangar door, tears streaming from his eyes as he bent double, utterly weak and helpless.

Then Major Churchill saw Rud McAllister and Jimmy Wallace. With admirable control he held his fury in check. He stalked up to them, and words snapped out, crisp, biting, staccato.

"Lieutenant McAllister! Lieutenant Wallace! What's the meaning of this? Report to my office, sir, at once!"

Sir! When a major says (Continued on page 28)



For twenty minutes Rud labored. Gone was the wild cat and in its place was a ham.

# SIGNALS



*Duffer was treading water to keep his nostrils well above the foam of those stiff whitecaps. Wally breathed a sigh of relief.*

## *The Tense Story of a Great Cruiser's Signal Bridge*

by

Warren Hastings Miller

Illustrated by COURTNEY ALLEN

**M**AN overboard! Man overboard!" All the bridge company saw it, and they all exploded into action. He had dropped far out, as if tossed from the signal bridge above. His mouth was wide open with surprise and his eyes staring as he clutched the empty air wildly with both arms.

Lieutenant Wally Radnor happened to be up on the bridge adjusting a turret-gun transmitter when the staccato notes of the bugle rang out down on deck and the shrill of the boatswain's pipes called away the lifeboat crew. There was a deafening din as Stanguey Brooke, junior watch officer, tooted the battle siren.

Wally dashed below for the range finder on the cruiser's after turret. He could see the fleet column falling out astern, odd-numbered ships to starboard, even numbers to port. Puffs of steam came from their whistles. The big yellow signal flag with a black dot in it which means, "Man overboard!" was rising above the funnel smoke on their own ship. Over on the flagship of the central dreadnaught column a string of signals headed by the cornet was already flying.

Wally knew who the victim was. Ensign Duffer Holbrook, junior signal officer, Crinky Sproule's own pet and chick! Clumsy, good-natured Duffer! How had he ever fallen overboard?

Rapidly Wally adjusted the range-finder lenses and swept the sea aft for signs of his man. That powerful double telescope, twelve feet long, soon picked up Duffer with startling distinctness. He was treading water to keep his nostrils well above the foam of those stiff southwest whitecaps. Wally breathed a sigh of relief.

Then a wave of sympathy overwhelmed him. This

little stunt had broken up the entire battle fleet formation. And the cruiser division out of action! And this wasn't the first time Duffer had planted his foot in it!

"Course 137, Commander," Wally telephoned to the bridge. "Range, 780 yards. I think *Lansing's* boat will get to him first, sir."

"That's well, Radnor," came Commander Whelan, the navigator's voice.

Immediately a hoist of direction and range flags rose on the *San Antonio's* halyards. The others astern broke out theirs after calculations from Wally's data. The sea was covered with lean gray cruisers, all stopped and their lifeboats away. The two battleship columns steamed on.

Wally kept his range finder glued on Duffer. The boats seemed forever in finding him in that heaving mess. But Duffer could hold out. He came from Vermont country stock and had endurance. Wally's mind ranged swiftly over Duffer's history. He had spent his boyhood all over the globe, following his botanist dad, and knew eight languages. That's why Crinky Sproule, the ship's signal officer, had grabbed him for cub. But Crinky had been unable to train the inborn clumsiness out of him! Old Duffer!

"How's he bearing now, Radnor?" It was Captain Burton's voice. He had come on the bridge to take charge.

Wally applied himself to the range finder. He

swung it in an arc. Back again, frantically! Duffer was nowhere in sight in that thick wrack of white waves! "I've lost him, sir," Wally faltered. "You've what?" Captain Burton barked. "Wait a moment, sir," said Wally hastily. For a moment he studied the waves and then looked up bleakly.

"It's fog, sir," he reported. "Limit of visibility is now only six hundred yards. Sou'wester's growing smoky, sir."

"Hum! That's serious. . . . Sproule, fly Q and numeral three! Those whaleboats are casting too far to the north."

The big yellow Q flag rose from the signal bridge. The numeral under it ordered all boats to bear away farther from the ship. Through his range finder Wally could see the white threads of the fog streaking low over the waves. That white fog bank on the southeastern horizon was creeping up, bringing its own wind, and its ghostly fingers were reaching out like tentacles toward the cruiser. The aftermost ships of the column had already vanished.

Wally choked. The boats would have no chance to do any searching, once that fog arrived. Poor old Duffer! He had found more ways of getting into trouble than any Jayo who ever joined ship, but this time . . . this time. . . .

Now, even the whaleboats were vanishing at seven hundred yards. Silently Wally prayed. Duffer's life was on the knees of chance.

And then Captain Burton's voice, gruffly relieved: "O. K., Radnor! *Lansing's* boat's got him."

Wally expelled a trembling breath. Close call for Duffer. But meanwhile the dreadnaughts had gone on, the cruiser column was broken up, and the fog was creeping ahead, thick as soup. The Navy would

come down on Duffer like a kitful of hammers!

Wally hurried to the wardroom to learn the news. Fighter Dodson, his own chief and gunnery officer of the ship, was there, together with two or three division officers and Crinky. Wally had never seen the long, gangling signal officer so irate.

"Darn him! Darn him!" Crinky was saying. "I don't want to lose my cub, but how can I explain to Captain Burton? We were hoisting a five-flag signal and the halyards got off the pin—you know how they jerk in a smart breeze like this! Duffer grabs for 'em and hangs on like grim death. He didn't need to—the quartermaster was catching a turn! Well, anyhow, those flags are big as sails, and five of 'em will fling a man like a cat. Does he let go? No, he tries to catch his toes under the rail! And then out he's flung, like a sack of wheat. Can you beat it? He's hopeless."

Crinky paused, out of breath with indignation.

"Is it Duffer's finish, then?" Wally asked.

Crinky shrugged. "He's all feet and hands. Every time he comes on the signal bridge he knocks over something or trips on a bight of rope. I'm always looking for code books that he's mislaid somewhere. This ship won't put up with him any longer! The skipper good as told me so." Crinky grimaced ruefully, for he liked Duffer. For all his bungling, Duffer had a keen, sure mind.

Fighter Dodson cracked a toothy smile. "A duffer remains a duffer till you get him in a race," he remarked briefly. "An old yachtsman told me that. Once he sees the other boats of his class passing him like a dock, he gets busy and spruces up."

Wally looked at Dodson thoughtfully. "Something like that might happen to Duffer," he said.

"A race," Crinky repeated. "Some sort of test that'll make him snap out of it."

"Or show up the good stuff in 'im," Wally added eagerly.

The captain's orderly appeared in the wardroom. "Captain's compliments," he said. "Lieutenant Sproule will report on deck."

"Looks bad!" Crinky murmured and went out.

He had barely disappeared when a bugle blew a flourish somewhere on deck, informing the ship that Burton, as senior officer present, was taking command of the cruiser column now that it was separated from the rest of the fleet. Wally and Dodson buckled on swords and hustled for their stations.

From his post in the forecastle top, Wally looked out over a world that was gray and blank. The fog had closed down thick as pea soup. Their siren was squaling dismally at minute intervals. A gang astern was paying out the marker-buoy hawser by which the next ship astern kept her course and distance. The white flag with blue crosses signifying guard ship was rising like a limp ghost past Wally. It vanished in the gray vapor overhead. No one could see it, nor the semaphore arms, nor any signal strings. Only the radio, buzzing its *dits* and *dahs*, gave evidence of an outside world, beyond the gray shroud. Then a ghostly boat came wallowing up astern and hove alongside, to starboard. That meant a commissioned officer coming, and Wally peered down to see who was emerging from under the hood.

It was Duffer, a trifle damp. Ensign Wray, who was junior officer of the deck, received him over the sea ladder.

"I'm glad, old man!" Wally heard Wray say. Then, officially: "You will report to Captain Burton immediately."

"Yes, sir." Duffer saluted the flag astern, then Wray, and walked stiffly forward on deck.

Wally felt a great desire to stand by the bedraggled ensign and grip his shoulder, and buck him up. If only the Navy wouldn't bear down too hard!

Again the bugle flourished and Wally stood at attention as the division pennant rose to the masthead. A red glow astern, fog-diffused, told him that the next ship had come up and had her nose on the marker buoy. The increased vibrations thrumming through the *San Antonio*'s steel accompanied a faster glide

of waters along her side. Crinky and the captain between them had formed the division in column and they were speeding up to thirty-eight knots, so as to overtake the battle fleet. The problem would be to find it and take their station on the starboard flank in this fog. And that was up to Signal Officer Crinky.

A quarter of an hour later Duffer Holbrook himself climbed up into the fighting top. He was large and well-muscled, with a face that was craggy but full of strength. Wally eagerly grasped his hand, his eyes asking questions.

"Suspended, Wally. Two weeks," Duffer replied in a low voice. "I'll get shore orders before they're out." He looked wistfully over the ship that held all the joys of life for him. Wearly he leaned back against the rail and immediately there was a *crash!* as the conning tower telephone fell on the steel floor. "Daggone you, Duffer!" Wally half laughed. "Look where you're putting those elbows of yours!"

"Huh?" Duffer looked around amazed, unaware that he had knocked down the phone. Any small object near those abundant limbs of Duffer's was in peril unless secured by a turn of rope! Wally picked up the phone.

"You calling me, Radnor?" came Dodson's voice.

"No, sir. Duffer's up here," Wally growled.

Wally hung up the phone and turned to Duffer.

"What does Crinky think about it all?" he asked.

"He's sore. He and I got along fine. After all, I tried to save the darned signal hoist, didn't I? The flags might have caught in a shroud and made monkeys of us all."

Wally nodded thoughtfully. He was wondering just how a suspended officer could stage a comeback. There certainly was a lot of good in this Vermonter if something...

The *Booo!* of a merchant vessel sounded distantly through the fog to starboard, interrupting Wally's reverie. He snapped erect. Merchant ship! In this fog! Butting into a chain of fast cruisers, two miles long, all following each others' marker buoys! If she avoided the guard ship by passing astern of her, she'd be cut down by the next ship in line.

*Booo!* said the stranger, much nearer.

*Whoop!—Whoop!—Whoop!* their own

battle siren sounded, warning her that naval ships were about. The other cruisers took it up down the line. The speed of all slowed down.

*Booo!* He hadn't made up his mind what to do yet. He was proceeding on his course, whatever that was.

"That's a Greek ship," Duffer said quietly.

"A what?" Wally cried skeptically. "How do you know that?"

"By the tone. I used to hear 'em come into the Golden Horn when we were in Constantinople."

"You're crazy!" said Wally. "Greek ships are all built in England."

"Yes, but not the whistles. They're French make, and of one peculiar tone. It's a chime. Hear it? Karagoulos Line. I'm not arguing with you—I know."

Good old Duff! Wally felt a quick regret. He had that positive certainty about ships and their communications that is required of the signal officer. And what he knew stayed with him. There was no haziness nor hesitation about it. Crinky was losing a star cub!

"Do you speak modern Greek, Ray?" Wally asked respectfully. He forebore to call him Duffer this time.

"Huh? Sure. Greek and Arabic. About all you use in the Near East."

"Does Crinky?" asked Wally narrowly.

"Huh?" Always that "Huh?" while Duffer's tenacious mind was grasping an idea. Then he said: "By golly, he doesn't, Wally! And we can't flag that fellow in international code in this fog! He's sure to make a mess of this unless someone explains by wireless!"

*Brooo!—Brooo!* blew the Greek, which meant, "I am changing my course to port." He had decided to cut across astern of the *San Antonio*, which would bring him right across their marker-buoy hawser and into the steel bows of the next ship astern! Immediately the *San Antonio* whooped the four-blast danger warning and Wally yelped:

"Run! On the double, Ray! Crinky can't ask for you. Volunteer! Anything!"

"Huh?"

"Don't stand there yipping!" Wally barked. "Beat



Duffer landed on the bridge. "Give me that megaphone!" he gasped, as he rushed on Crinky. "He says

it! They need you. We'll be sounding collision quarters in another minute!"

Duffer slid down through the fighting top hatch, Wally after him. The big ox would need a friend when barging in on the bridge where suspended officers never went.

The Greek ship was utterly confused by now. Hoarse hails were coming through a megaphone from somewhere out in the fog and Crinky was answering in English, French, Spanish. The Greek had stopped his engine, but he couldn't grasp the idea that a whole column of warships was steaming across his path. He might start up again!

Duffer and Wally jumped down off the forward tripod-mast ladder to land in the midst of the signal bridge company. Crinky was there, Captain Burton, the lookouts and signal quartermasters. All were anxious and cursing this stranger whom no one could understand.

"Gimme that megaphone!" Duffer gasped as he rushed on Crinky. "He says he's keeping on under our stern!"

That appalling announcement was enough to make Crinky relinquish the megaphone in haste. Captain Burton looked slightly amazed at the sight of the man he had just suspended, appearing precipitately on the bridge.

But Duffer was paying no attention to anyone else. From the starboard end of the bridge he was barking staccato Greek through the megaphone, his tones biting and urgent. The rest listened to the unknown words anxiously. Then Duffer turned and saluted Crinky.

"Okay, sir," he said quietly. "He's bearing off for half an hour before he resumes course. Sorry to have butted in, sir."

"That's all right, Duff," said Crinky.

"The thanks of the ship, Ensign Holbrook," said Captain Burton. "You did just right to volunteer. Carry on, everybody. Sproule, get those marker buoys payed out again. Signal column ahead, full speed."

He left the signal bridge for his own station just below them in the big glass navigation bridge. Wally and Duffer were left standing by while the busy Crinky got the cruiser column up to speed

again. Burton had said nothing about the suspension, but Wally thought he saw an opening wedge in this incident of the Greek ship. At least it was an object lesson in the kind of junior signal officer they were letting go. Wally walked over to Crinky.

"Crink, how about that race idea of Commander Dodson's?" Wally rumbled thickly. "Isn't there some way you can fix it so Duffer can run the signals on his own? Fleet maneuvers ought to give you some opportunity to let Duffer show himself. And he'd do his stuff."

Duffer was standing forlornly about, gazing at the various wireless and Ardois and blinker-light keys, the flag lockers and searchlights and semaphore apparatus. He was like a man taking his last look at a home he loved. Crinky glanced at him covertly.

"How can I, Wally? He's suspended," Crinky replied, and added regretfully. "There's going to be some snappy signal work, too, when we rejoin the fleet."

"We've got to pick up the fleet in this fog," Wally went on, "and put ourselves on the starboard flank just five thousand yards off, with this guard ship exactly abreast of the Admiral's dreadnaught. Put all that up to Duff..."

"I know," said Crinky. "While I go below and read a book! No chance!"

That night the *San Antonio* was a magnificent spectacle as she steamed onward through the fog. Broadsides of searchlight rays lit up the waters on both sides. Roving beams searched restlessly for merchant vessels. A ray pointing aloft cleaved the fog bank like banner. How thick it really was Wally could tell by those brilliant red pin points of the ships astern. They were powerful searchlights of two hundred and thirty volts and thousands of candle power, but they looked like cigarette tips.

It was cold and clammy up here on the signal bridge. Wally was chilled to his marrow, but after a moment's thought he decided to stay by the disconsolate Duffer. They stuck around, muffled in their raincoats.

Crinky was busier than ever. He hadn't actually ordered them to leave the bridge. He was under the keyboard hood most of the time, sending, receiving. He had contacted the fleet ahead and had their course and position. Down below on the navigator's chart a line was growing out as the fleet steamed to meet the imaginary enemy. A second line, converging, was the cruiser column overtaking its own dreadnaughts.

It was all by latitude and longitude data, by course and distance run—the actual contact would be by eyesight and was a delicate thing. You could easily crash into one of those battle columns with an error of a few seconds of longitude.

"The fleet's bearing is 347, sir."

That announcement was coming at ten-minute intervals from the radio operator, who took it from his dial. Crinky acknowledged it and went on thumbing the battle signal book. He was the mouth and ears of the ship.

"Commander Whelan? Distance, please, sir," they heard him calling down the voice tube to the navigator.

"About twenty miles ahead now, Sproule."

"The fleet's bearing is 347, sir," droned the radio operator.

"Huh?" Duffer husked into Wally's ear. "Wonder if Crink realizes that means collision? If the bearing doesn't change, y'know—"

"Sure, he's wise," Wally rumbled. But he looked out anxiously into the brilliantly illuminated vapor over their port bow, for in that direction lay the fleet. It was angling across their bow. Very likely the cruisers would keep straight ahead until they were closer and then change course to parallel the dreadnaughts.

Crinky went on studying the signal book. On a pad he scribbled a sum in multiplication, evidently figuring the time it would take to close up the remaining distance. Then he rose and went toward the largest searchlight on the ship, a huge thing like a hogsnout mounted above them on a platform of its own. It carried a five-hundred-volt current.

"Cast off Number One's cover, you men," he ordered his signal force.

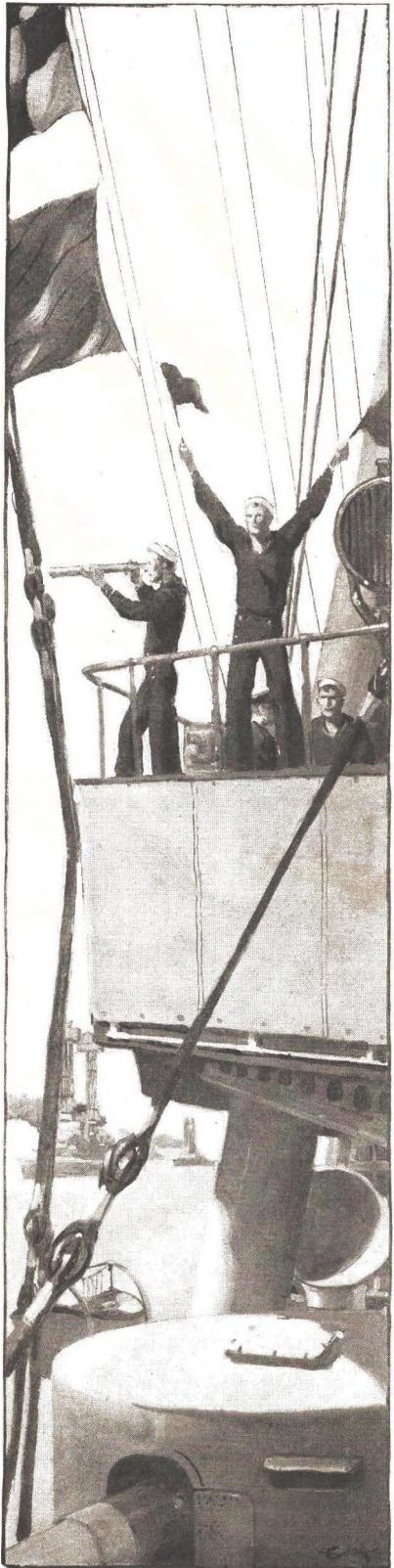
He went up the ladder with them and presently a big bundle of soggy canvas dropped on the bridge.

"The fleet's bearing is 347, sir," sang out the radio operator.

Wally looked up with apprehension at the three ghostly figures up there overhauling the searchlight gear. This was the *(Continued on page 27)*



he's keeping on under our stern!"



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## Friendly Talks With the Editor

### Big Men

**B**IG MEN have one quality in common. That is the quality of simplicity. Rarely do they waste time on any sort of show or pretense. They greet you informally, talk to the point, and say good-by in a courteous way. Only little men find it necessary to make a fuss about themselves. Which reminds us of an Abraham Lincoln story. The Civil War was tearing the country apart, and General George B. McClellan was in command of the Army of the Potomac. McClellan was on a rampage, and not at all averse to sassing the President. When one of Lincoln's indignant associates demanded that he discipline McClellan, Lincoln merely shrugged his shoulders, smiled tolerantly, and remarked: "I'd hold McClellan's horse for him, if that would help our cause." Lincoln had no false pride, no pretense. He was a big man.

*Science says that if the top and bottom of the world weren't ice-capped, there could be no collision between moisture laden warm air from lower latitudes and chill, moisture condensing air from the regions of perpetual cold: rains would divide or cease, and Canada and the United States would become a great uninhabited desert.*

### Fishing for Tags

**I**F YOU drop your line in the ocean this summer, examine the fish you catch. Maybe one or two of them will wear tiny metal tags, numbered, and perhaps bearing the inscription "U. S. B. F." If so, mail the tags to the U. S. Bureau of Fisheries, Washington, D. C., together with the date and the place you caught the fish. Also write down the length of the fish. Some of the tags carry complete directions for you. Government scientists are busy catching fish with hand lines. They measure their length, clamp tags on their tails, and drop them back in the water. The operation requires less than fifteen seconds, so the fish don't mind it especially. The government wants to know the migration habits of fish, so as to work out closed seasons that are really closed. Individual states can't do it. No use for Connecticut to protect weakfish, for instance, if the weakfish should happen to like to spend their summers in Chesapeake Bay. You will be of real service if you detach and mail your tags.

*A cow normally has in its stomach food which amounts to from 14% to 18% of its own total weight.*

### Stamps Saved Our President

**W**E WANT to pass along some interesting facts about stamps. According to Postmaster General Farley, 9,000,000 Americans are stamp collectors. They spend about \$6,000,000 a year on their hobby. Nearly every public and private school in the United States has its stamp club. President Roosevelt is America's Number 1 stamp collector. He started as a boy of eight, and now owns about 25,000 stamps. They fill thirty albums. When he was struck down by infantile paralysis, the President turned to stamps for consolation. "I can almost say I owe my life to my hobbies—especially stamp collecting," he has said. England brought out the first government postage stamps in 1840. Before that time letters

traveled C. O. D. The postman had a bad time of it. The sender would write his message in code on the envelope. The receiver would glance at the envelope, decipher the code, and then refuse to accept or pay for the letter. The British government invented stamps to stop this kind of panhandling.

*It takes most beetles longer, after hatching, to run the first twenty feet toward food than it does to cover the final seventy feet to the bag.*

### Beetles Big as Elephants?

**E**VERYBODY likes the pseudo-science story, and authors are hard put to it to find new ideas for them. Hugely magnifying the insect, in order to provide fresh thrills for you, is one device that is popular with the harassed fiction writer. He imagines a spider as big as a garage and as mean-dispositioned as a weasel. He turns that spider loose in a city, and—well, you've read such stories. Of course you know that there aren't any garage-size spiders. But why not? Science tells us that as long as a species is improving itself, from an evolutionary standpoint, it gets bigger. Then why shouldn't a beetle, in the course of a few million years, grow as big as an elephant?

**H**ow You Let Science Service answer the question. Men, say scientists, are better equipped to grow bigger than are insects. Vertebrates (you are a vertebrate, because you have a backbone) wear their skeletons *inside* their bodies. If, through the ages, men develop more muscle and tissue, they also develop bigger skeletons to support them. Vertebrates, it seems, can be as big or little as

they please. A humming bird is a vertebrate. So is a whale. Growth, for vertebrates with skeletons inside, is a relatively easy matter.

**T**he *Turtle* Insects, however—the beetle is a *for* typical insect—wear their skeletons *on the outside*. The beetle's muscles are inside him. That isn't a favorable arrangement, as far as growth is concerned. If he wants to get bigger, he must grow himself a bigger skeleton, or shell. If he does that, he must make it thicker and heavier, or it won't be strong enough. But if it's heavier, it makes him clumsy and slow—less able to earn his living. Look, for instance, at the turtle. He's a vertebrate, but he disobeys the NRA code for vertebrates by using his skeleton as an overcoat. And what happens? In order to get it strong enough, he's had to make his shell so heavy that he can barely walk. The armadillo is another vertebrate with an outdoor skeleton. He's awkward, too. Indeed, the bigger species of armadillo have already become extinct. So read about spiders as big as garages. Dream about them, if you like that sort of thing. But don't expect to meet one. Nature doesn't operate that way.

*Americans are supervising the laying of a 1,200-mile pipe line that will bring oil from Iraq to Haifa, on the Mediterranean coast.*

### Murder With a Steering Wheel

**I**N THIS country last year 29,900 persons were killed in automobile accidents and 850,700 were injured. Two-thirds of this tremendous number were due in some degree to careless driving. Consider, for instance, the rate of death per number of accidents. It's 28 per cent greater than the average when you drive too fast. It's 6 per cent greater when you drive on the wrong side of the road. It's 58% greater when you drive off roadways. It's nearly 37% greater when your driving, for any reason, deserves to be called "reckless." Reckless driving is bad. So, apparently, is reckless walking. Strolling down a country highway with your back to the traffic is terribly dangerous. Whether driving or walking, play safe.

*It took 176 years to build St. Peter's cathedral in Rome; the Empire State building, costing on 3,500 separate industries, was erected in one year.*

### What the President Wants

**A**S CONDITIONS improve, we hear more complaints about the NRA. It's human nature for business, having gone hungry for several years, to want to earn money quickly. It's human nature for labor, which is sick of bread lines, to want bigger wages in a hurry. Both business and labor, therefore, are inclined to chafe at governmental restrictions. Don't forget, however, that President Roosevelt wants more than a temporary cure. He wants to take permanent precautions against depressions—by controlling production, by dividing up the work, even if shorter hours are necessary, by insurance or other provision against unemployment. All of these objectives require cooperation, patience, and a certain amount of sacrifice. But the President's goal is worth striving for.



The bronze pup was whimpering and whining his complaint.  
He hated so to sit stock-still as if he were a saint, And never move a furry paw and never make a noise,  
And never play and never romp nor taste a puppy's joys—  
Just sit and hold that silent pose upon his master's papers,  
And keep the crinkly documents from cutting naughty capers.

# Warring Medicines

*In Which a Battle  
Turns Into a Hunt  
for Flying Woman*

by

James Willard  
Schultz

Illustrated by STOCKTON MULFORD

## The Preceding Chapters

**T**O ME, a young white trader, my Indian friends' belief in a Cree medicine charm was amazing. But Flying Woman, the slim Blackfeet girl I loved, was terribly sure of its power!

This was in the summer of 1881, that troubled summer when war between Crees and Blackfeet was a constant threat. Joseph Kipp, my trading post partner, and Eli Guardipe, our hunter, and I were doing our utmost to ward off war when the young Cree called Short Bow plunged us into fresh danger with his sudden, overpowering desire to win Flying Woman.

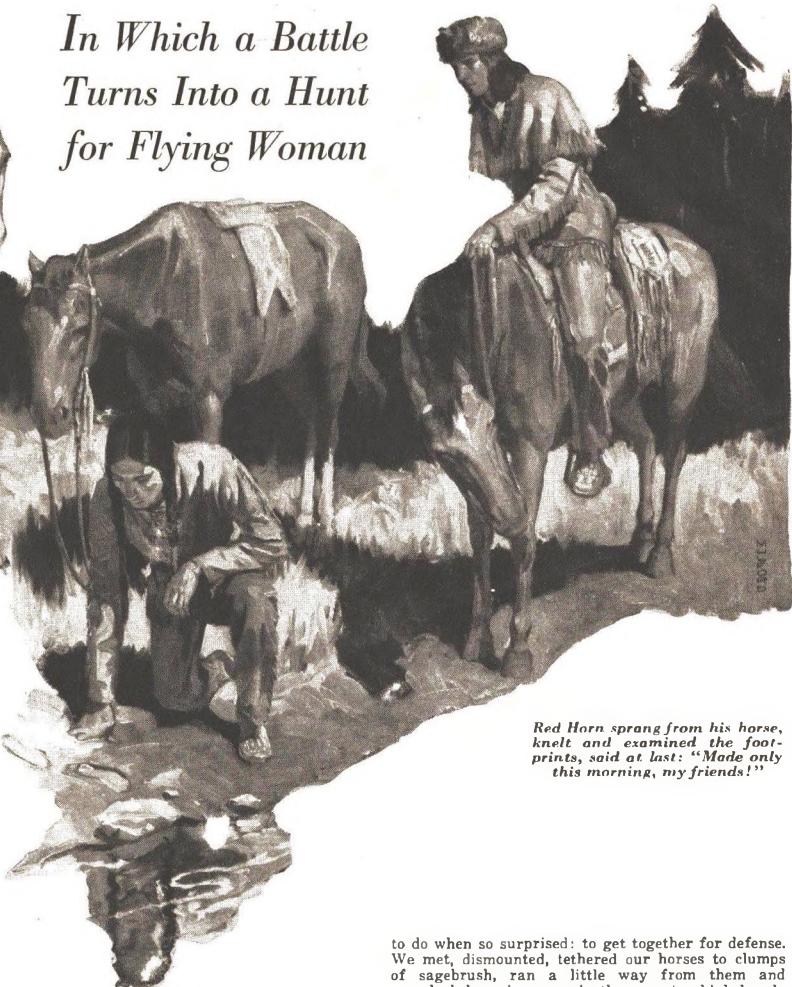
He persisted in wooing her, and ruthlessly stole an end of her braided hair to use in making a love charm. Against her will, the charm drew her, made her want to go to him!

Sahtaki, her mother, was almost beside herself. Then Flying Woman's father was killed in a raid, and the distraught Sahtaki left our Blackfeet camp and, escorted by Eli and me, took Flying Woman to the Kutenai camp, to the lodge of her brother Red Horn, a leading chief, and their wise old mother, Frog Woman.

But in the night Flying Woman fled from the lodge!

We woke to find her gone. Had Short Bow come for her? Though I myself did not believe she had gone with him, I went with Red Horn and two of his cousins and Eli to the Cree camp to see what we could learn.

Not there, Flying Woman. Had not been there, the Cree chief Big Bear declared; nor did he think Short Bow had taken her from us.



*Red Horn sprang from his horse,  
knelt and examined the foot-  
prints, said at last: "Made only  
this morning, my friends!"*

I listened to him and wondered, my restless fingers twisting the queer necklace of grizzly bear claws that old Frog Woman had made me wear to help in our hunt.

At last we rode away, all of us doubting, wondering. One thing was sure: we must return to our camp and organize a party to search the wilderness for Flying Woman, hopeless though the task seemed.

We started back but ran into a buffalo herd and stopped to make a killing, for our big camp always needed meat. Soon we had brought down thirteen fine, fat animals, and we began butchering them, four of us working close together but Rising Eagle, one of Red Horn's cousins, starting work on a cow that had run some distance beyond the others.

Suddenly, with fierce shouting, a big war party burst from the timber. Four of the riders headed for Rising Eagle and the rest, twenty or more, rode down on us. How fast they came on, savagely, relentlessly!

## Chapter Six

**S**IOUX they were, either Assiniboin or Yankton-Sais, as we instantly knew by their long-tailed war bonnets. Eli and I sprang up, seized our rifles, ran to our horses and, mounting, rode as fast as we could toward Red Horn and Many Wolves—they coming likewise toward us. It was always the one thing

to do when so surprised: to get together for defense. We met, dismounted, tethered our horses to clumps of sagebrush, ran a little way from them and crouched down in a row in the none too high brush. And had no more than done so when the party split, to shoot at us as they passed on either side.

Said Eli hurriedly to Red Horn: "You and Many Wolves shoot at the party on the right."

Red Horn nodded, signed, "Yes." Kept on praying; begging Sun to help us survive this attack; vowing to give in return for his protection a sacred lodge.

Myself, I was angry, and at the same time mighty anxious. I muttered to myself in Blackfeet: "Take courage! Take courage! Shoot with careful aim!"

And then we were shooting at the swiftly passing enemy, and they at us!

Eli's first shot tumbled a man from his horse. But I fired three times without apparent result; my fourth shot, however, brought down a rider of huge proportions. I yelled, and fired at another, one of the tail end of the party; failed to hit him but killed his horse. As the animal fell, the rider landed upon his feet running. But a shot from Eli brought him down before I could again aim my rifle.

At that moment Many Wolves gave a yell, dropped his carbine, and clutched his left shoulder, badly shattered by an enemy bullet. And then the two parties swept on and came together, and we kept shooting at them until they were out of range.

As we paused, we saw the four who had turned off to attack Rising Eagle. They were riding back toward the main party, and one of them was leading our companion's horse! Only too well we knew that the end had come for him.



*Riding into the Blood camp, we shouted: "Coming near is a party of Cutthroats! Seize your weapons, mount your horses—hurry!"*

"Gone! Gone, my cousin," Red Horn mourned. We stood watching the enemy, who had halted a half mile away and were apparently arguing as to what to do next. They presently turned and rode slowly to the ridge and onto its timbered slope. But not to abandon us; no hope of that. We had wiped out five of their number. What wouldn't they do to us when night came!

We were not long in deciding that we weren't going to be there then. Sun was still high; perhaps we could get back to the big camp before it set. The enemy would trail us, but we could again stand them off should they come too near. Or could try to stand them off.

Many Wolves' shoulder was bleeding badly. Eli and I sacrificed our shirt tails and I bandaged it with them, after sprinkling the gaping wound with tobacco.

We then made the round of our kills to take their weapons, and so doing, came to one of the horses we had killed. It was a pinto, and at sight of it Red Horn and Many Wolves clapped hands to mouths in surprise. It was, they declared, no other than Flying Woman's favorite horse, the one upon which she had fled! They pointed to its very peculiar markings: on its white right hip was a triangle of black, and its right eye was surrounded with a black disk, the remainder of its head pure white. Eli, also, was sure that it was her horse.

What, then, of the girl? Had the war party killed her? Short Bow too? Or had the horse in some way got away from her, and then been picked up by them? I still believed that Flying Woman had left camp alone. In that case, even if she had escaped discovery by the war party, she was now in a desperate situation—afoot, thirsty and hungry and afraid, in danger from many sources.

And what could I do about it? Where go in search of her? To find a lone wanderer in that great country of plains and mountains and river bad lands would be an almost hopeless undertaking.

Moreover, the coming night might be our last. What would become of Flying Woman if we were overtaken by the treacherous darkness—wiped out by the enemy before we could make the big camp? "Let's get moving," I said to Eli, in a torment of impatience to be off.

As we were hurriedly preparing to leave, there

came out from the timbered slope of the ridge, right at the point where the Sioux war party had emerged to charge us, a lone horse. It saw our animals and came on at a run, nickering shrilly. It was a gray, sore-backed and thin. Undoubtedly the horse abandoned by the Sioux who had taken Flying Woman's horse. And more than ever I was convinced that she was alone, for had Short Bow been with her, there would have been two strays instead of one.

"We must, we must go in search of her," I muttered to Eli.

"But first we must get away," he returned grimly.

In silence, then, we mounted our horses and started for camp, passing the fat cows that we had so lesslessly killed, and going on to where Rising Eagle lay. Well I knew what a ghastly sight he must be, scalped, his body horribly mutilated. I kept my eyes away from it.

Red Horn piled some sagebrush upon the body and said that his woman folks would come for it on the morrow. Many Wolves was talking to him bitterly; accusing him, Red Horn said, of being the cause of all this. Had he not insisted upon the search for the crazy girl—not worth looking for—Rising Eagle would right then be sitting happily in his lodge, Many Wolves said woefully, and he himself would not be suffering from a wounded shoulder.

I wanted to speak in defense of Flying Woman. Hot words rushed to my lips. But I bit them back. What was the use in speaking them? We rode away.

As we had expected, our enemies were soon upon our trail. But they made no attempt to overtake us; they were not going to attack us at once as I had feared they might—they were waiting for the coming of night. And always they circled off whenever we climbed a ridge, lest we should be lying in wait for them upon its summit. The persistence with which they followed assured us that they had no knowledge of the nearness of our camps.

Said Red Horn at last: "Our horses are undoubtedly much fresher, far stronger, than theirs. So this, presently, we will do. Ride on as fast as our horses can carry us; on and on without sparing them; and so cause the enemy to think that we are trying to lose them before the coming of night. Thus may we entice them so near to our camps that when

we call out all our fighters they can not possibly escape; ended will be the trail of every one of them."

A good plan, we thought. Hope rose higher in me; I began to feel sure that I should live to search for Flying Woman.

One thing might spoil Red Horn's plan for wiping out the enemy. They might discover some of our hunters returning late to camp with the meat of their kills; that would apprise them that they had come into truly dangerous country, and they would lose no time in leaving it.

Sun was less than an hour high when, about four miles from our camps, we began our burst of speed. Luckily, not one belated hunter had been sighted. Our horses were fresher than we had thought; they became excited, thinking that we were racing them. Our trailers, all unsuspecting, came on as fast as they could, but we left them farther and farther behind. They were not even in sight when we crossed the last of the pine ridges and turned down into the valley of our camps.

Many Wolves went straight on to arouse the Kutenai men, and Red Horn, Eli, and I entered the Blood camp, Red Horn shouting:

"Coming near is a party of Cutthroats! We must wipe them out! Seize your weapons, mount your horses; hurry, I will lead you to them!"

At once, men came rushing from their lodges, shouting to one another as they ran to their fast buffalo horses, tethered close by for safety during the night. As we neared Running Rabbit's lodge, he stood outside it, shouting to the members of the Horns society to gather before his lodge. A youth was saddling his horse; his women standing by with his rifle and cartridge belt, holding out his war bonnet and war shirt for him to don. Excited women and children were everywhere scurrying about, chattering, screeching, bawling. Within ten minutes the Kutenai men arrived to join the Bloods, and they were ready to start out.

Eli and I, tired and hungry, did not want to go; but we could not afford to have our bravery questioned, and rode with Running Rabbit at the head of his Horns men. Close on our left, as we climbed the valley slope, was Red Horn in the lead of his Kutenai warriors.

Running Rabbit had sent one of his sons up to the

rim of the plain to watch for the war party. The boy met us when we were nearly to the top, and said that they were coming across the plain, were halfway from the pine ridge to its rim.

A few minutes later we all were spread out in a long line, peering out at them from the screen of brush along the edge of the plain. They were riding slowly, their horses sometimes trotting, again wearily loping a little way; and they were coming on all unsuspecting of what was awaiting them. Running Rabbit said that none was to move until he gave the word, and the order went from one to another to the ends of our line.

Nearer, ever nearer the party came, but not until we could hear the smacking of their quirts upon their jaded horses' flanks did Running Rabbit shout: "Tukkwo!"

Singing, shouting Blackfeet and Kutenai war cries, our long line of fighters dashed up over the rim and out at the enemy. The oncoming riders did not fight; they fled. With what dismay, what terror, what hopelessness they wheeled about and made off upon their tired horses I could well imagine. Not one of them tried to face us and sell his life dearly; they fled like buffalo before a charge of hunters and like buffalo died, shot, some of them, others brained with war clubs.

Within five minutes the last one of the party was killed, and as the scalping and mutilation of their bodies was begun, Eli and I were quick to turn away. We two rode soberly back to camp. At its edge we were besieged by the gathered women and old men for news of the fight. There had been no fight, we told them. The Cutthroats had not fired a single shot, had all of them been killed as they fled; there had been twenty-four of them. With what shrill, triumphant war cries the women gave vent to their relief, their joy in the success of their loved ones. But one old man quavered:

"Too bad. Too bad. They should have let one of them escape. Never now will their relatives learn of their end, never will they know that our brave Blood and Kutenai fighters killed them."

We unsaddled, and hobbled our horses before Running Rabbit's lodge, went inside, rebuilt the dying fire, and stretched out upon the couch allotted us for a much needed rest. But that was not to be. Back down the valley slope came our men, singing the victory song and waving scalps and captured weapons, and the women rushed to meet them, each shouting the name of her loved one, praising him for his bravery and success against the hated Cutthroats. And then what feasting and smoking there was in every lodge. Until a late hour our lodge was crowded with visitors, each eager to tell just what he had done, what accomplished in the rout of the enemy.

But in all the talk none mentioned Flying Woman. I at last spoke of her, tried to get the circle's views as to what could be done for her, but they were not interested. What mattered a mere girl compared with the telling and retelling of their wiping out of the Cutthroats?

It was near midnight and the visitors were leaving when a messenger came from Red Horn with word that Frog Woman wished to talk with me. I replied that I was too tired to go to his lodge; that I would see her in the morning.

But in the morning I was feeling decidedly under the weather; something that I had eaten had disagreed with me. I got up, however, and went over to Red Horn's lodge, where Frog Woman and Sahtaki awaited my coming. When I had dressed, I had not neglected to put on the old medicine woman's heavy necklace, and now pointing to it, Frog Woman said, Sahtaki interpreting:

"You wore it yesterday; so of course the bullets of the Cutthroats failed to hit you."

"Yes, they passed me by."

"And you killed one of the enemy. That necklace is not only a protector; it aids its wearer to make his enemies cry."

Then she went on: "I sent for you last night because of a vision that was given me in answer to my prayers. Yes. In the afternoon I prayed to my sacred medicine, asked for help; and then slept. I heard crying. Faint, far-off crying of one in trouble. I looked and looked, in every direction. After a time I saw the crying one, indistinctly, just a shadow at first, then more plainly. My son, the crying one was Flying Woman; she was walking slowly, pausing often to look this way and that way, and constantly crying. And then I awoke, my vision ended. But it gave me to know that my granddaughter did not run off with that nothing Cree; to know that she is alone, on foot, without food; therefore in great danger. So is it that I want you and your friend, Takes Gun First, to go again with my son Red Horn in search of her. For now, with Rising Eagle dead, and Many Wolves badly wounded, no others of our camp will go with him in further search of her."

They say she brings misfortune to all who seek to help her."

Said I: "It is my sad thought this morning that it will be useless to look further for her. The Cutthroat's war party had her horse; they probably killed her."

Red Horn, sitting across from me, shook his head: "No. She is alive. My mother's visions are powerful; that which they reveal to her proves always to be true," he said. And after a moment of thought: "I let her send for you, talk to you, because I was ashamed. These Kutenai! Refusing to do that I asked of them! I was ashamed to ask your further help."

"You should have known that I will go with you, and so will Takes Gun First," I answered. "But I am sick this morning; my insides are all upset. Wait a little time, until midday, for me to recover, and we will go."

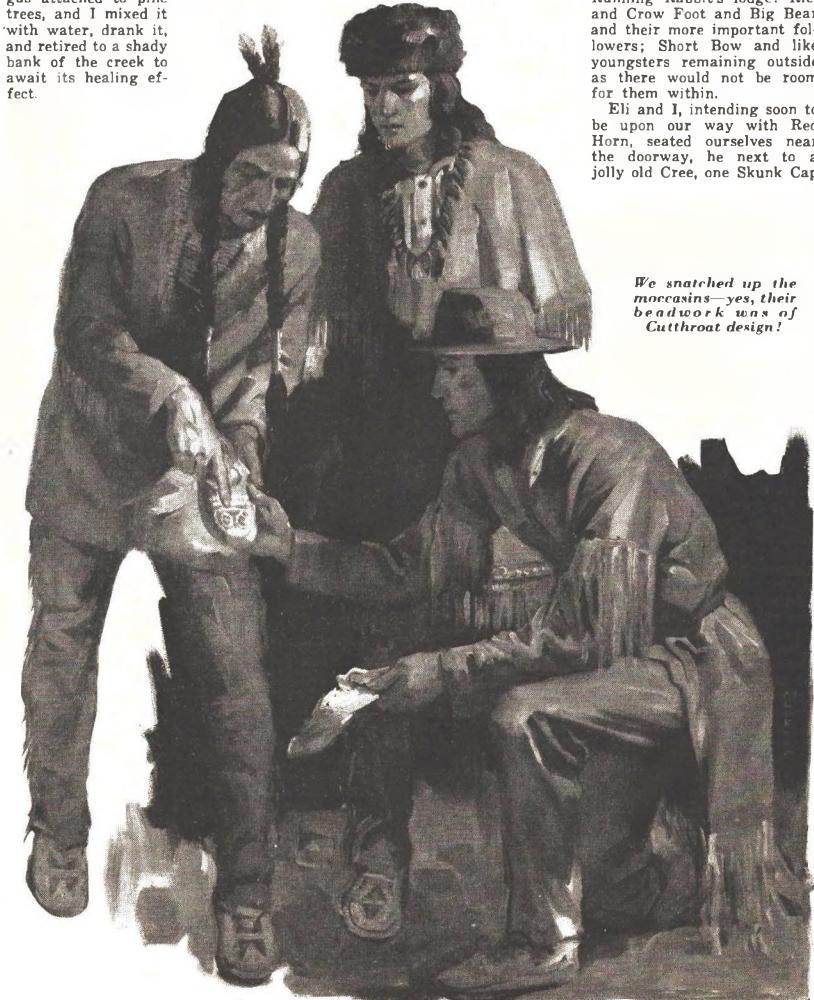
"Yes," he answered, smiling relievedly.

As I left the lodge, I saw Rising Eagle's mourning relatives starting out to recover what was left of his body and bury it. Going on back to Running Rabbit's lodge, I told Eli—Takes Gun First—that we were again to go with Red Horn in quest of Flying Woman.

He nodded and said soberly: "I do hope that she escaped the war party, and that we may find her alive and unharmed."

Said Running Rabbit's sits-beside-him woman: "You two, you will but waste your time looking for that girl, for when you find her she will be with her worthless Cree lover, and she will tell you to turn right around and go back whence you came."

The good woman then gave me a pinch of a dried and powdered growth, a toadstool-like fungus attached to pine trees, and I mixed it with water, drank it, and retired to a shady bank of the creek to await its healing effect.



We snatched up the moccasins—yes, their beadwork was of Cutthroat design!

While still resting, dozing—near noon it was—I heard the singing of greeting songs that meant the arrival of important personages. I returned to camp just in time to see Running Rabbit and his leading men meet Crow Foot with an escort of Blackfeet braves, Riel with Dumont and others of the Red Rivers, Big Bear and some of his Crees. And lo! one of them was Short Bow!

Eli, close beside me, exclaimed: "The gall of him, that Short Bow, to show up here!"

"I'm glad that he has; it proves that he knows nothing of Flying Woman's flight," I said.

Truly, as Eli said, Short Bow had gall, plenty of it. There he sat upon his horse, calm, unconcerned, his sweeping look around taking in Eli and me uninterestedly, as if we were perfect strangers to him.

The visitors dismounted and Running Rabbit and Crow Foot embraced and kissed one another; then Running Rabbit shook hands with Riel and Dumont; kissed and embraced Big Bear; and invited them all to his lodge. Riel came over and shook hands with Eli and me, and volunteered the information that the gathering was in answer to his request; he was going to make one last and strenuous effort to induce the Blackfeet tribes to join him, his Red Rivers, and the Crees in waging war against their Canadian oppressors.

We did not tell him that he was but wasting his time; that Crow Foot and Running Rabbit were firmly decided to remain at peace with the Red Coats.

I asked Riel what he could tell us of Short Bow's whereabouts during the past few days. He replied that he knew nothing more than that he had come with Big Bear to his camp the previous evening, as had Crow Foot and his followers, and there remained

for the night.

Then we were filing into Running Rabbit's lodge: Riel and Crow Foot and Big Bear and their more important followers; Short Bow and like youngsters remaining outside as there would not be room for them within.

Eli and I, intending soon to be upon our way with Red Horn, seated ourselves near the doorway, he next to a jolly old Cree, one Skunk Cap

by name; and during the general conversation while Running Rabbit was filling his ceremonial pipe, Eli got from the old fellow the information that we wanted: Short Bow during his two days' absence from camp had, with two of his friends, been to a rival trader at the mouth of the Judith, and from him obtained a generous amount of ammunition and other necessities, promising to pay him later with beaver skins.

That did settle it; Short Bow had had no part in the flight of Flying Woman. Running Rabbit had at last filled his pipe, passed it to Crow Foot to light, and was saying:

"My friends, before we begin this conference, I must tell you what we and our Kutenai friends did yesterday: Wiped out a war party of Cutthroats, all of them!"

I nudged Eli, signed to him, "Let us go," and we arose and slipped from the lodge.

In the crowd before the lodge were Short Bow and several other Crees, sitting and sign-talking with some of the Blood youths. Short Bow looked up at us as we appeared and quickly looked another way, pretending that he did not see us. Well we knew that he would draw from the friendly Bloods all that could be told of the disappearance of Flying Woman, and our attempt to find her. Without doubt he had been told of our inquiries for him in the Cree camp, and would now have a good laugh as he realized our suspicions of him.

Running Rabbit's herder had brought in our horses and saddled them. We rode over to the Kutenai camp, where Red Horn awaited us. He said that Big Bear had invited him to attend the council in the Blood camp, but he was not interested.

Frog Woman and Sahtaki had prepared pouches of food, enough to last us several days: dried and smoked buffalo tongues, meat, and back fat; roasted camas bulbs. Tearfully, with muttered prayers and trembling fingers, they tied the pouches to our saddles, urging us to do our utmost to find poor, desperate, exhausted Flying Woman.

Then we were off upon our quest, a most hopeless one, I feared.

### Chapter Seven

TO RIDE here and there in search of a lone girl in that vast, wild country seemed a desperately futile thing to do. We had but one slim chance of finding Flying Woman, or her dead body, and that was to back trail the war party that we had exterminated, and try to determine where they had come upon her horse, and perhaps her too. Such trailing in itself was not easy. Though the war party had numbered twenty-seven riders, even that many horses left little trace of their passing in the short, dense, springy buffalo grass of the Upper Missouri plains.

Proceeding at a fair pace, we arrived upon the scene of our buffalo run and the Cutthroats' attack upon us just as Rising Eagle's mourning relatives were gathering stones and piling them upon his mutilated body, which they had wrapped in many a robe and blanket. It was a somber scene. And our killings of buffalo made a gruesome background, their bodies now swelled to enormous size by the hot sun, their stiffened legs pointing upward into the blue.

We paused for a little with the burial party, gave them a few words of sympathy, and then went directly to the timbered slope of the ridge from which the Cutthroats had emerged to attack us. And there in the soft, black earth, almost bare save for a scattering of dead pine needles, were the tracks of their horses. We followed them to the summit of the ridge, and then northward along it to a point from which their riders had evidently discovered us crossing the plain. There they had dismounted and donned their war bonnets; for we saw little circles of trampled-up earth where their horses had been tethered, and here and there were the bits of feathers, eagle down, red trade cloth, and ermine skin that stuff from war bonnets every time they are drawn from the cylindrical parfache cases in which they are carried.

And still we back trailed them northward along the crest of the ridge; for a mile; two miles; then down its east slope at a northeast slant to the plain and its thick grasses; and there lost the tracks. But the party had gone southwesterly up the ridge; so we went on northeast across the mile-wide plain to the next ridge. At its foot, we again found the trail, but still no least sign of the Cutthroats' having come upon Flying Woman or her horse.

At the top of this second ridge we looked down upon the dark, forbidding breaks—the bad lands—of the Missouri, three or four miles away. We believed that the Cutthroats had crossed the river, for they had of course come from their Fort Peck Indian Reservation, on its north side. But how, then, could

they have come upon Flying Woman? For she had gone from us to seek Short Bow, in the Cree camp on Crooked Creek, and would not have turned directly off her course to wander down into the forbidding bad lands. There was a puzzler!

We got down from our horses and talked and talked about it, hazarding this and that solution, until Red Horn at last said: "No more talk. We must go on with our back trailing of the dog-faces, for that is our only chance to succeed in this which we set out to do."

But when we had back traced their southwest ascent of the ridge and were out upon the plain, we

odor, they fled. The buffalo, a big cow, had been skinned, and its hump, tongue, hind legs, and ribs were missing. The condition of its eyes indicated that it had been killed at least three days back; killed by the Cutthroats, we surmised.

We pushed on through the grove to the river, and upon its shore found innumerable horse tracks and the imprints of many moccasined feet. Then, having watered our horses and quenched our own thirst, we turned back into the timber, a little farther downstream, and there came upon a newly constructed war lodge. It was made of poles, pieces of bark from dead cottonwoods, cuttings of willow brush and buck brush—a lodge such as all war parties built in order to screen the blaze of their cooking fires from any possible enemies.

We decided to take possession of it for the night, and after we had unsaddled our horses and hobbled them, we went in with our various belongings.

There was a very thick layer of ashes in the fireplace, and near it were several worn-out moccasins. We snatched them up—yes, their beadwork was of Cutthroat design! Proof enough that here had feasted, and planned, and slept their last sleep on this earth, the war party that we had completely exterminated.

We went out and gathered some wood, started a small blaze in the fireplace, and ate a lot of our choice food.

Later, as we sat on, Red Horn remarked that some of the tracks upon the shore had seemed to him older than others. Older by one day of Sun's heat upon them. This indicated that the Cutthroats had occupied their fire-hiding lodge not one but two nights.

"Then they must have used the day between their two nights here in riding out upon discovery, and so perhaps have come upon Flying Woman," said I, to which the others nodded agreement.

We were tired, sleepy. Red Horn said that after all, he could not bear even the thought of sleeping in there, upon the very ground where had slept the Cutthroats whose bodies were now rotting up there on the plain near It-Crushed-Them Creek. He urged that we bed down outside; and that we did; in the edge of the grove, a few feet from the shore of the river. And I lay and listened to its hollow murmur, and pondered upon what we should do.

It mattered not to us now where the Cutthroats had crossed the river; it was from this point of their wandering that they had gone out and come upon Flying Woman, or anyhow upon her horse. It was now our task to try to determine where they had ridden, where scouted, and so perhaps find the girl, or what was left of her starved body.

I could not believe that the Cutthroats had seized her. None of their war party had had in his possession any of her beautiful belongings with which she had fled: her ceremonial gown of buckskin profusely trimmed with elk tusks, a mirror, comb, paints, complete sewing outfit, and almost new Hudson's Bay Company three-point, white blanket. Any warrior would have eagerly seized these things, kept them to give to his women or sweethearts at home. No, at least the Cutthroats had not captured Flying Woman. I fell asleep somewhat eased by the thought.

The next morning Eli and Red Horn agreed with my reasoning, which I set forth as, with the first light of the new day, we got up and bathed. We ate more of our choice food, watered and saddled our horses, and were off.

Riding to the upper end of the bottom, we turned down it, following the foot of the long slope up to the plain, and looking for an outgoing trail of the Cutthroats. When about halfway down the bottom we came to a trail up which a number of horses had gone. Its deep dry dust prevented our determining the age of the tracks, but they were quite recent, not at all wind blown; and, too, the droppings of the horses held their original color, were not bleached by the sun.

Eli proposed that we take to the trail, but I urged that we examine the rest of the trails leading out from the bottom, and Red Horn sided with me. Lo! in the very last one of them, at the extreme end of the bottom, were more horse tracks. This discovery strengthened our belief that the Cutthroats had twice slept in and around their war lodge, and twice gone from it out upon the plain.

We followed this trail up onto the plain, where it soon disappeared, leaving us to think out our next move. We were well north of the direct route from the Blood camp to that of the Crees, but we reasoned that Flying Woman, fearing pursuit by some of us, had doubtless circled widely from it anyhow, most likely up here to the north, where she would have the cover of the timbered ridges. It was upon these ridges and between them that we should spend our time, Eli and I both said. (Continued on page 44)



*Deaf to our shouts,  
she faltered for-  
ward, struggling  
on, weighed down  
by her burden.*

again lost the trail, and circled and circled for it in vain. From the summit of the ridge, however, we had determined where they must have left the river breaks and come out upon the plain, and thither we rode at a fast lope, but only to intercept a great herd of buffalo coming up from the water. They surged off to pass upon our right and left, and so obliterated all traces of the war party's trail.

Sun was near setting, the deep wide gash of the river already darkening with the shadows of night; there was nothing for us to do but go down to it and wait for morning. We struck into a deep-worn buffalo trail running down one of the steep, gnarled pine-grown ridges of the long slope, and at last reached the river bottom.

It was there a half mile long; the inner part of it open grass land; the balance a deep grove of cottonwoods and willows extending out to the shore of the river. Near the edge of the grove, a big grizzly bear was feeding upon the carcass of a buffalo, and a little way out from it, three coyotes were enviously watching him. The slight evening breeze was from us to them and, suddenly getting our man and horse

# Build a Darmstadt Konsul Glider



by

Merrill Hamburg

*Here's an Eight-Foot Soaring Glider That Will Ride the Air Currents Like a Man-Carrying Ship!*

WHEN the Allies, after the World War, limited the number of powered airplanes Germany could have, the Germans turned to gliders. They became the leading glider experts of the world, and the Darmstadt Konsul, reproduced here for your fun, is one of their most successful designs. Build this glider and watch it ride the air currents!

Perhaps you've wondered how man-carrying gliders can stay in the air for hours at a time. The answer is that they're supported by rising air currents. Wind blowing up the side of a hill, a breeze blowing off a lake and hitting the warmer ground, air coming off a wooded section to a barren stretch—these are some of the conditions that send up columns of air and help the glider to stay aloft.

Before you construct the Konsul, study the drawings and photos. Then, on long sheets of wrapping paper—your grocer will oblige—lay out full-size drawings of all parts. Build the glider over these drawings and you'll be sure of an accurate job. Here's the material you'll need:

8  $3/16''$  x  $3/16''$  x  $30''$  balsa for fuselage long-  
erons; 5  $3/32''$  x  $2x12''$  balsa strips for fuselage bulkheads; 1  $1\frac{1}{4}''$  x  $1\frac{1}{8}''$  x  $2\frac{1}{4}''$  balsa nose block; 1  $1/16''$  x  $3''$  x  $18''$  balsa for cowling; 1  $\frac{3}{4}''$  x  $1\frac{1}{8}''$  x  $8''$  wing mounting block; 1  $\frac{1}{8}''$  x  $2x12''$  balsa for skid; 6  $\frac{3}{4}''$  x  $\frac{3}{8}''$  x  $12''$  balsa for empennage outline; 3  $\frac{3}{8}''$  x  $\frac{3}{8}''$  x  $12''$  balsa for empennage spars; 1  $\frac{1}{4}''$  x  $\frac{3}{8}''$  x  $2\frac{1}{4}''$  fuselage rudder post; 4  $1/16''$  x  $2x12''$  balsa for empennage ribs; 1  $1/16''$  x  $1\frac{1}{4}''$  x  $12''$  bamboo for skid cap strip; 1  $6''$  piece of  $.030$  music wire for launching hook and ring; 1  $5/16''$  x  $5/16''$  x  $44''$  balsa for wing leading edge; 4  $5/16''$  x  $5/16''$  x  $18''$  for leading edges; 1  $1\frac{1}{8}''$  x  $3/16''$  x  $44''$  balsa for trailing edge; 2  $5/32''$  x  $\frac{3}{8}''$  x  $26''$  balsa for trailing edges; 4  $\frac{3}{8}''$  x  $3/16''$  x  $44''$  balsa wing spars; 8  $\frac{1}{8}''$  x  $3/16''$  x  $30''$  balsa wing spars; 24  $1/16''$  x  $2''$  x  $12''$  balsa rib stock; 1  $1\frac{1}{8}''$  x  $18''$  birch

dowel; 4  $1\frac{1}{4}''$  aluminum tubing  $2''$  long; 1 large tube of cement; 1 2-oz. can of banana oil; 6 sheets of Japanese tissue.

The fuselage bulkheads are numbered from one to ten, starting at the nose and ending at the rear. The table given below shows the over-all dimensions of the bulkheads. These are drawn by combining two true arcs in the rectangles whose ends are equal to the dimensions given in the column headed "plan view," and whose sides are equal to the dimensions given in the column headed "side view."

FUSELAGE DIMENSIONS					
NUMBER	SIDE VIEW	PLAN VIEW	NUMBER	SIDE VIEW	PLAN VIEW
1	$2\frac{1}{4}''$	$1\frac{1}{8}''$	6	$5\frac{1}{8}''$	$3\frac{1}{8}''$
2	$4''$	$2\frac{5}{8}''$	7	$5\frac{1}{4}''$	$2\frac{3}{8}''$
3	$4\frac{3}{8}''$	$3\frac{1}{8}''$	8	$4\frac{7}{8}''$	$2\frac{1}{8}''$
4	$5\frac{1}{2}''$	$3\frac{3}{8}''$	9	$3\frac{3}{4}''$	$1\frac{1}{2}''$
5	$5\frac{1}{2}''$	$3\frac{3}{8}''$	10	$3\frac{1}{8}''$	$\frac{3}{8}''$

The drawing shows how the arcs are drawn through the points A, B, C, and D. The centers for the arcs fall on the center line C-D. The inner arc is  $\frac{3}{8}''$  from the outer arc.

Since the bulkheads are so large it is best to cement up four pieces of balsa to form a flat piece from which to cut the bulkhead. The drawing shows how the four pieces can be lapped over one another and cut with a razor blade to obtain a close, tight joint.

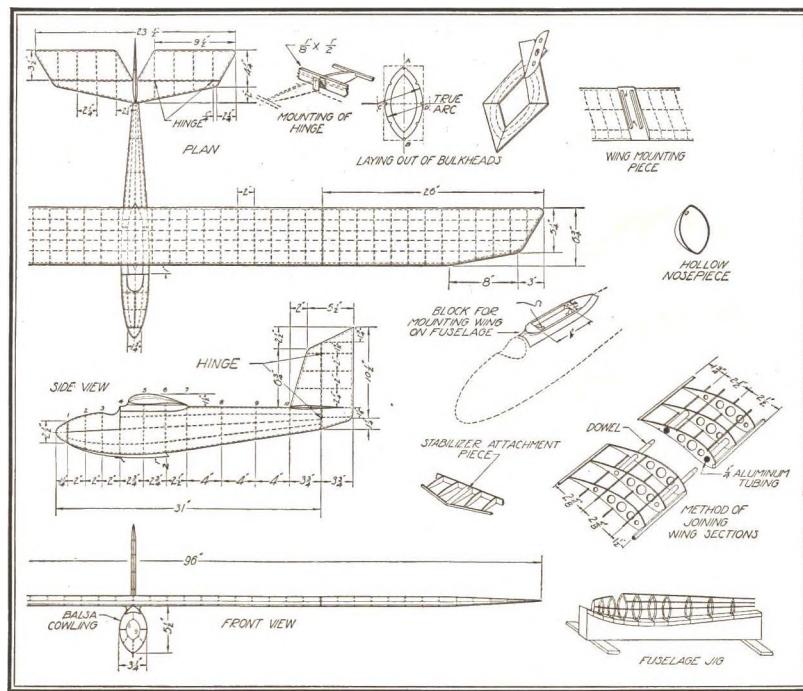
The upper edge of the fuselage from bulkheads No. 4 to No. 10 forms a straight line. In order to hold the bulkheads in their correct position while the longerons are bent around them and cemented into place, build the fuselage jig shown in the drawing. Use a piece of white pine  $\frac{1}{2}''$  x  $3''$  x  $32''$  for the body of the jig. Draw the bottom curve of the fuselage on the side of this board, lay out and saw perpendicular slots at the location of each bulkhead. Then saw the board away above the curve, leaving  $\frac{3}{8}''$  of stock to hold the bulkheads. (See the drawing.) A jig saw is ideal for this operation.

Set up the bulkheads in their respective slots and test the jig for accuracy by bending a small stick along the top. If the upper surface from No. 4 back does not form a straight line or if there are bumps in the curve of the fuselage, check the slots and bulkheads for accuracy.

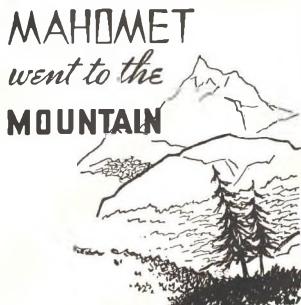
With a razor blade cut the  $3/16''$  slot in the top of bulkheads 4 to 10, and cement the top longerons in place. Place bulkheads 1, 2, and 3 in the jig. Lay out the side slots and cement the longerons in place. Leave the fuselage in the jig until the cement is thoroughly dry.

Cut the nose piece from a balsa block,  $1\frac{1}{4}''$  x  $2\frac{1}{2}''$  x  $1\frac{1}{4}''$  to the shape shown, and carve out the inside to a thin shell  $\frac{3}{8}''$  thick.

Take the fuselage from the jig and cement the bottom longeron in place. Cement (Continued on page 37)



You'll find every detail you need to know on this drawing.



## MAHOMET went to the MOUNTAIN and so did the Coaster Brakes

You've read how Mahomet, when he found that the mountain wouldn't come to him, made his famous remark, "If the mountain will not come to Mahomet, Mahomet will go to the mountain."

He went. So did the Coaster Brakes. It was this way. Coaster Brakes had been improved from time to time — and New Departure had pioneered those improvements. But, New Departure engineers believed that Coaster Brakes could be made even better.

So a camp was established on Hartland Mountain, in Connecticut — scientific instruments were loaded into cars — and testers sped down the steep grades, applying sudden back pressure to see what happened.

And lots of things "happened." Steels were found to be too "soft." There was not sufficient braking disc surface. Brakes "froze." Parts were shattered. All brakes were found to be inadequate to present day bicycling needs.

Something had to be done. And it was done. New Departure engineers with the lessons of Hartland Mountain fresh in their minds, drew new specifications, put their notes before the metallurgists, and the result is the New Model D New Departure Coaster Brake — the only brake built of chrome nickel steel — with 90% more braking surface — sealed tight against dirt and leaking oil — in short, as near a perfect bicyclic brake device as scientific research and knowledge can produce. Ask your bicycle dealer about them.

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## King's Crazy (Continued from page 6)

The joy rider grinned. "Whoops — here we go! And with nobody on the brake to keep her from —"

Crash! Above the roaring of the fire came an explosion. Looking back, Hal saw the cabin, a black shadow against a curtain of flame. Behind that black shadow the twin pines swayed and toppled over.

"That was a success," he said proudly.

The bucket gained speed, and Hal's heart beat fast with fear. He had no chance if she jumped the cable.

Suddenly, then, the bucket leaped ahead. Hal knew what had happened. Flames, devouring the terminal, had cut the leading cable, setting Hal's bucket free. Hal gritted his teeth. "I'll hit the bottom going eighty — good night!"

The severed cable, dragging, swirled around a tree and caught. With a violent jerk the tram bucket swung high in the air, and Hal, losing his hold, dropped sprawling.

Sharp pine needles slashed into his face. He flung out his hands, clutching wildly. He struck a tree branch. It snapped under his falling weight. His body struck another branch, and then he landed, stunned, on soft ground.

He lay there for half a minute. Then he got painfully to his feet and felt himself. Two arms. Two legs. "Still working — whadd'y you know about that?"

The fire was halfway down the slope when the joy rider, bruised and bleeding, reached the door of Sir George's cabin. Inside the Bellows establishment a three-ring circus was in progress, and Sir George, still in his nightshirt, minus his false teeth, was master of ceremonies.

Skillibooch was traveling in circles, looking up and barking ferociously. Above him, perched once more on the rafters, fluffing their tails, were Elizabeth, Gladstone, and Victoria.

Sir George, jumping up and down and doing his best to force his right leg into his left boot, glared at Hal. "A fine mess this is," he mumbled. "Git 'at varmint out of here afore I shoot 'im! Gimme a hand wiv these boots! Fave fomefing! Where's my plug hat?"

Sir George gave up the idea of dressing. Unable to decide what possessions to save, he dashed wildly about the cabin, picking things up and putting them down and chattering toothlessly. "Stand up here and gimme a hand! Kitty, kitty — puff, puff — Elivabuff, come down here!"

Hal stood up, quit laughing, and reached feebly for Sir George's shotgun. Then he found a gunnysack. Holding the open sack directly under Victoria's perch on a rafter, he took aim with the shotgun barrel and poked Victoria violently in the ribs. She dropped, screeching, into the sack. "Basket!" Hal exclaimed proudly. "Two points! Fight for dear old Cat's Landing!"

He scored two more goals and swung the sack of cats over his shoulder.

"Come along, Sir George!" he ordered. "Never mind saving anything!"

Down at the wharf, with Skillibooch and the cat cargo aboard, Hal sat in the Bellows rowboat and waited. Twenty seconds later, stepping high, his nightshirt billowing in the wind, Sir George came dashing toward the wharf. The lantern in his left hand revealed the fact that he was wearing his prize top hat. Under his right arm he carried a rifle, a pair of pants, a

shirt, and the mate to the single boot he was wearing.

Throwing his cargo into the skiff, he got one foot aboard; and then, before Hal could show off, a look of terror came over Sir George's face and he clambered back to the landing.

"Heavens!" he gasped. "My teef!"

Sir George and the lantern disappeared in a cloud of gray smoke.

A hundred yards to the south the wall of flame had hit the shore of Kootenay. Stopped by the water, it came on toward Cat's Landing.

Half a minute later, calming Hal's fears, the nightshirt parade again hove into view. This time Sir George was carrying a full set of molars, a fishing pole, and a strip of bacon. Choking, he stumbled into the boat. Hal shoved away and began to row fast.

"You'd better not put those grinders

was ankle-deep in the stern of the boat. "Best luck I ever had!" He prodded the sleeping geologist with his fishing pole. "Git up here," he commanded. "Man those oars, young feller — I'm honin' for a fish breakfast."

Sir George's iron cookstove still stood amidst the smoldering embers of what had once been his cabin. Near-by he found an iron frying pan. While Hal was doing k.p. duty, undressing trout, Bellows loaded the stove with an arm-load of charred wood, greased the frying pan with his strip of bacon, and proceeded to turn out the finest breakfast Hal King had ever tasted.

Later, puffing along on the steep path up Porcupine Ridge, Sir George began to recover his normal good nature. "Dog-gone," he growled, "burned out of house an' home! Thirty years, livin' in that cabin, an' then — flooey — she goes up in smoke. You and your old man are at the bottom of this. You're a jinx, a downright menace, that's what. Dog-gone!"

"It's a tough break," Hal sympathized. "Come along. We may have something left. I saved Dad's cabin."

At the top of the ridge, he looked eagerly ahead, and then his shoulders drooped.

"No luck — the old shack's gone."

Only a pile of charred rock, crumbled from the chimney, showed where Klondike King had once lived and played his losing bet. Hal sighed as he glanced over to where the twin pines had stood. A gaping hole showed how effective the last of his dynamite had been.

"The old gelatin did its work anyway," he continued, looking down into the big cavity. "Soft ground, but she blew sky high."

Suddenly the geologist dropped to his hands and knees. Then, with an exclamation, he slid into the hole.

"What's the trouble?" Sir George demanded.

After a moment's silence, Hal looked up. "Nothing," he said. "No trouble. Our troubles are ended!" He waved a glistening bit of rock. "Take a look at that! Galena — rich silver lead. Sir George, we've hit it! The King's Chance outcrops here!"

"And look here what I'm standing on — solid galena. If the vein runs true it'll be thirty feet on the rake and three thousand feet deep. That means a fortune. That means Dad's two hundred grand and plenty more besides. What's the matter? What are you frowning about?"

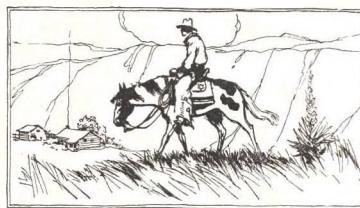
Sir George was scowling darkly.

"What are you frowning about?" Hal repeated. "Why all the crepe? You're a rich man, Sir George! You were Dad's partner on this deal. When we've mined this ledge, you can buy all the false teeth this side of the Mississippi. Cat's Landing will be a boom town, and you own it."

"I know it," the rich man growled. "That's just the trouble. Mine'll open up, lot of humanity'll come swarmin' around, destroyin' the peace — and, worst of all, some day that low-down reptile of a Klondike King will come climbin' off the steamer and from then on life won't be worth livin'."

Hal grinned. "Well, you've got to admit one thing, Sir George. Dad said she's outcrop on the ridge, and here she is to prove it!"

The grumpiest old skinflint west of Nova Scotia looked straight at Hal King. "Young feller, I've known Klondike since before you were even a mere rumor. Till my dyin' day I don't admit that your father has got a brain in his head."



## "Riders of the Rio Grande"

A Western Mystery Serial

by GLENN BALCH

Author of the "Hide-rack Stories"

It's an *American Boy* special, this whirlwind story of how gay, stubborn young Tommy Harris stumbles into a smashing Big Bend ranch adventure!

## STARTING IN SEPTEMBER

*Thundering Hoofs - Masked Riders - Lone Trails*

in, Mr. Bellows. Leave 'em out so you can gnash 'em by hand."

The wearer of the nightshirt glared. "Thif iv no time for funny stuff."

Hal pulled on the oars until the expedition reached a point three hundred yards offshore. Then, drifting, they watched the fire's progress through the one-man city of Cat's Landing. Sir George's cabin flared for two minutes and was gone.

After a while the homeless grouch quit moaning and installed his store teeth. Calmly he baited a fishhook with a chunk of bacon.

"Well, anyhow," he observed philosophically, "the fishin' ought to be good. They'll be comin' up from miles around to see the fire."

The Bellows guess was correct. His first victim was a sluggish whitefish that offered no resistance to capture. A trout, lured by an eye of the whitefish, was the second prize. Thereafter for an hour Sir George Bellows worked hard at the task of hauling in fish.

Hal, slumped in the bow of the boat, enjoyed a nap. Gladstone, Victoria, and Elizabeth were helping each other with the carcass of the whitefish. Freed from the gunnysack, they had retreated to the gunwales with Skillibooch's first assault, and then, between the devil and the deep blue Kootenay, they had turned at bay. The wire-hair sat sheepishly at the end of the skiff.

The wind died down, a light rain began to fall and the fire, checked at the lake shore, was burning itself out.

"That's plenty," the fisherman commented, surveying a trout harvest that

## Signals (Continued from page 19)

third time that bearing had been reported, and it had not changed. Pretty soon somebody would have to change course. And then he saw Crinky jerk convulsively, and stand rigidly with his head fallen back and mouth open, one hand grasping a big cable that led into the searchlight base. He swayed, but the clenched hand would not let him fall.

Wally leaped up the ladder. With blanched faces the men strained away from Crinky—it was death to touch him. Unthinking, Wally threw himself forward. His burly shoulder crashed into Crinky, and instantly it seemed that an enormous steam hammer hit him. They fell together against the iron guard rail of the searchlight.

The men sprang to their help. Wally, who had received just one jolt, staggered to his feet unaided.

"What's the matter up there, Wally?" It had all happened so quickly that Duffer was still unaware of anything unusual.

"Crink's got a jolt from the searchlight current. I'm afraid it's serious," Wally called down. "You better take charge."

"The fleet's bearing is 347, sir. Coming in strong!" yelped the radio man.

Duffer leaped headlong into command.

"On searchlight up there, you two—on the double!" his biting order rang out. "Never mind that ground! Bridge! Change course five degrees and stand by for collision quarters!" That last into the voice tube. "Call Captain Burton, please. Wally, you lower Crinky down to me."

Duffer was in a race with a vengeance. This was his chance. Carefully Wally eased the limp Crinky down the searchlight ladder, knowing that Duffer had three major problems to attend to all at the same time—a grounded and dangerous searchlight that had to go on at any cost, a bearing that showed them catching up on the fleet under collision conditions, and his own chief severely if not fatally shocked.

"Shake it up, you men!" Duffer lashed the two who were fumbling gingerly with the searchlight controls. "I don't like this, Wally! That bearing shows the fleet has changed its course—probably to avoid a steamer lane. Our course now coincides with theirs, and we are the overtaking column—what's the word, up there?"

They were afraid of it—they had Crinky's fate for a warning. Wally was laboring over him unceasingly, trying to restore breathing.

Duffer grabbed a flasher off the radio desk and leaped up on the searchlight platform. Wally watched anxiously as he worked over the limp Crinky. If Duffer got shocked . . . He saw the white flash of a dry handkerchief in Duffer's hand and then *Clash!* went home a copper switch. An enormous beam shot out ahead. The horizon line came out startlingly.

It was deceptive, that horizon line. It looked a mile off but was in fact not over five hundred yards. Their whistle blast was booming out, muffled and hoarse.

"Bearing 347, sir. Close aboard," sang out the radio operator.

Wally started to leave Crinky for the voice tube, but Duffer was already ahead of him.

"Slow down!" the Vermonter shouted. "Right rudder—hard!" Duffer had seen it as quick as Wally. The fleet had now changed back to its original course but they were still within the danger angle. Wally strained his eyes into the pall.

Grandly the guard ship started to turn. Wally could feel her heel, though the fog told him nothing. And then came a muffled hail from one of the lookouts forward: "Sail ho! One point on starboard bow!"

Wally gasped. They were turning in that direction! Duffer's reaction to it was as instantaneous as Wally's own.

"Stop!" he ordered down the voice tube. "Pass the word to haul in marker buoys."

Wally peered under the bridge rail—he was still working over Crinky's body. The great searchlight was sweeping the horizon narrowly over their starboard bow. Then it stopped. Dim outlines of a dreadnaught's basket mast developed like a photographic plate in the gray mist ahead. The *San Antonio* seemed to swoop right at her. The battleship seemed glued in the fog.

Wally held his breath. Duffer eyed her calmly. To reverse was to endanger the next ship astern. To bear left was to get awkwardly in between the two dreadnaught columns and mess up the whole formation. He had to show finesse, yet endanger no one.

"Just a touch of sternboard, Navigator," he said. "Shift over your helm. She'll pass."

She did! The cruiser seemed to hesitate as she glided up astern of the battleship. She seemed alive and trying to make up her mind whether to cut down that tin pot with her sharp prow or let her go un molested.

They were whooping their battle siren with alarm over there. Its shrieks sounded like the *ma-a's* of a lost goat. She had her nose on a marker buoy and couldn't get away. But the *San Antonio* decided to obey her men and be nice about it. Slowly her bow veered off as he rounded by. There was some indignant shouting between the two bridges—then Duffer hailed:

"That's well! All yours, Navigator! Shall I pay out the marker buoy cable?" He turned inquiringly to Wally kneeling over Crinky. For his work was done, and well done, and now he wondered if Crinky were still alive. Wally nodded. Crinky was breathing.

A clipped voice interrupted then: "Pretty work, Sproule! Someone hurt up here?"

They both jumped to salute, for they knew that voice. Captain Burton stood before them, a boat cape thrown over his pajamas and only the gold filigree on his cap visor proclaiming his rank.

"I had to take her, sir," said Duffer. "Lieutenant Sproule's had a bad shock."

"You!" Burton's eyes were wide. Then, after a pause: "Well handled, Holbrook!" He stooped over Crinky. "He's breathing now, sir," said Wally.

"We had no time to send for anyone, but he needs stimulants right away."

"All right! I'll get Surge," Burton



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*It's fun TO KEEP FIT ON A BICYCLE*

said briskly. "Suppose you carry on, Holbrook." He smiled at them both and was gone.

Wally turned to chafing Crinky's icy wrists while Duffer was jockeying the cruiser column into position. He had a guide, now—those red pin points off to port that were huge battleship searchlight rays. The surgeon came up with a sick-bay detail at his back and carried Crinky down. Wally went over immediately and clapped Duffer on the shoulder. "Congrats, Ray. You're a salty officer!" he said. "Now's your chance to show 'em some more!"

"Huh?" said Duffer. He had been too busy to realize that he was playing a star part in a most difficult piece of signal work. Carefully, with cool judgment, he had brought the cruiser column to its position on the starboard flank of the fleet, exactly five thousand yards away, exactly abreast of the Admiral's guard ship, behind him the other cruisers at exactly five hundred yard intervals. He had been barking orders—to the range-finder men for distance, to the lookouts at the pelorus compass for position, to the marker-buoy gangs

for interval. And he had been on his toes through it all, as Fighter Dodson had said he would! He had entered a race, and measured up.

Dawn came and the pin points sparkled through the haze now. You still couldn't see a single ship of the eighteen in formation.

And then suddenly they steamed out of the fog bank and all was blue sky and blue sea in the morning sun. The three guard ships emerged. One by one, the columns came forth. It was breath-taking, that revelation of a whole fleet of gray warships, all in exact formation abreast, all in exact line of column! And after ten hours of steaming through a fog thick as pea soup!

"There goes Comet on the flagship!" Wally hailed, as a hoist of signal flags broke out on her. Those blue, white, red, and yellow squares of the comet signaled attention to general orders for all the fleet. The flags under it read:

"Admiral's compliments to Lieutenant Sproule, San Antonio. Duty complete."

Wally looked with a wry grin at Duffer, who was reading off those sig-

nals at sight, without reference to the code book. Oh, well!

Then they heard a gruff bass voice behind them. "Humph! Little misunderstanding on the Admiral's part, but we'll attend to that!"

Burton stood there. He had come up at the first sign of the fog's clearing to see how the fleet came out of it—and particularly his own column.

A twinkle lurked in his eyes.

"Ensign Holbrook, Surge reports that Sproule will be off duty for some time. Suppose you take her? You do manage to fall overboard, and trip over cleats, and knock down anything the ship particularly values, but we will have to bear with all that. You've shown that you can take Sproule's place, any time, anywhere, just as Radnor, here, can take Dodson's. That's all that counts with me. You'll resume duty, please."

"Thank you, sir," said Duffer and saluted.

After which there were rat squeaks of joy and an informal dance, immediately Burton had left the signal bridge.

## The Oxygen Zone (Continued from page 16)

"sir" to a junior lieutenant there's a hurricane imminent. Rud and Jimmy trudged away with feet as heavy as lead, over to headquarters and up the stairs to wait dismal till Major Churchill stormed past them.

For a solid half hour the major lectured them. He spoke of practical jokes and practical jokers. He spoke of the respect due to a senior officer from a junior. He spoke of customs of the service. He spoke of squadron insignia, squadron pride, and squadron discipline. He even spoke of hams. When it was all over he glared pointedly at Jimmy Wallace, and gave his verdict.

"It is my wish that you two young gentlemen think this over. You're grounded for one month. For one month, I want you to debate the dignity of this squadron's insignia, and realize that your punishment, even so, is light! That's all!"

They saluted. Outside, as they strolled back toward the line of P-12's, Rud McAllister's voice was husky with reproach.

"One month on the ground. We might as well be dead," he complained, bitterly. "And all because of these jokes of yours—no wonder we're famous!"

"I know," Jimmy cut in. "I know, Rud. And I'm sorry." He paused. "But that's not what I'm thinking of now. What I'm wondering is why the major blamed us! He didn't even hesitate! He gave us no chance to say yes or no! We're not the only ones in the squadron who've been known to slip." Again he paused. "Did you also notice," he asked, significantly, "that Keating was down there, and Keating was laughing, and he was the only one laughing?"

Rud whistled. "You mean—?"

"Yes, that's what I mean!" Jimmy exclaimed, savagely. "Who else could have told the major?"

Rud McAllister halted for a brief instant, his face growing steely.

"I think," he said, tensely, "I think I'd like to see Keating."

They found Keating standing beside his new ship, Number 82, ready to take off. He had already noted the approach of McAllister and Wallace. He wasn't laughing—now. He stood, tense and ready, the color drained from his face.

"Looking for me?" he asked, coldly. "Yes, looking for you!" Jimmy nodded ominously. He was barely conscious that a crowd of pilots had begun gathering around them. "I just

wanted to ask you, Keating—do you, by any chance, know what happened to Bing Harris?"

Bing Harris happened to be a former pilot of the field who had unwisely made a practice of informing the commanding officer of certain activities of his comrades. The inference was unmistakable. Keating's face flamed. Someone caught his arm and held it, just as it drew back for a blow. But there was no stopping Keating's voice. "And you call me a 'ham'!" he

## A Champion



MARTIN DICKINSON, 15-year-old Seattle schoolboy, had faith in his ability to construct airplane models. Otherwise he wouldn't have shaped four neat scale models to Bristol, England, and exhibited them at the Twelfth Annual Eisteddfod and Arts and Craft Exhibition of the Wesley Methodist Church.

When Dickinson won first prize over 154 contestants, he was undoubtedly pleased and surprised. But he had prepared well for the competition. In the last year or so, he had built 100 scale models. Furthermore, he was preparing for a career as an experimental aviation engineer. Wasn't he going to West Point—if he could get in—and then try to get into one of the government's experimental stations? Building model planes was only a hobby with him—it was part of his life's work.

The four models that won him the English championship were a Fokker D7, a Curis P6E, and two Curtis A8's, all constructed of wood, pine and mahogany. The P6E had chrome yellow wings and olive drab fuselage and carried the insignia of the 12th Pursuit; the A8, an attack plane, carried four machine guns and bore the insignia of the 90th Attack.

Combat ships, all of them, good enough to sweep down on ancient Bristol and carry away the prize cup in the name of the United States!

stormed. "I ought to take you both down the line! Look at your nails, smeared and caked with paint, and then ask me if I know of Bing Harris."

"Another thing—this last masterpiece of yours was one too many. However it worked out, it was meant for me! Get that? I'm sick and tired of being called a 'ham' by every peanut peddler on this field. It's stopping, understand? Any time you want a dog-fight I'll show you who's a 'ham'!"

He wrestled free of the men who held him and stalked over to his plane. For an instant, Jimmy was tempted to follow. But he didn't. Keating's words had struck home. It was true: they were riding the man. A joke's a joke only if it isn't carried too far. The silence of his comrades proved that. And that telltale evidence on his hands . . .

He sat down heavily on the ground, Rud beside him. They didn't speak. Silently they watched the second flight take off, spiraling up into the sky. Major Churchill had extended the high-altitude work for an extra day, and they were headed again for 30,000 feet. Overhead, far aloft, the first flight had finished its trip and was coming down.

A lone P-12 squatted on the field beside them. On its fuselage was painted a ham! Two mechanics had gone after paint. Aside from the ship, they were alone, and very much alone. Later, the squadron would laugh at the two men who had been caught in their own joke. But not now.

Minutes passed. Minutes of thinking, and brooding, and regret. They hadn't intended such a serious aftermath as this. Some men took nicknames with a grin—even disparaging nicknames. But not Keating. After his near crash, the word "ham" was a slap in the face. Why hadn't they thought of that? Why hadn't they realized that Keating wasn't another Bing Harris?

Jimmy Wallace sighed, stretched, and prepared to rise. But just at that instant a mechanic rushed up to them, white-faced, panic-stricken.

"Lieutenant Wallace! Number 82! We got mixed up in that change the major ordered, and Number 82 got away!" He paused, gasping. "It's awful, sir. She hadn't been serviced yet—and her oxygen tank—her oxygen tank hasn't got enough gas for five minutes up there!"

Jimmy Wallace and Rud McAllister froze. Instantaneously, the same picture came to them both. Keating was in 82. Keating, headed for an hour's

jaunt at 30,000 feet! Just enough oxygen to get there, and then—black specks in his eyes, bursting lungs, nausea. Unconsciousness. Spinning down.

Someone had to get up there, *fast!* Someone had to signal Keating down before it was too late! And who? The first flight, now coming down, was still five thousand feet in the air. Only two pilots remained, and both were grounded, forbidden to fly. And the only remaining ship, with the ludicrous picture painted on its side, had been stripped of *all* its oxygen equipment in order to accomplish the reassignment.

Rud jumped first. His voice bellowed at the mechanic.

"Get that P-12 ready! Gas her up, quick! And get some chalk! Big letters . . . on the fuselage . . .

'OXYGEN TANK EMPTY. COME DOWN!'

He leaped to his feet, but Jimmy Wallace suddenly gripped his arm and held him back.

"You think that would work? After what's happened?" He laughed, harshly. "Keating would read that and keep right on going. Just another joke from you and me. It won't work! And there isn't time to service her!"

He burst into a run toward the P-12. Then, as he scrambled over the side, into the cockpit, he suddenly halted, shouting:

"Rud! I've got it! This ship! The picture we put on here! And Keating—what he said about a dog-fight! He'll be after me like a lout!"

The Wasp motor burst into a roar. Jimmy revved up, sitting hard on the brakes. No time for warming. He swung the ship around into the sky with a winging chandelle. Twice the cold engine choked.

He raced across the field, tail up. The ship lifted, chewing straight into the sky with a winging chandelle. He shoved the nose as high as he dared, then stared aloft at the tiny wings.

Five thousand feet. Six thousand. Seven. He swept on up past the first flight with a roar that shocked its pilots.

Ten thousand. Fifteen. It was bitterly cold. He watched those ships overhead with eyes that were glazed now, and hard. He was entering the oxygen zone. If only—if only he didn't go blotto before he reached Keating.

Sixteen, eighteen, twenty thousand, with the others at twenty-one thousand now. Black specks danced before his eyes. Someone with a huge club was pounding him on the head, on the chest, in the stomach. Dizzy. Reeling. Half frozen, and strangling for air.

The specks were almost a black screen as he drew level with Keating at twenty-four thousand feet, and knew he had Keating's attention.

He flipped the P-12 on her side, and the fuselage design flashed up in the sun, mocking and taunting. Feebly Jimmy Wallace wagged his wings and shook a clenched fist. Keating stared down, amazed and angry. Then Jimmy's hand fell limp in the cockpit, and his P-12 toppled off in a wild spin.

But Keating was following! Furious. Pounding down with a blind anger that forgot everything else in the world except the maddened desire to reach Jimmy Wallace and battle him out of the skies! Dog-fight! The challenge had come at last! Now the squadron would see who was a ham!

Keating didn't suspect anything was wrong until Jimmy's P-12 had spun so

far that the wings were in danger of stripping off. Puzzlement tempered his anger as that ship whipped down, going around and around, like a lifeless bird. Apparently, the idiot Wallace was up to something new! All he could do was keep following down, and hoping!

Then, suddenly, Keating choked and gasped for air. He turned his oxygen valve wider. With the discovery that his own oxygen was gone, came the horrible realization that he had seen Jimmy Wallace at twenty-four thousand feet, without an oxygen mask! Keating groaned. He stared down again at the whipping P-12, and the real purpose of Jimmy's challenge came to him.

Far below, Rud McAllister was almost ready to cover his eyes with his hands. That spinning P-12 had grown from a faint speck to the trim, normal outlines of a pursuit ship. Rud knew what had happened. Like an irresistible magnet, the whirling ship held his fascinated gaze.

Down it hurtled, toplike. Another three thousand feet would settle it. If Jimmy didn't pull out soon . . . The P-12 suddenly faltered, wavering. She straightened into a steep dive, swinging a wide, skidding turn, and then staggered back to normal, every strut and guy in her body creaking, but miraculously holding together. Jerkily, now, she settled to a glide.

She hit the ground hard, full on her wheels. Two bounces, high into the air. Then a slight jouncing dip, and over she went, upside down, pulverizing her fuselage to kindling.

Rud McAllister dragged the unconscious Jimmy from the wreckage just as the first licking tongue of fire played up from the engine. Jimmy was unconscious, but the indomitable Wallace grin feebly curved his lips.

The field ambulance came up. So did Major Churchill, and the observation and bombardment squadrons, and the guard and telephone operators, and all the rest of them. Especially Major Churchill, who was stumbling furiously around muttering something about: "He ought to be court-martialed—and decorated! The young idiot!"

Then, as Keating's wheels touched ground, Jimmy opened his eyes.

"Jimmy! Are you all right? Okay?" Rud's voice nearly choked. Ace Lindsay bowed over a half dozen mechanics in the rush to Wallace's side.

"Okay?" Jimmy propped himself up on an elbow. He shook his head groggily, then stared up at Keating.

"Sure. How are you, Ham?"

Keating grinned. He bent over and clasped Jimmy's hand.

"And the ship?" Jimmy went on. "How's my ship? I guess I didn't leave an awful lot of it, did I?" His lips tightened. He beamed up at Keating, and increased the pressure of their hands. "Don't tell the major, Ham," he mumbled, "but I was sort of hoping she'd get pulverized like that. See? Something I painted—something I erased. It wasn't much good."

"I see," Keating said, very quietly. "Let's shake again, Jimmy—shall we?"

Jimmy nodded, and the hands tightened.

And Major Churchill, who hadn't the faintest idea what they were grinning about, tilted back on his heels and produced a creditable grin of his own.

## Extra! Extra!

Bonehead Jim Tierney, retired detective, has given up his bass horn for a piccolo! But his devotion to art doesn't prevent him from going out after one of New York's toughest mobs! Next month:

### "Tierney Reads the Stars"

By John A. Moroso

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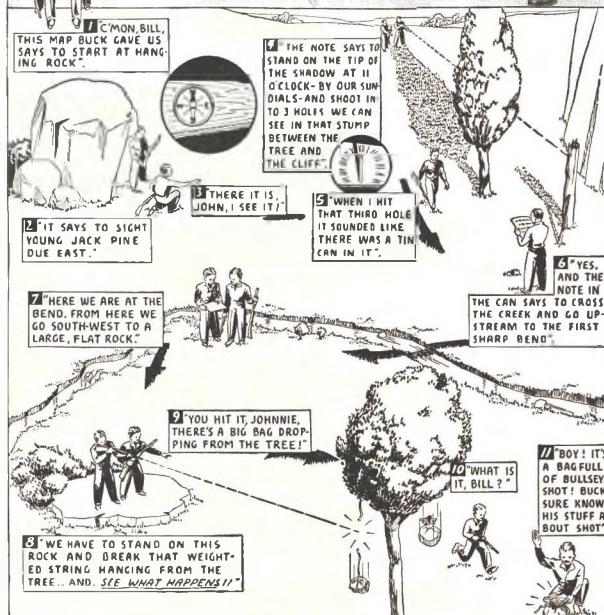
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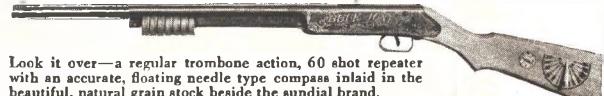
## The TREASURE of BULLS EYE BEND

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TREASURE OUT  
THERE—NOW  
GO GET IT!!



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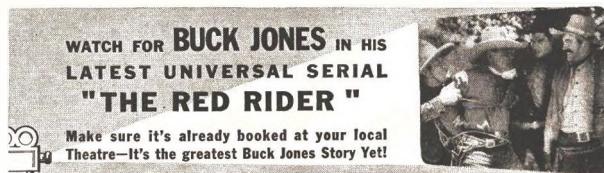


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Illustration by

EARL WAREHAM

*They let out a whoop when they saw and smelled what was on the fire.*

THE four of us—all high school juniors and seniors—were returning from a day's hike, toting an outdoor grill, a coffee pot, and a frying pan. We were the Shovel Club, Inc. But we had made progress since the day when we had cooked our first outdoor meal on an old shovel—now we sported a frying pan. As we crossed Maple Avenue we met Jack Harmon's father.

"Well, how's the cooks' tour?" he asked with a twinkle in his eye. "There was a rumor round town today that you burned up your lunch in the camp fire."

"You're thinking of four other fellows," grinned Lloyd Davis. "You should have seen what we had to eat—broiled chops, fried potatoes, and the swellest coffee you ever drank."

"Well, that's good news," chuckled Mr. Harmon, "for I told Jack's mother she'd better be ready for a starving hiker tonight."

"Fine!" Jack broke in. "I've picked up another appetite. But I ate plenty at noon. Dad, if you ever tasted one of our meals you'd never kid us again about cooking."

"Is that an invitation?" Mr. Harmon shot back. "Name your day."

For a moment we were stumped. Cooking for company at an outdoor meal was something more than cooking for ourselves. But Lloyd settled the matter.

"Tell you what, Mr. Harmon—you get our fathers together and take us up to Lake Mercer next Saturday afternoon and we'll put on an outdoor supper for you. If it's good, you pay for the stuff—if we spoil it, we'll pay for it."

"Fair enough," Mr. Harmon agreed. "I'll assemble your dads and while you fellows cook, we'll go fishing and get something to fall back on."

The Shovel Club immediately went into a huddle. A referee might have penalized us for taking too much time, but we planned our menu right there. Then on Saturday morning we made our purchases and assembled our equipment.

At two o'clock, Mr. Harmon and Mr.

Davis drove up in their cars. The food and equipment were stowed away and two boys and two men went in each car. The fathers and sons were purposely mixed up.

As we drove away, Mr. Harmon called back to Mrs. Harmon: "Be ready to feed us when we get back. We'll probably be good and hungry!"

We boys smiled grimly and said nothing. The way for cooks to cure a kidder is to feed him.

Our ride to the lake took an hour. As soon as we got there, the men got out their tackle and started down the lake to fish. Supper, up there on the hill, was scheduled for six o'clock.

"Well, fellows," said Lloyd, "the first thing is a fireplace and then lots of wood."

So we scooped out a shallow hole in the ground about 20 inches long and 15 inches wide. We piled up a wall of flat rocks round three sides and then laid two iron bars across from one end to the other. It was about ten inches from the level of the bars to the bottom of our fire box. The outside of the fireplace was well banked with dirt and we rolled a big flat-topped stone over close to one end of the fireplace so we could move kettles of food onto it after they had cooked.

Then we started the fire—a big one. Lloyd and Jack kept adding wood until we had about four inches of hot coals, and Kenneth Maxwell and I gathered a lot of short light wood for a reserve to use during the cooking.

At five o'clock we began actually to get our meal. Jack was assigned the vegetables. Lloyd took care of the steak. I was in charge of the salad. Kenneth was to make the coffee and "set the table."

We all pitched in and helped Jack shell about four quarts of lima beans. Then Jack husked eight ears of golden bantam corn and slit the rows of kernels off the ears with a sharp knife. The beans were put in one paper bag and the corn in another, and both were set aside until we had a kettle of boiling water ready.

I now peeled our six large ripe tomatoes and cut them in quarters,

# The Shovel Club

## Accepts a Challenge

by

R. B. MacFadyen

placing them on a bed of coarsely shredded lettuce in a big aluminum bowl. On top of the tomatoes, I tossed four large onions finely sliced. Then I covered the bowl with a damp cloth and put it in a shady place. I had my dressing all ready, but didn't want to mix it with the salad until just before we served it.

At five-thirty Jack started his succotash, which was made of the lima beans and corn. He first put the shelled beans into boiling water—just a little more water than was necessary to cover them—and added a teaspoonful of salt. Then at ten minutes to six he put in the corn; no sooner, for tender corn cooks very quickly.

In the meantime Lloyd had been working with two small but thick T-bone steaks. They were two inches thick. Lloyd rubbed both sides with a slice of onion in order to give the meat an extra good flavor. Then at a quarter to six he spread his broiler on the fireplace and put his steaks on it. Immediately they began to sizzle and brown.

Lloyd took care to have only live coals—no flame—under the meat. After one minute of cooking, he turned each steak with a long fork and spoon—carefully, so that he wouldn't pierce it and let the juice run out. A minute on that side and then he turned them again. He reversed those steaks five more times, at two-minute intervals.

WHEN the meat was almost ready, Kenneth started the coffee by putting ten tablespoonfuls of coffee in the pot with ten cupfuls of cold water. Later, when this came to a boil, he moved the pot back on the big flat stone and put in a half cupful of water followed by a pinch of salt. This clarified the coffee so that it was as clear as amber after it had stood about ten minutes.

At this stage, I started mixing my salad with a dressing I had got ready at home and brought in a small jar. It consisted of one rounded teaspoonful of sugar, one level teaspoonful of salt, two-thirds teaspoonful of dry mustard mixed with three tablespoonfuls of vinegar. To this I had added six teen tablespoonfuls of salad oil and then I had shaken the whole mixture vigorously. I stirred and tossed the vegetables with two forks after I had poured in the dressing, until the whole salad was glistening.

By this time the men hove in sight. They let out a whoop when they saw and smelled what was on the fire.

"Let me at that steak!" Mr. Maxwell yelped as he bent over the fire and took another big sniff.

"If this meal is as good as it looks," said Mr. Harmon, "I'll take back everything I said about the Shovel Club's cooking ability."

Mr. Davis and my dad just stood round licking their lips.

"How about those fish you were going to fall back on?" Lloyd asked as he turned the steak for the last time.

"Here they are," grinned Mr. Harmon. "Six little ones. But I'll take tender."

There was considerable action round the fire now. Ken spread the plates—china ones, by the way—on the ground near the kettles of food. Jack put a big lump of butter in the succotash and stirred it while it melted. Lloyd transferred his steaks to a big baking pan and covered their tops with thin slices of butter. Over the butter he dusted dry mustard. On top of this he shook a little paprika. With a table knife he spread this mixture rapidly until it melted. He turned the steaks over after that and repeated the operation. Then he tipped his pan a little and let the new made gravy run down at the end of the pan where he could add a little lemon juice and stir it into a savory blend. Finally he turned to Mr. Harmon and with a flourish handed him a big knife and fork.

"The Shovel Club appoints you official carver," he announced. "All we ask is a square deal."

What a meal we had! It makes me hungry to think of it now. Thick portions of steak oozing their red juice! Wonderful succotash! Cool, sharp salad—on the same plate, of course. Buttered rolls and coffee. Some of the crowd toasted their rolls on the broiler. Of course everybody yelled for seconds and there was plenty to go round.

For dessert we had a big watermelon. You know the kind—red, crisp, juicy. Um-m-m!

It was a mighty comfortable crowd that lay under the trees. Our dads were almost purring with satisfaction, and we of the Shovel Club couldn't help blushing with pride.

"You fellows are crackerjack planners," remarked Mr. Davis. "But how did you manage it all? You must have brought everything in the kitchen."

"Well, let me read you our list," replied Lloyd as he pulled a little note-

book out of his pocket. "We made this up after we had decided on our menu and each item showed us what we needed in ingredients and dishes. This is the cooking equipment:

"Bowl for the salad; coffee pot; kettle for the beans; bread board; saucepan; big baking pan; two sharp paring knives; one kitchen carving set; two long-handled spoons; eight plates; eight cups; eight saucers; knives, forks, and spoons; broiler.

"Here is the list of supplies:

"Four quarts unshelled lima beans; 8 ears corn; 6 big tomatoes; 4 onions; 2 heads lettuce; 1 watermelon; 2 steaks—2½ pounds apiece; 1 pound butter; 1 pint thin cream; 1 dozen rolls; 1 jar salad dressing; mustard; 1 lemon; salt; pepper; lump sugar; paprika."

"Is that the list we have to pay for?" asked Mr. Harmon.

"That's the list," Jack nodded, "but it won't cost so much. We took all the seasoning from home."

"Well, whatever it costs, it's worth double!" Mr. Harmon declared, getting up to make us a deep bow. "Gentle-

men, I never ate such a grand meal before in all my life."

It didn't take us long to clear up the camp and when we had finished there was still enough daylight so we could take a short swim.

Of course our dads bragged a lot about our party. They paid our bill of \$5.87 with enthusiasm—and cash, too, you understand—and told us we'd get the same financial support any time we wanted to stage another party. But the big surprise came a few days later. A letter came to the Shovel Club in care of Lloyd Davis. It read:

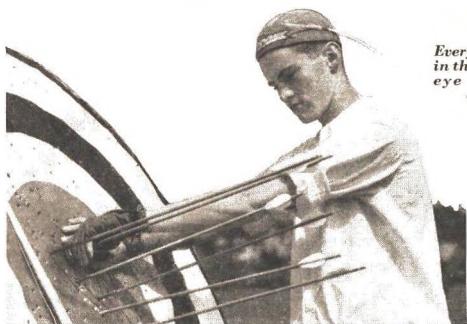
Honorable Members of the

Shovel Club:

May we, your well-fed fathers, have the pleasure of your company at the Yale-Princeton football game this fall. Transportation, meals, tickets, and complete entertainment will be furnished.

Signed—and so on.

We didn't need to go into any huddle to decide about accepting that invitation—no, sir! We whooped louder than our dads did when they smelled our hilltop steak.



Every arrow in the bull's-eye except one!

## His Shafts Find the Mark

by KEN BINNS

Want a full page of information, by Art Young, famous hunter, on how to make your own archery equipment for \$3? We have it for you—with tips on how to shoot. Send five cents to the Archery Editor, American Boy Magazine, 7430 Second Blvd., Detroit, for a copy of ARROWS IN THE BULL'S-EYE, by Art Young.

Then have some real sport!

WHEN the nation's best archers step up to the firing line at Storrs, Conn., Aug. 13-17, to battle for the national championship, watch Ralph Rillman Miller, University of Washington freshman. A few years ago he failed to pass the Boy Scout archery test. Today he is national champion.

Miller is a champion at 18 not only because he has a keen eye, steady muscles, and a good competitive temperament, but because he has studied the fine points of archery. As he walks up to the line for his practice shots, you'll notice a piece of adhesive tape stretching across his jawbone to his neck muscles. That's to prevent him from elevating his head and spoiling his aim.

You'll see him take his stance, feet spread, right foot forward—he's left-handed—and draw back his bow until his left thumb comes back to the lower line of his jaw. He'll sight, then, not at the target, but at a wood slab stuck in the ground between the firing line and the target. If his first shot is too low, he'll walk forward and move the



Bending this bow is like lifting 46 pounds.

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**FOURTH PRIZE**  
—Electric Headlight, complete with battery.

**SECOND PRIZE**  
—A pair of U. S. Giant Chain Tread bicycle tires.

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August is the wind-up for this great contest. We have extended the time to Sept. 15, which gives you 15 extra days. All you have to do is to write a story on the subject, "My Adventure on a Bicycle." Or tell about some happening that shows the great value of a bicycle. The most thrilling true story gets the prize. Get busy.

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ELECTRIC HORN  
ELECTRIC LIGHT

### Follow These Simple Rules

Any boy or girl under 18 years of age is eligible. Manuscript must be less than 300 words, on one side of the paper only. All manuscripts must be accompanied by coupon herewith or a copy of one properly filled out. Send to address on coupon.

Each story must be a true experience of the writer or some one he knows. Your story will be judged for interest only. You don't have to be a literary shark to win.

You can enter one story every month, if you desire, no limit, except every story must be accompanied by a coupon. The last day to mail letters for this month is September 15th.

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Strive for this layout position!

## GET UP IN THE AIR!

An Interview With Dick Degener, National Intercollegiate and A. A. U. Diving Champion

by FRANKLIN M. RECK

THIS is a story of take-offs, flights, and landings, of loops, rolls, and Immelmans. But mostly it's a story of take-offs.

Fancy diving is an exact science. It requires co-ordination, timing, balance, and suppleness. Behind every two-and-one-half somersault lie hours of practice in gym, sand pit, and pool. But the success of every dive is determined before the diver's toes part from the matting on the end of the board. His fate rests with the take-off. To illustrate:

At the 1932 National A.A.U. swimming meet in the Yale pool, Dick Degener, representing the University of Michigan, stood at the back end of the ten-foot board, ready to do the forward two and one-half somersault. He was competing against Mickey Riley and Harold Smith of the University of Southern California. Spotted in different parts of the pool were five judges who would critically view the dive from all angles. If his body twisted ever so slightly, if he turned a few inches too far, if his posture were incorrect, his toes not pointed enough, some of the judges would notice it and mark him down.

He went into his run, hit the end of the board, sailed into the air and be-

gan turning. Two and one-half times his body spun, then opened out and landed straight for the water.

As the water closed over his pointed toes, there happened something that had never happened before in the history of fancy diving. Every one of the five judges held up a card on which was printed the figure "10." In diving 10 is the highest score that can be given.

Now shift the scene and time to the 1932 Olympics in Los Angeles, a few months after the A.A.U. competition.

Again Degener stood at the rear of the ten-foot board, ready to do the two and one-half, this time with the Olympic title at stake. He had the same men to beat, but the circumstances were slightly different.

For one thing, there were more competitors. The dives had taken longer to run off. Since eight-thirty these boys had been diving and waiting their turn under the hot sun, and now it was almost noon.

Twice Degener had started up the ladder and both times the announcer, who had to make his speech in several languages, had waved him back. Degener was stiff and a bit tense.

He sailed into the air and turned. But as he entered the water his legs slapped slightly—the telltale proof that he had turned too rapidly and too far. The judges held up 6's and 7's, and Degener lost the Olympic championship.

The difference between the dives in Los Angeles and at Yale were mainly in the take-off. At Los Angeles Degener feared that he had become stiff. He decided, perhaps unconsciously, that he'd have to give his dive a little more zip to counteract the long wait. He

pounded the board too hard—and lost a title.

The take-off, then, is important. If you're eager to improve your diving you can well copy the form of champions. Degener holds all American championships. He is national intercollegiate champion. He holds the National A.A.U. titles both off the ten-foot and three-foot board. He is the most finished diver in the world.

To Clarence Pinkston, swimming coach at the Detroit Athletic Club, goes the credit for recognizing Degener's possibilities. He saw him perform at a high school meet, and while Degener placed low in the competition instantly picked him out as the boy most capable of development. There was something about the way Degener handled himself in the air that marked him as a comer—something that Pinkston, himself a former Olympic diving champion, spotted instantly.

Pinkston instantly picked him out as the boy most capable of development. There was something about the way Degener handled himself in the air that marked him as a comer—something that Pinkston, himself a former Olympic diving champion, spotted instantly.

But Degener had a long trial of work to plod before he was to reach the top. He had to learn the handstand to improve his balance. He had to do calisthenics. He had to learn the details of form. He had to take punishing blows from the water. Most important of all, he had to learn how to take off, in order to get the proper height—enough height so that he could complete his loops and twists before the surface of the water rose up to meet him.

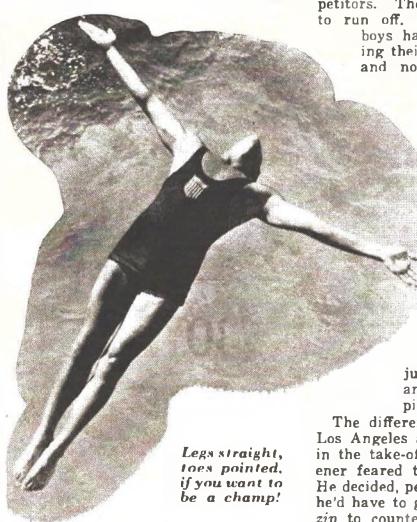
Now etch this picture of Degener's take-off on your mind:

After his dive has been announced he steps onto the board far enough back so that his three steps and hurdle step will bring him to the end of the board.

He stands there in an unstrained position, head up, arms at sides. He doesn't stand there long because that would indicate uncertainty and the judges would mark him down.

On the other hand, if there's a crowd interruption, he doesn't hesitate to relax and start all over. For instance, just as he was starting his run at Yale somebody tooted a horn. The sharp blast broke a dead silence. It would have disconcerted any diver. Degener stopped in the middle of his run, walked back to the end of the board, and started again.

Degener takes three steps followed by a hurdle step. All four steps are



Degener works out Miami. It's the half gainer.

smooth and forceful. He starts with his right foot and takes off for his hurdle step with his right foot.

The hurdle step is important. It's the last high step that brings both feet down on the end of the board. The body should go about two feet into the air, and the toes should be pointed during the flight. The body should be erect, even though the eyes are gazing down to gauge the edge of the board.

Now let's leave him mid-air in his hurdle and see what his arms have been doing. His arm movement during the run is designed to add height to his hurdle step and his dive, and give flowing rhythm to his performance. There's nothing jerky about fancy diving. It's all one continuous movement.

With his first step his arms come forward, palms down, to a horizontal position. As he takes his second step his arms swing outward, back, and down, just in time to swing sharply forward and up as he takes off on his hurdle step. This upward swing of the arm helps him into the air.

Now comes the all-important moment of the run. He's in mid-air, arms in front of him and slightly above the horizontal, body erect, toes together and pointed down. He's coming down and his toes will land an inch or two from the end of the board.

His objective, now, is to "push the board to the bottom." In other words he wants to spring that board down as far as it will go, so that it will throw him high into the air.

Let's take it slow motion. His toes hit the board and the weight of his body, falling from a height of two feet, bends the Oregon pine. He lands with tensed muscles. His feet flatten out

until his heels touch. He rises again on his toes as the board starts to throw him.

His arms? They have made another circular swing, outwards and back and down, so that as he starts to leave the board they're ready to swing forward again to help him into the air.

And now his body is sailing toward the ceiling, ready to go into goodness-knows-what maneuvers.

But here's a fine point—a point you'll have to master if you want to make a perfect take-off. When you take off for your hurdle step, the vigor of your spring starts the board to vibrating. By practice, you must so time your hurdle step that you won't meet the board as it is coming up. You must meet it as it is going down, so that your falling weight will push it to the very bottom.

That's Degener's take-off. His four steps and his two circular arm swings—carefully timed and co-ordinated—have become second nature. But there was a time when he had to practice each move painstakingly and consciously, just as you will if you want to improve your fancy diving.

You can't learn air maneuvers by looking at diagrams. You must have a coach. You must work out with better divers who will criticize each move you make.

But one more tip Degener can give you. Don't relax until you're completely in the water. Degener holds his position, toes pointed and knees straight, until his hands touch the bottom of the pool. And then, if his take-off has been good, he can rise to the surface with every confidence that he'll glimpse nines on the judges' cards.

## Chicken Wing

(Continued from page 10)

said in a flat, level voice, "as though you're giving Mike the run-around." He walked away.

It was no longer "Colonel." Coach! Doak knew then the extent of Tubby's revolt—and his faith in a pitcher who had as little "stuff" as Doak had ever seen. For a moment Doak felt beaten and alone.

He sat with the captain the day before the Vanderbilt game and picked the line-up. Tubby was as cold and reserved as though he were talking to a stranger.

"If Brad's right," Doak said, "we'll start him."

"Suppose he isn't?" Tubby's tone was clipped, impersonal.

"I'd rather take a chance with Lann than with Handel or Votee."

"How right does Brad have to be to be right?"

"I'm going to make you the judge of that," Doak said slowly. "You'll be warming him up."

"Colonel," Tubby said after a moment, his voice husky, "I made a mistake. I'm darned sorry."

Under a spring sun that mellowed the field Doak watched his pitchers warm up and went through the agony of doubt that comes to every coach before the first game of the season. The umpires appeared. The warm-up ended. He watched Tubby's face as the catcher came to the bench.

"Bradley," Tubby said. "This ought to be one of his days."

Doak, catching Michael Lann's eye, motioned him to the warm-up pen outside the right-field foul line. Some of the worry left the coach's mind.

It seemed, for the first two innings, that today Bradley was hot. He was pitching purposeful, serious ball. His fast ball had a hop, his control was good, and he was able to play with the corners. Vanderbilt didn't get a man on. He came to the bench after pitching the second and grinned at Doak.

"Told you I'd be there, didn't I?"

Doak knew the danger of over-confidence. "That other boy's pitching ball, too," he reminded his hurler. In fact the other boy was good enough to blank Vinewood in the first and blank her again in the second. Bradley stood up and shed his sweater.

"Coach," he said, "this is just a breeze." He breezed a ball for the inside corner, and the first batter rammed a double into left field.

Doak felt the touch of a warning chill. Tubby came from behind the plate, talked to the pitcher and went back. Vinewood now had to guard against a bunt that would advance the runner to where he could score on a sacrifice hit. Bradley's arm went back. First and third basemen swooped in and the shortstop ran over to cover third. But with the whole infield set to kill a bunt Bradley threw the ball over his catcher's head and wild-pitched the runner to third.

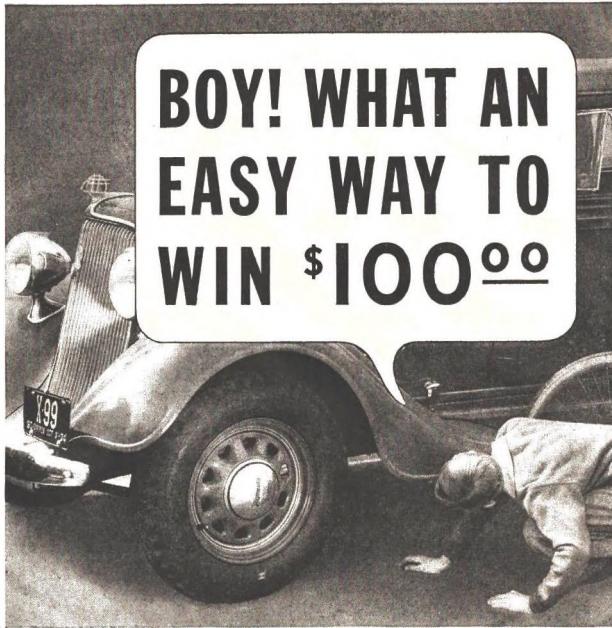
Again Tubby came down to talk. Bradley's grin was gone. He tried the outside corner and it was almost another wild pitch. Ball two!

Jim Doak was granite-faced. One of the gamble had probably gone wrong. With two balls and no strikes the next pitch would have to be over. Twice he saw Bradley shake his head. He could guess what was happening. Tubby was calling for a curve across the plate and Brad was afraid to try it. Losing his nerve. Forced to take a chance that with two strikes and no balls the batter would let the next one go.

And so the ball was grooved. Another double zoomed out into left. Vanderbilt had a run.

Again the situation was made to order for a sacrifice bunt. This time the Vanderbilt man at the plate did bunt. The ball rolled lazily straight out into the diamond. Bradley, jumpy with frayed nerves, dropped it twice. Runners were on first and third.

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3 Winning essays will not be published and no entries will be returned. Nor will the Plymouth Motor Corporation correspond about them with contestants.

4 All entries must be received by Plymouth Motor Corporation by September 28, 1934.

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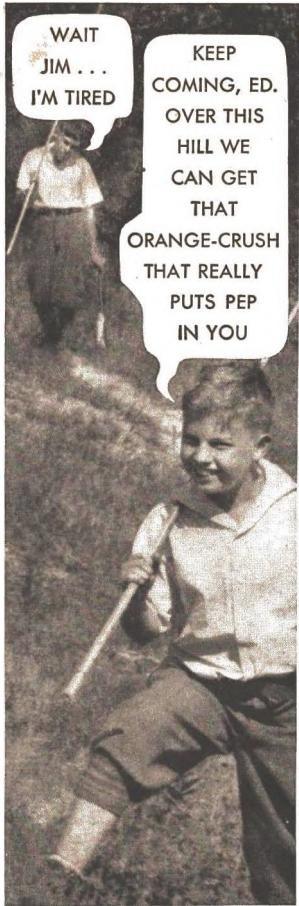
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If you asked a doctor he'd tell you what to get. And it wouldn't be cheap truck that robs you of pep. He'd tell you: "Drink carbonated Orange-Crush . . . made with real, fresh oranges!"

Zippy, ice-cold, flavor of genuine oranges. Pure. *Good for you!* Because it contains energy and Vitamin C. Orange-Crush carbonated beverage is accepted by the American Medical Association, approved by Good Housekeeping Magazine's Bureau of Foods, Sanitation and Health. *It's got to be right!*

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# Orange-Crush



5¢  
Made With Real Fresh Oranges

Made With Real Fresh Oranges

Made With Real Fresh Oranges

Jim Doak's jaw was grim. There was Bradley, trying to crowd into nine innings all the preparation that should have gone into those long practice weeks.

Stacy scooped a grounder and forced the man who had been on first. But the second run was in.

The score keeper marked the run. After that he marked an out on a fly to center. With two out Doak thought Brad might weather it. Gambling again, this time on the fact that two were out, he watched a ghastly record grow in the book. A base on balls, a single, and then the third double of the inning. At last Tubby got under a high foul and the side was out.

Five runs! The coach could picture the editors of *The Vineyard* mixing acid and ink. Bradley, trying to appear unworried, found a seat.

"They caught me a bit off."

Doak dared not trust himself to speak. He had gambled on a quick third out and the gamble had cost him three runs. Now he had to gamble again. Many pitchers have a bad inning and are afterwards invincible. Vinewood was blanked again and Bradley went out to pitch the fourth.

He took his time. Twice he surveyed the infield. Twice he knocked dirt from his spikes and fussed with his belt. To the stands he must have seemed supremely confident, a pitcher who had gone through a tornado and come back undismayed. But to Doak, watching a hand that fussed with a belt—Bradley let the ball go.

The batter sent a long, low, driving triple into left center.

The game, Doak knew, was lost. Thrown away by a trifler. The infield gathered about the pitcher. Tubby looked back across his shoulder toward the bench. Doak nodded.

Michael Lann, quietly, without haste, came across the grass toward the mound.

Tubby walked to meet him. The captain's arm went around the shoulders of Michael Lann, and when he went back to the plate his stride spoke of a game won rather than a game lost.

Michael was in position. His crooked, awkward arm swung forward. The man at the plate let the ball go past.

"Strike!"

Again the arm went through its queer performance. The batter lunged. Steinway at third took the ball cleanly and the runner on third was trapped and run down. But the batter who had hit that fielders' choice had gone to second.

Doak didn't move. His team had suddenly begun to play snappy ball. A slow ball wobbled toward the plate and the second man was out on a fly to Stacy. Another cripple crept down the pitching fairway. Tubby danced back under a high foul and it was three out.

A few derisive cheers came from the Vinewood stands.

"They're giving us the bird," the score keeper cried angrily, gazing with hot eyes at the crowded stands.

Doak took it stoically. A campus that read *The Vineyard* was not apt to rejoice over a 5-0 score. His hitters hadn't hit, and now he sent them out with instructions to wait. Waiting failed, too. The score was still 5-0 when Michael Lann went out to pitch the opening of the fifth.

The Vanderbilt coaches called shrilly: "A short bat, Mac."

Doak nodded. A short bat was the best way to meet a slow ball and poke it over the infield. He waited.

A chicken-wing of an arm flapped. The batter jabbed and missed. The arm went through another stiff gyration and the batter fouled. A gas-pipe arm cracked and the batter popped to Steinway.

Doak spoke to himself, in awe. "They

can't time it even with a short bat!" One man grounded to short and another was out on strikes. The cheers that broke out held a sudden undercurrent of warmth.

Vinewood, in her half of the fifth, got a run on a hit, an error and a sacrifice. Tubby and Michael walked out together, and the stands were on their feet. Cheers for Michael Lann! Doak, veteran of many campaigns, felt the warm heat crawl up his spine.

The first batter was at the plate with a choked bat. Michael's arm moved with its stiff-jointed wrench. The batter, punching at the pitch, slapped the ball into the dirt in front of the plate. Tubby, darting out, made a snappy pick-up and throw. One down.

The second batter, stepping to the plate, heard call from the coaches. He stepped away and glanced toward the Vanderbilt bench. When he came back to the batter's box he no longer had his bat gripped short.

"Squirming," Doak said in an undertone. "They don't know what to do." The warmth from his spine crept to his heart. A pitcher with the will to give his best!

A chicken-wing ball limped in. The batter, swinging from the hips, rolled a grounder down to short.

"Two out," the score keeper chuckled.

"Oh, you Lanny boy," a voice sang from the stands.

The third batter cracked a single to center.

Doak sat very still. Presently his hands moved slightly as though he were talking to himself. Here's where the trouble started. A base-runner could watch that slow, cramped arm and turn burglar. There was just a remote chance that a fast man might be able to steal home from third. A hit off Michael Lann was almost as good as a run. Today Vanderbilt would find it out. Tomorrow every school that played Vinewood would know it. And that's how a coach gambled and lost.

Out on the mound Michael faced the plate and kept glancing toward first. The runner, disdaining, edged off. He had a lead now, a big lead. Without warning, Michael took a quick step toward first and threw. The arm, no longer cramped, was a darting snake. The ball was a bullet aimed down around Stacy's knees. The first baseman, with that blazing throw in his hands, stooped and dug the ball into a dismayed base-runner trying to get back.

The squad had gone to the locker room. Doak paused in the doorway.

"No need to worry about today's game," he called. "Lann gave them two hits in six innings."

He went in to his office, and cut a piece of cardboard and inked in letters. He had finished when Tubby entered.

"Glad you came along," the coach said. "Got a question or two I'd like to ask. Do I look particularly ancient?"

"Ancient?" Tubby repeated, puzzled.

"Decrepit. Senile. Muscle-bound between the ears. Five weeks ago I wanted to drop Lann from the squad; ten days ago I couldn't see how he could get through a game. First it was because of a broken arm he didn't have. Then it was the lack of a fast ball that he did have. If it hadn't been for you—"

"Colonel," Tubby said, embarrassed, "you'd have doped it out yourself."

"I did a nice job of doping," Jim Doak grunted. "You heard what Lann said—'You didn't ask to see a fast ball.' That's the low-down, Tubby." The coach took the blotter off the lettering. Crossing the room he tacked the cardboard to the wall. "A coach can find enough ways to gamble without stumbling around in the dark and trying to be a mind-reader. Broken elbow! No speed!"

He stepped away from the wall. Tubby read the letters on the cardboard: "A—U Y T."

"What does that mean?" he asked. "It means 'Ask—Use Your Tongue,'" Jim Doak replied.

Tubby didn't know it at the moment but he had witnessed a death and a birth. "Graveyard" Doak was gone. "Tell-me" Doak had been born.

The Vinewood stands roared.

"They've gone nuts," the score keeper gulped.

"Lann—caught him off first—didn't he?" Jim Doak asked.

"Picked him clean," the score keeper exulted.

Doak blinked. So he had actually seen it! Tubby and Michael came in from the field—Tubby in a daze, Michael with that slow smile. The coach, his eyes still a little glazed, made room for them.

"Where did you get that speed, Lann?"

"Why, I always had it."

"Keeping it hidden?"

"I was holding it in reserve. I thought I might get enough slow-ball change of pace with a bent-arm swing so that I wouldn't need speed. Anyway, if I did need it I'd have it. I could spring it as a surprise."

"You did," Doak said warmly and looked at Tubby. He was thinking of *The Vineyard*. They'd probably boil him in oil. Why hadn't he started Lann? Well—his soul, for the first time in weeks, was filled with a mellow peace. *The Vineyard* wouldn't have much chance to squawk after today.

"Why didn't you tell us you had a fast ball?"

Michael said slowly: "I don't know—probably because I didn't think of it. That day I went good in practice it seemed what I had was good enough. You didn't ask to see a fast ball."

A half-inning had been played and another O went up for Vinewood. As Tubby and Michael left the bench, Doak grunted something. The captain turned back.

"What's that, Colonel?"

"The second time I took something for granted," said Doak.

The score, at the end, was 5-1. Vanderbilt, in the last half of the game, had gone down before Michael Lann like wheat before a mower. The thought that lay in Doak's mind during those closing innings was how closely he had come not to using Michael Lann at all. There it was again—the everlasting gamble.

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## Here's Your Ballot

WHICH stories and articles in this issue do you like best? Help the editor by writing the titles in order on the lines below, and mailing the ballot to the best Reading Editor, *The American Boy*, 7430 Second Blvd., Detroit, Mich. (If you don't want to clip the magazine, we'll appreciate your making out a ballot on a sheet of writing paper. Thank you.)

1.....

2.....

3.....

4.....

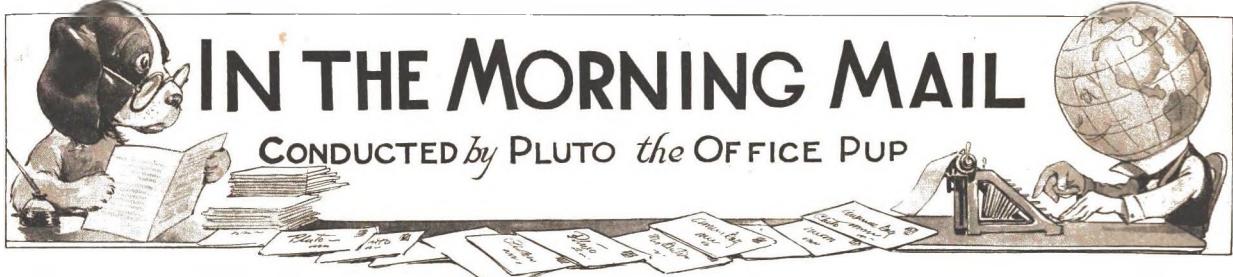
NAME.....

STREET.....

CITY.....

STATE.....AGE.....





**Y**OU can never tell how a morning will begin. I settled down in my office chair this a. m. with my tail curled up comfortably behind me and my spectacles well down on my nose, and decided to unload a little helpful philosophy on the editor.

"Power," I told him, "that's what you've got to have. A personality that knocks 'em dead."

"And you've got it," the editor replied, which should have warned me. He dug



There's a new book of Stephens' stories.

into my Morning Mail pile and pulled out a letter. "Here's a letter from J. David Bishop, Bethlehem, Pa., whose dad is a missionary in Central America. Bishop says he showed your picture to a neighborhood pup. The pup uttered a long bark. The next day it took sick and died."

Maybe, after this, readers should show my picture only to dogs with strong constitutions.

#### A new C. A. Stephens book

Thousands of lovers of the C. A. Stephens stories in the *Youth's Companion* will be delighted to learn that a selected group of his stories is now published in a book under the title: "My Folks in Maine." If you want to read a series of gripping, true-to-life stories of pioneering days in Maine, write The Old Squire's Bookstore, Norway, Maine, for information about "My Folks in Maine" and other volumes soon to be ready.

"A picture of perfect devotion," writes Lieutenant Commander C. F. Martin, U. S. Navy, on our April cover. "Louise, a midshipman, captain of the ship, took her young son, trying him to safety in a breeches buoy. We liked that picture, too, and we were delighted that we had on hand one extra engraver's proof to send Lieutenant Martin."

#### More kennel clubs!

The expansion committee reports new local American Boy Kennel Clubs in St. Louis, Mo.; Port Washington, Ohio; Lake Placid, N. Y.; Muskegon, Mich.; Minneapolis, Minn.; Norristown, Pa.; Belmont, Ia.; Webster, Ia.; and Albany, N. Y. The Minneapolis club meets in a shack built in the rafters of Louis Blair's garage. The Lake Placid club has a meeting every Wednesday and discusses American Boy stories.

#### This dog made good

"My dog came to our house a vagabond," writes David Hersey, Mitchell, S. Dak. "He was dumped out of a car by some city folks. He has turned out to be an excellent cattle dog. We just tell him 'Sic 'em,' and he separates our cattle from other cattle and drives them in. He doesn't like cats and he has one bad habit—bark-

ing at cars." Hersey would like to have some of the rest of you write the Office Pup about your dogs. Let's hear from you.

#### About vacations

How did you spend your vacation? John Paddock, Clinton, Iowa, and three other boys took a 1200-mile auto trip through Wisconsin. They earned the money for the trip by washing cars. That's clean money, well spent. (Don't throw that book, Ed!)

#### Eagle catcher!

Terence McVay of the St. Louis 20th Century Club tells the following true dog story: During a fierce sleet storm a bald eagle was forced to fly near the ground. He came down on the back of a mule. Riding the mule was Dan Cook and his shepherd dog, Doss. The eagle's claws came into contact with the mule and three were left: Dan, Doss, and the eagle. Doss went into action and the eagle was soon dead. It had a wing spread of 6 feet.

#### Long timers

In April we told you about Edge C. Lewis, Downingtown, Pa., who has read the *Youth's Companion—American Boy* for 62 years. We thought that was a record, but a later mail brings a letter from F. D. Shewell, Sebring, Ohio, who has subscribed continuously for 69 years, and renewed last January for three years more! One of these days we're going to start a Century Club composed exclusively of readers

of one hundred years' standing. Two good candidates for future membership would be Virgil B. Harris, Elbert, Colo., who has read the magazine for 10 years and would like some rousing pirate stories; and Edgar Coopman, Brockport, N. Y., who has read *The American Boy* continuously since 1918 and also wants a pirate yarn. (We'll have to see if we can't dig another pirate serial out of Rear Admiral E. R. G. R. Evans, who wrote "Ghosts of the Scarlet Fleet.")

#### The month's lesson in grit

When Walter W. Stout, Joplin, Mo., was eight years old he met with an accident that blinded him and took off all the fingers of the left hand, and all except the thumb and small finger of the right hand. At 23 he is a trombone soloist and broadcasts over the radio. He likes sports, can repair cars and radios, and is building a fish pond in the back yard by himself. He resents being called helpless and he isn't. He has overcome his handicaps.

*Hide-rock has a result. Remember the story in which Hide-rock finally learned to ride a given horse?* Robert Miltian, Silvermine, Mont., submits a picture (printed on this page) proving that his dog Rex, part shepherd and part collie, can ride a horse too. When Bob rides to town Rex is perched in back of him.

#### A good map for your den

Would you like to help build a great parkway along the Potomac River as a memorial to George Washington? Then send a dollar to The American Civic Association, 901 Union Trust Bldg., Washington, D. C., and ask for a handkerchief

map of the national capital. The map, about twenty-eight inches square, is printed on cloth and contains the original plans of the city of Washington drawn by the French engineer, L'Enfant, in 1791, and pictures of present-day Federal Buildings in the border. Order your color—red, green, plum, brown, or terra cotta. Your dollar will help to realize the American dream of making Washington the most beautiful capital in the world.

#### About hobbies

Kennel Clubber Ernest G. Casseres, Cartago, Costa Rica, C. A., wants instructions on selecting a hobby. There are only two requirements for a good hobby: it should be worthwhile; you should enjoy it. Ralph E. Prouty, Madison, Ohio, for in-



He's a cowboy dawg!

stance, makes a hobby of poetry. He finds a poem he likes and memorizes it. He can recite 20 now and intends to learn 25 this year. He gets from his hobby a sense of beauty and mental exercise. . . . Harold L. Kirkpatrick, Pomona, Calif., spends his spare time on ethnology, or the study of races of people. He is specializing on the American Indian, building up a knowledge of how the Indian lived, what he wore, his customs, his religions, his tools and industry. . . . John Ansopher's hobby (Sunny-side, L. I.) is printing; John Terrel, Shafter, Calif., makes a hobby of model railroading. The world is so full of fascinating things that it should be easy to overcome a good hobby.

#### Out of luck

Joe J. Keeeline, Jr., Gillette, Wyo., his brother, and their collie, would like to start a local kennel club. The only trouble is that they're on a ranch, 45 miles from the nearest town. The Office Pup has no suggestions to offer, unless Keeeline wants to throw the club open to white-faced cattle and coyotes. Club or no club, Pluto portraits are on the way to the brothers.

"Why not introduce a great living American to the readers each month?" suggests Ray Casey, Great Falls, Mont. A good idea. Our editorial page has done that, but we'll try to dig up a few more for you.

"For the boy who is in high school and planning his future, William Heylinger's stories of vocations are most helpful," writes D. C. Bergus, South Bend, Ind. A new Heylinger serial, this fall, is based on the great electrical industry—you're going to like it.

#### Letters, please

As usual, our space is running out before we've been able to quote from half the letters we've picked out. Fans have asked us how they may join The American Boy Kennel Club. The club is an organization of contributors to this page. The way to get in is to send Pluto a comment, an experience, or a suggestion that he can't help using. Every person quoted receives an autographed portrait of the Pup. You may also, by getting eight signers, form a local Kennel Club and receive a portrait for your clubrooms. Let's hear from you. Address Pluto, *The American Boy*, 7430 Second Blvd., Detroit, Mich.

O. H. Pluto, the Office Pup, is brave; His courage is immense, And with his courage he combines An awful lot of sense.

For instance, take his voyage in The good ship *Golden Hind*, To catch a lot of fishes of The oceanic kind.

Now Beebe takes a ball of steel, With oxygen, and such. Did Pluto use a bathysphere? Or oxygen? Not much!

"Why take a lot of nets and lines?" The Office Canine said. "Why use a lot of costly stuff When you can use your head?"

He caught a drumfish with a trap. To trap drum was a lark. A halter brought the seahorse in, Exams enticed the shark.

He lured the dogfish with a bark. The dogfish caught a cat. The flatfish fell for lower rents— Who wouldn't fall for that?



He pulled an ear and caught a crab, (You do it with a lurch.) Sea robins came for scattered grain; Each robin had a perch.

With bread he caught a butterfish, The kingfish with a crown; He dipped his shoe and caught a sole, A fish of some renown.

His mirrors caught the rayfish, and The sunfish, and the stars; The weakfish came aboard to rest, The jellyfish in jars.

With haddock, hake, and halibut, With octopus and squid, A sea bass named Sebastian, And a cod nicknamed "the kid."

The *Golden Hind* returned to shore, With many a lusty cheer, A sea bass named Sebastian, And a cod nicknamed "the kid."

Oh, Pluto, the Office Pup, is brave; His courage is immense, And with his courage he combines An awful lot of sense.



## Build a Darmstadt Konsul Glider (Continued from page 25)

the nose piece in place against No. 1 bulkhead. The cowling is made in two pieces, one on each side of the center. First the upper edges of the bulkheads No. 1 to No. 4 must be undercut 1/16" to allow the cowling to fit down flush with the rest of the surface of the fuselage. The nose piece is also cut away to receive the cowling. Two pieces of 1/16" balsa are then fitted into place and sanded to form a continuous curve with the nose piece and the fuselage. After that, draw and cut out the cockpit with a pointed razor blade.

The stern post (rudder post) is a  $\frac{1}{8}$ " square piece of balsa  $2\frac{1}{4}$ " long. Cement it in place, using small pins to hold the ends of the longerons in position while they dry.

The keel is cut from a  $\frac{1}{8}$ " balsa, following the outline of the lower edge of the fuselage from bulkheads 1 to 6. When finished the keel is pointed in front and curves to  $\frac{1}{8}$ " in depth at the rear. After the keel has been cemented into place, fit a cap strip of  $1/32$ " $\times$  $1\frac{1}{8}$ " bamboo to the lower surface to form a hard skid for landing. Shape and cement the .030 music wire hook to the cap strip directly under No. 4 bulkhead.

Cut the wing mounting block from a balsa block  $\frac{3}{4}$ " $\times$  $1\frac{1}{8}$ " $\times$ 8". Carve its lower surface to fit over the top of the fuselage and the sides to sweep smoothly into the wing. Round the front end of the block to a streamlined shape and cut the sides to a point at the rear. Cut a rectangular hole  $1\frac{1}{4}$ " $\times$ 4" through the center of the block. Two small .030" music wire hooks are cemented to the under side of the block so as to extend into the open rectangle. These hooks are used to hold the wing in place. Small dress snaps may be substituted for the hooks if you prefer. The block may now be cemented to the fuselage.

The empennage surfaces are built up with the streamline section shown in the drawing. Each rib differs in length, but you may determine the size from your full-size layout.

Notice that both elevators and rudder are hinged. Cut these hinges from .010 sheet brass or thin tin,  $\frac{1}{2}$ " in width. Bend them to form a letter N whose height is equal to the thickness of the section. (See detail near top of drawing.) This type of hinge is stiff

enough to maintain the setting of the control surfaces while in flight but permits them to be easily adjusted.

Assemble stabilizer and rudder over your drawing. Cut the ribs in two, cement the two spars to their ends, and join the spars together with the hinges. Cement the trailing and leading edges to the ribs, cutting a V-shaped notch out of the leading edge of each rib to let the leading edge spar fit into it. Cement the stabilizer across the fuselage with the additional rib piece shown in the drawing under the title "stabilizer attachment piece." This piece is cemented along its entire length to the fuselage. The rudder and fin are made in the same manner and the rudder hinged to the fin and stern post.

A Gottingen 535 section is used on the wing. A drawing of this section is given below. Cut the ribs from 1/16" balsa, cutting out the holes first, then the outline. Cut out the notches for the leading edge and the spars—note that the leading edge notch is V-shaped.

The tip ribs, which vary in length, will have to be fitted. Build the wing in three parts—two 26" tips and the center section.

The wing mounting piece, to be cemented to the lower surface of the wing at the center of the center section, is cut from a  $\frac{1}{2}$ " $\times$  $1\frac{1}{8}$ " $\times$ 6 $\frac{1}{4}$ " balsa block and is shaped to fit the lower surface of the wing. This block fits on top of the wing mounting block on the fuselage. Cement two 3/16" $\times$ 3/16" $\times$ 4" balsa blocks to the under side of the wing block so that they will fit snugly into the rectangular hole in the wing mounting block. These act as locating blocks and keep the wing from shifting on the fuselage. Cement two small hooks similar to the ones used on the wing mounting block to the block directly over the other hooks. Two small rubber bands are looped over these hooks to hold the wing in place.

The wing sections are assembled together for flying by means of two short pieces of aluminum tubing and two short sections of birch dowel. These

are fitted into the ends of the section as shown in the drawing. The dowels must fit the tubing snugly yet must be loose enough to slip in and out freely.

Cover the glider with Japanese tissue. To do this, select a portion of framework to cover, paint it with banana oil and lay the paper over it. Don't try to stretch the covering. With ordinary care you can avoid wrinkles.

You can shrink the paper tight by lightly spraying the finished glider with water. A small hand-plunger type used for spraying insects around the home will do the job satisfactorily. The paper can also be shrunk and at the same time waterproofed by painting the plane with a mixture of five parts of acetone to one part of banana oil.

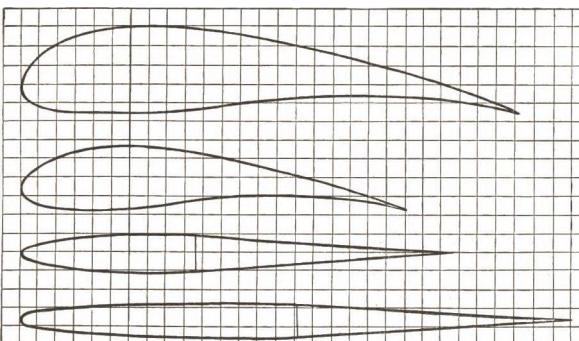
To balance the glider, drill a small hole in the nose and drop lead shot into it until the glider when launched from a height of five or six feet will glide smoothly to the ground. Then plug the hole with a small piece of balsa.

Use a spool of thread for a towing cable when you're launching the glider. Fasten a small ring bent from .030 music wire to the end of the thread and slip this over the launching hook so that when tension is relieved the ring will slide off. Use at least a hundred feet of thread and launch the glider in much the same manner as you would a kite.

Have your chum hold the glider in flying position while you hold the end of the thread. At an agreed-upon signal start across the field against the wind while your friend releases the glider. Walk—don't run. And don't fly your ship in a windy day.

If your glider is constructed correctly and properly balanced, it will climb rapidly until it's almost over your head. When it has climbed to the limit of the thread, release it by slacking off on the line and by letting the ring slip off its hook. If weather conditions are favorable and there are enough rising air currents you may never see your glider again. Boys have followed models for more than two miles until they have literally disappeared into the blue! But it's more likely that after a long flight the graceful ship will coast earthward to give you many more hours of rare fun.

### Wing Ribs for the Glider



HERE are your wing ribs (top two), elevator and rudder ribs. Draw lines on tin or cardboard forming squares one-quarter inch on a side. Then draw in the ribs as above, being careful to cross each line exactly as in the drawing. Then cut the ribs out and you'll have a cardboard or tin template (pattern) from which you can make all ribs for the ship.

## The Golden Clue (Continued from page 13)

overexcited and suspicious of everyone. How could we know they were your friends?"

"Where are they?" demanded Renfrew.

"Free them, Jake," said Gunnar.

And very soon Curly, to his amazement, found himself limping in from the shed with Irwin at his side. Irwin slumped at the table, where Gunnar himself solicitously poured water for him. Curly hurriedly told his story to Renfrew.

"They jumped us, you see, without warning!" he finished. "We've been in that shed ever since."

Renfrew, who had listened silently, turned to Gunnar, standing impassive. The big man barely stirred, and spoke.

"That is what fear does," he said. "On Sunday night, late, a man came here. He was an ugly customer, with a queer ear and a crippled hand. He came walking up from the point with a heavy burden on his shoulder and my brother Jake and Raffat, this Indian, came out of the woods and met him. He dropped what he carried, drew his gun, and started firing at my brother. He would have killed him, for Jake was unarmed, but I ran out

just in time to save Jake by shooting him. He is in that room—badly wounded."

There was a silence while Renfrew glanced from one to another of the brothers, very thoughtfully.

"So you attacked my friends out of fear?" he asked.

"Yes. Can't you see our position? We had shot this man, and we had him in our house, with the precious burden he had carried. Then these men came, demanding that treasure, and we had tried to kill us without warning. So we were afraid, and we overcame these men and tied them up. We thought they were friends of the wounded man.

We thought they had come for the box, and we wanted to keep it until we could turn it over to the authorities."

"Why?" demanded Renfrew.

"Because it is full of gold!" cried Gunnar Trondheim.

Turning to the table, he swept away a square of canvas cloth and revealed, lying there open, a strongly made wooden box filled with ingots that glittered ruddy yellow in the light.

In a breathless silence Renfrew strode over and looked down upon the treasure. It seemed to Curly as if the

Trondheim brothers waited in tense suspense as he reached out and touched the yellow metal. Renfrew ran his fingers over one ingot gently; then he suddenly turned to Irwin Brewster.

"Where's your car?" asked Renfrew.

Irwin rose, with a slow smile spreading his bruised lips. Curly was elated to see that his eyes were bright once more.

"Where is it?" Irwin demanded of Gunnar Trondheim.

Gunnar shrugged. "We saw no car," he said. "You appeared on foot."

"There is no car," rumbled Jake.

"That's a lie!" Curly caught Renfrew's eye and abruptly shut up. He had been about to say it was a lie, for he had heard the brothers speak of destroying the car, but Renfrew had silently demanded silence.

"We have a wounded man, wanted by the police," said Renfrew. "And this gold must be returned to Vancouver. There is no car, and my launch is disabled. But I noticed that you were preparing your schooner for sailing. That was to return the gold to the police, I take it?"

Gunnar Trondheim grudgingly nodded assent.

"Good. Then you will take us on your schooner, back to my plane at Brewster Landing."

Again it was as if his voice were a weapon, and his words a lash. The Trondheim brothers stood staring at one another silently.

"No." Gunnar Trondheim moved toward the table, and the gun. "You cannot have the schooner!"

With a lightning movement Renfrew picked up the gun and handed it, butt foremost, to Irwin Brewster.

"Will you hold Mr. Trondheim's pistol for him?" he asked.

Gunnar Trondheim gazed at him furiously.

"Of course," said Renfrew coldly, "you will give my friends back their guns."

"Yes," grinned Irwin, the pistol firm in his hand. "They will give us back our guns."

Curly, though a little dazed by the shock of events, moved forward and Gunnar Trondheim showed him where his rifle and Irwin's revolver were hidden in a closet.

"Now," said Renfrew, "we will go out to the boat."

"No, no," growled Gunnar stub-

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bornly. "You cannot take the schooner." "I'm sorry," clattered the voice of Renfrew, "but your schooner is commanded. It is now in the possession of the Crown."

Curly noticed with admiration how Renfrew, who had given no hint as to whether or not he was armed, now arranged matters so that the hands of all the Trondheim brothers were occupied on the trip to the schooner. The wounded bandit lay on a camp cot in a tiny room, and struggled for life in a state of semiconsciousness. Inexorably Renfrew's voice ordained that Steve and Jake Trondheim should carry the wounded man, cot and all, to the scow with which freight was ferried out to the schooner that lay at anchor in the deep waters beyond. Gunnar had to carry the heavy box of treasure. And on the scow Renfrew unobtrusively stood, with Curly and Irwin at either side, watching the three Trondheims while the Indians plied the sweep.

As they neared the schooner, Curly was surprised by the sudden leap with which Renfrew snatched the stern sweep from Ratfat's grasp and threw it over so that the scow came up to the schooner broadside on. Then Curly saw Gunnar and Jake reach for the deck rail and pull themselves with amazing quickness aboard the schooner. But Renfrew was before them! He had vaulted to the schooner's deck so swiftly that he seemed to step forward to meet the Trondheims as they came aboard. Confronting him there on the deck, they stood like frozen men as Steve climbed up.

"Quick!" cried Irwin in Curly's ear. "Get up there!"

And Curly had the queer sense, as he followed Irwin over the rail, that Renfrew was a trainer in a cage of wild animals all ready to leap.

"Can you start an engine?" Renfrew demanded of him.

Curly nodded eagerly.

"Go down and start the kicker," said Renfrew.

Curly flung himself down to the engine in the greasy little cabin astern, and got it firing. Hurrying back, he found the situation unchanged except that the Indians had come aboard, and the wounded man had been made as comfortable as possible on deck.

"Now up that anchor!" cried Renfrew.

No one moved.

"Make it lively!" crackled Renfrew's voice.

One of the Indians moved toward the bow. But with an oath Gunnar leaped forward and hurled him aside.

"None of that!" cried Renfrew. "Trondheim, I want that anchor up."

"No!" said Gunnar Trondheim.

Everyone stood motionless. The Trondheim brothers looked at one another. Steve raised a hand to his hip.

"N-n-no!" Renfrew's voice hung queerly on the humming consonant and snapped out the vowel like a pistol shot.

Steve's hand fell to his side. Curly understood. The animals were rebelling; the trainer was being tested.

"Get your rifle!" whispered Irwin.

Renfrew stepped forward and, ignoring the Trondheims, spoke crisply to the Indians.

"I am an officer of the Royal Canadian Mounted Police. I am a redcoat. If you are with me, get that anchor up. It is an order."

He stood, seeming hardly to notice the Trondheims, while the Indians slouched forward and tugged at the rude winch that turned the anchor chain. Slowly they worked, struggling with its heavy weight. As the shank of the anchor broke the surface, the Trondheims moved restlessly.

"Look out!" cried Irwin, and fired into the air.

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trick, Renfrew had a pistol in his hand. The Trondheim brothers stood and glowered at him. The anchor clanked home against the hawse pipe. "Curly!" rang the voice of Renfrew. "Go look the anchor over." His eyes were intent upon the three brothers.

Curly stepped to the bow. Irwin Brewster strolled forward with Curly's rifle and stood beside Renfrew.

"It's gold!" cried Curly, his voice cracking in excitement. "There are bars of it wired to the anchor!"

"Take the Indians and haul it aboard!" clattered the voice of Renfrew. Then with a singular, quiet intensity, "You are under arrest, gentlemen. Will you surrender quietly?"

The brothers stood and stared, not moving, yet taunt with a violent desire to rebel.

"Disarm the prisoners!" snapped Renfrew suddenly—and it was over.

With the Trondheim brothers imprisoned in the cabin below, Curly sat on the hatchway and heard Renfrew explain the bewildering circumstances, as the schooner chugged smoothly toward Brewster Landing.

"When Garrity McCune told me of a trading station run by a man named Trondheim," said Renfrew, "I recognized the name. The purser on the steamer *Beauregard*, which had carried the gold from Nome, was a Steven Trondheim. And Forgan, the gold thief, was making north toward a trading station run by a man of the same name!"

"But why? Were they in cahoots? And if so, why did Trondheim shoot him?"

"Because he had cheated Forgan. At first I figured that Trondheim had tipped him off to the gold shipment and that Forgan was coming up to join him and divide the spoils. But as I traveled up the coast in your motor launch I ran across the wreck of Forgan's motor boat. It had evidently been set afire and abandoned to Monday's storm, but the storm had flooded the boat before it was burned, and then washed it up on the beach. Evidently Forgan had met with an unfriendly reception. I realized that he was dead, or expected to die, and that someone had tried to destroy all evidence of his existence. So when I came to the trading post I came warily. You know the rest."

"But we don't! How come there's two loads of gold?"

"Don't you see?" laughed Renfrew. "I had thought of the possibility of that, and when Trondheim so willingly surrendered the gold Forgan had brought, I knew I was right. Steve Trondheim, purser on the *Beauregard*, and in charge of the ship's strong room, had tipped Forgan off that he could steal the shipment after it was landed; but before it was landed he had substituted for the box of gold a box of gilded lead ingots. It was the lead that Forgan stole. The gold had been dropped off the ship as it passed Shirt-sleeve Inlet, probably sunk on a cable with a buoy attached, for Gunnar to pick up at his leisure."

"Golly!" cried Curly. "And then Forgan would steal the fake gold, and Steve would never be suspected. That's clever."

"Yes, it was. All Steve had to do was leave his ship at Seattle, make his way up here and sail with his brothers for parts unknown. But Forgan discovered the trick too soon. He nicked one of the lead bars—I saw the nicked place—and sped up here for vengeance. Well, he got it. If he lives, he'll take a coyote's pleasure in knowing that he gave the others away."

"How did you know the gold was on the anchor?" asked Curly.

"I didn't," said Renfrew. "But I knew it was on the schooner—by the way they behaved. A crook can be too clever."

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(Continued from page 38)

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and comparing the hardness of the different impressions. Then at last, pointing:

"Those were made yesterday, these this morning. Yes, here my niece came this morning, again to drink. My friends, she must be near!"

"Yes. Here in the timber hiding," Eli agreed.

But I said nothing. For the moment I was dumb. We had done the almost impossible! With all that vast country to look over, with the chances a million to one against us, we had actually found where the girl had been.

Red Horn hurried back into his saddle and we turned into the timber; and soon learned that the girl had carefully avoided the many game trails in it. So we separated and went up to the extreme upper end of the grove, frequently shouting, "Flying Woman! Show yourself; come to us!"

No answer! She was not there or she would have come running when she heard our familiar voices. We went down the whole length of the grove, repeating our calls. Still no answer. We agreed that she must have left the bottom at its upper end, opposite where she had been to water.

She had done just that. We found her slender footprints in one of the game trails running up onto the plain; but lost all trace of her once we topped its rim. What more likely, however, than that, hungry and weak, she was now heading for home?

But what chance had she of reaching home, worn out as she was? I looked off upon that vast expanse of plain, and timbered ridges, and my heart sank. Evening was drawing near; the day had been terribly hot. Somewhere out there the girl must have weakened and lain down to die. We should never find her alive. Sadly I fell in line as Red Horn led off.

We crossed a ridge, and another and another, pausing on the crest of each to look long for her we sought.

We were now only a few miles from camp. As we approached still another of the scrub pine ridges, Red Horn, well in the lead, shouted back to us: "Aistukapi Natos! Ahnitukit!—Going out of sight is Sun! Hurry!"

"Nothing to be gained by hurrying—we shall never find her," I said to Eli. Nevertheless, we were abreast of our leader as he topped the ridge.

Then, simultaneously, we saw her! Down upon the plain and a mile away, a slight and burdened figure moving slowly, halting westward. No need for Red Horn's shout of, "There she is!" We fairly tore down that ridge.

Suddenly we discovered four riders hurrying from the rim of the plain out toward the wavering figure. They were nearer the wanderer, but ours were the better horses. Then we discovered that they were Short Bow and three other Crees, and I shouted to Eli:

"Short Bow himself. He or I must lose now!" To myself I added fiercely, "Not I—will not lose!"

Flying Woman seemed not to hear the pounding of our horses' hoofs as both parties of us neared her; she kept faltering forward, struggling on, weighed down by her burden, her saddlebags, stuffed full with her various belongings. And now it was plain that Short Bow, far in the lead of his companions, would be first of us all to reach her side. Red Horn was shouting to him:

"Stop! Leave her alone, you dog-faced Cree, or I will kill you!"

But Short Bow gave no heed to it, nor looked even once our way. At the same time, Eli was shouting to Red Horn:

"No, you must not kill him—he is as nothing."

Still the girl kept upon her slow, unheeding way, as if she had neither ears nor eyes. Nor did she flinch or

turn when Short Bow, springing from his horse, seized hold of her; instead of that, she wilted in his supporting arms and closed her eyes. But he held her only for the moment it took me to gain his side and give him a blow upon his chin with all the strength I had. Down he went, the girl too, and both lay as if dead.

Then Red Horn was kneeling at her side, raising her, and saying to us: "Not dying. Hold her, pass her up to me when I get upon my horse." And with that he spat contemptuously at Short Bow, beginning to show signs of reviving.

His companions, upon their winded horses, were halted some little distance off, uneasily watching us.

"I am strong—let me carry her to camp," I said to Red Horn. I longed to hold her, comfort her.

"No. It would not be proper. I am the same as a father to her; it is for me to do it," he answered.

As Eli and I passed the girl up to him, she slowly opened her eyes, dully, absently looked at me, closed them; lay inert in Red Horn's arms. She was far gone from need of water and food; completely exhausted.

Short Bow was sitting up, with one hand feeling his bruised chin, with the other groping for his rifle, as I turned to take up my rifle and Flying Woman's saddlebags. He had his weapon as soon as I had mine and half raised it offensively.

"Shoot!" I signed to him.

But no. Tapping the little medicine sack dangling at his breast, he said to Eli: "You tell your white friend that I don't have to shoot him to get the one I want. This medicine, soon or late, will bring her to me."

Interpreting that, Eli added: "Don't answer him. Get onto your horse and go. I'll see that he doesn't shoot you in your back."

But I had to answer. "Say to him this," I told Eli. "You shot at me, down on Big River slope. Try again. Try now to kill me."

Pointing to the little sack at his breast, Short Bow answered: "I don't have to shoot you. This, my medicine, will wipe you out, and bring to me the girl. My medicine, it is powerful."

I got into the saddle and rode on, and when Eli overtook me, I said to him: "I did the unforgivable thing; I

struck the Cree. But he did not attempt to shoot me."

"Ah. But Crees are not Blackfeet, you must remember. They often settle quarrels with their fists, or clubs."

Looking back, we saw that Short Bow had regained his horse, and with his companions was heading for the Cree camp.

"He must have been pleased when he came up with Big Bear, and learned of Flying Woman's flight," I remarked.

"Please?" You bet he was. Bragged of the power of his love medicine, and lost no time setting out to seek her."

We soon overtook Red Horn, who was having difficulty with the girl in his arms, in keeping his horse at a lop. Before long he showed the strain of it and, when I again offered to take her, passed her over to me with a sigh of relief. How glad I was to hold her.

It was not long before I was obliged, though reluctantly, to pass her on to Eli; and he in turn to Red Horn; and then again I held her.

And so we managed to keep our horses at a lop, and in the early evening arrive at our camps. We drew up before Red Horn's Lodge, and Sahtaki and Frog Woman, crying, laughing, praying, took the girl from us, carried her inside, and gently laid her upon her couch. We soon followed, I with her heavy saddlebags.

The women got a little water into the girl, a spoonful at a time, and bathed her face and hands. Slowly she began to revive. A crowd of interested Kutenai came in, and surrounded the lodge, some of them bringing food for us, and while we ate, Red Horn told them of our quest, and finding of the girl. His description of my encounter with Short Bow pleased them.

It was late and the crowd had departed when Flying Woman finally came alive, sat up and took eagerly the sups of water and morsels of food that the women allowed her.

Finally, Red Horn said to her: "Niece, why did you do it?"

At that she wilted; bowed her head. Did not reply until he had thrice, more and more sternly, repeated his question. Then suddenly straightening up, with all anger she replied:

"Why ask, when you well know it was that Short Bow, with that medicine at his breast, who made me go?"

"You should be ashamed that you

had not sufficient mind to resist it. Why did you not call upon me, upon your powerful grandmother, to hold you?" her mother cried.

"You don't know, you can't understand how powerful it is, the medicine of that Cree. It kept pulling me to go to him. I did not want to go. But at last I could no longer resist. Quietly, silently, in the middle of the night, while you all slept, that medicine made me take up my things, and saddle my horse and go. Truly, I could not help it," she ended, and wept.

"And what then? Where did you go? How lose your horse?" Red Horn demanded.

"All of it I do not know," she said bewilderedly. "Not even how I got back here. Tell me, Mother, how did it happen?"

"No. First you tell us of your going, all of it that you can remember," Red Horn interposed.

"All that I can, then," she murmured. And after a quite long silence: "I got upon my horse and set out for the camp of the Crees, and Short Bow. Instead of going straight toward the camp on Crooked Creek, I turned off toward the Big River breaks. When day was near, I felt that I must hide.

"I stopped in a grove of pines at the edge of the river breaks, unsaddled my horse and tied him to a tree, lay down and tried to sleep. But I was too hungry and thirsty to go quickly to sleep. I had brought no food, for I had expected to be soon in the Cree camp. And I dared not go down to the river to drink lest some of you or maybe a war party discover me. Yet after a time I slept. And was awakened by my horse, loudly snorting, dashing this way and that way trying to get loose from the tree. At the same time I smelled a bear, the strong odor of a real-bear; and saw it, one as big as a buffalo, padding toward the horse. I yelled and sprang up. The horse broke loose and ran out toward the plain; the bear turned and ran the other way. I ran after the horse. When I passed out of the pines, he was a little way off upon the plain. I approached him and he ran; again stopped to graze; again ran from me; and again and again—until I knew that I could never catch him.

"Afraid that some of you, or some enemy would discover me out there, I hurried back into the timber. My heart was heavy within me. I had lost my horse; I was hungry, very thirsty. Well, water I could have: I arose, shouldered my saddlebags, and started for the river; went slowly, watchfully, for the big real-bear had gone that way.

"But I had to go on. I had to have water. The trail brought me into the head of a long, wide bottom. I crossed it and its belt of timber, came to the shore of the river and drank and drank and drank. Oh, how good the water felt as it went down my throat!

"I then went back into the timber, into the thickest growth of willows I could find, and lay down and slept. There I lay all day, sleeping a little, thinking much, planning desperately. I said to myself:

"Though there are many real-bears about, though enemies are up there on the plain, I will sleep now and start again for the Cree camp as soon as Sun goes down."

"How strange! When I awakened it was still another day. Sun was just coming up; the bottom still half dark. What had caused me to sleep so long, so soundly? I went to the river and drank. I was weak, sick from want of food. I knew that I must soon have food or lie down and die. I took up my saddlebags and started up the long slope to the plain. How terribly steep it was; how hard and harder to climb. As I went slowly up, it came to me that something more powerful than Short

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## THE AMERICAN BOY—YOUTH'S COMPANION

Bow's medicine had caused me to sleep all through the night, when I should have been going to him.

"I prayed. I asked the Above Ones to guide me. 'Give me revealing signs to point out always the safe way to go,' I prayed.

"Halfway up the long slope, the deep-worn trail forked. I turned up the left branch, for it led straight in the direction of the Cree camp. I had climbed but a little way when seven big buffalo bulls came leaping down it, and I had to jump to get out of their way. I fell and rolled to the bottom of a deep coulee, my saddlebags too. I knew then that those bulls were the sign of the Above Ones that I had taken the wrong branch, the dangerous branch of the forks of the trail. For they were seven, those bulls, the very number of the sacred Above Ones, the Seven Persons.

"I climbed to the other branch and followed it up over the rim of the plain, where it became dim, soon ended.

But so long as it lasted, it had led straight toward our camps. It was meant, then, that I should go home. I was more than ever weak from want of food, but I made straight toward the east one of the Moccasin Mountains, knowing that I should then go straight toward our camps. I went on and on, and after a time felt better, glad that I was going home.

"Yes. I remember that I was happy; that I sang. And then—and then I was here. Right here and upon my very own couch—"

Abruptly she ended her tale of suffering, and sank back against her mother's breast.

"Niece, don't you remember seeing Short Bow out there?" Red Horn asked.

"No! What of him?" she cried, straightening.

"Only that he seized you, tried to carry you off, and Apikuni here struck him down, took you from him."

"Oh! Oh! You killed him, killed Short Bow!" she gasped, her eyes wide on me.

I shook my head, and Red Horn answered: "No, did not kill him; he soon came alive, but would not fight Apikuni, coward that he is. He said that he did not have to fight; that his powerful medicine would bring you to him."

"Oh, no! No! No!" she cried, covering her eyes.

"Bad girl, crazy girl, you have caused us a lot of trouble," Red Horn scolded, and began telling her of our quest of her. I felt that I could sit there no longer. I signed to Eli that we should go to Running Rabbit's lodge and sleep. As we were making for the doorway, old Frog Woman signed to me:

"You will come here and eat your morning food. I have much to say to you."

I nodded and passed out.

It was quite late when we returned to Running Rabbit's lodge, but he was still up, lazily smoking before a flickering blaze. After we had told about our adventures, he in turn told us the result of the council of chiefs that we had missed. Though Big Bear and the Red Rivers' chief had pleaded hard for their cause, he and Crow Foot had plainly and definitely told them that

they would take no part in a war against the Red Coats.

In the early morning, when Eli and I entered Red Horn's lodge, we found only Red Horn and old Frog Woman within. Red Horn sat smoking his big pipe and glowering at the fire. None spoke. When the old woman had set food and tea before us, I held out to her the bear-claws necklace that she had lent me, and said:

"Our quest is ended, our dangers ended. Take it."

She replied, Red Horn interpreting for us: "Refasten it upon your neck. I have much to say to you, and when I have finished, I think that you will want it to remain there."

"But first you are to eat," Red Horn added.

I laid the necklace at my side, doubting that I would ever put the cumbersome, scratchy thing on again, and the two had much talk together while Eli and I enjoyed our good breakfast. Then when we had finished, and were smoking our good friend's long-stemmed pipe, he said to us — pointedly to me:

"My friends, you, Apikuni, she there on the other side of the fireplace is going to talk to you. But first it is for me to relate shortly something that you will not like to hear.

"After you left last night, and I had told Flying Woman all about our search for her, we then urged her to forget that Cree and become your woman. We showed her that his medicine had not the power he claimed for it, because always you got the better of him. She

admitted that she did really and truly love you very much; and at last said we could tell you that she would be your woman.

"But this morning, when we all got up, she was different-minded; very sad-faced and silent. We urged her to tell us her trouble. Finally she said that in her sleep she had again met her vision man, him of the buffalo robe wrap and concealed face; and then she cried. We asked her what he had said, but she would not tell us, only that she would not now think of being your woman. Though we tried and tried to reason with her, she would only repeat she could never, never become your woman."

With that, Red Horn became silent, and busied himself with the refilling of his pipe, as though it were of great importance. Nor did Eli or I speak, for we knew that we were now to hear from Frog Woman. I had not forgotten what she had told me in her distress and anger that morning of Flying Woman's flight: That once we rescued the girl and had her safely home, I was to help bring to nothing the power of Short Bow's medicine, and my part in it would be not a little dangerous.

Somberly I waited, my heart a weight in my breast. Danger for myself I did not dread so much; there was a throbbing exultation in meeting it, defying it. But now danger for me meant even graver danger for Flying Woman. I must survive to save her.

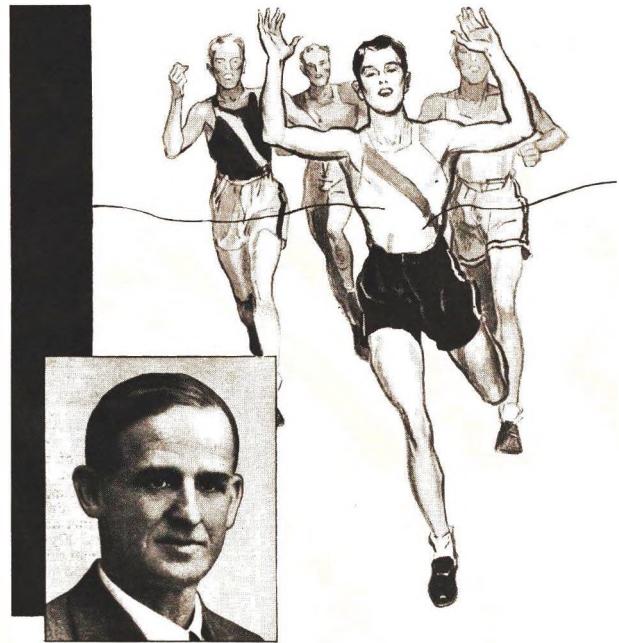
What was it that I had to face? Would old Frog Woman never speak?

(To be concluded in the September issue of THE AMERICAN BOY.)

## A CHAMPION GETS FIRED

and Wally Radnor stages a rebellion in Warren Hastings Miller's lively September yarn about a big Army-Navy marksmanship scrap —

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