The January 1929

American Boy

Basketball—Detectives—A Story of the Flying Cadets

Price 20 Cents *$2.00 a Year*

FROM THE STAFF OF THE AMERICAN BOY
TO OUR READERS

The Happiest of New Years in 1929

IN YOUR school work or your job; on athletic fields; in your hobbies, your play, your reading, we wish you more abiding happiness, a greater sense of growth and appreciation in 1929 than ever before.

There's an incomparable feeling of joy in facing a New Year. You stand on the threshold of big experiences. You face new battles that will test your courage and your wit. You're not afraid. You see things clearly and the prospect is good. You chuckle and your pulse beats high at the thought of 365 days of new life, new achievement, new wallops.

THE AMERICAN BOY staff shares the thrill with you. We stand by your side with the word of encouragement, the suggestion, the jest that will help you to face life with courage and a sense of humor.

THE AMERICAN BOY is a composite of hundreds of personalities. It's not just a staff of editors and managers sitting at desks. The men who make the magazine are spread over the four corners of the earth.

On a western ranch, a man is riding the round-up, chatting with old-timers, and dreaming of the days when there were no fences to separate one man's property from another's, when cowboys sometimes could not tell other men's cattle from their own. And these dreams will shortly become stories that will appear in the magazine.

In Ottawa sits another, poring over the pulse-stirring records of the Canadian mounted police, talking with troopers, adventuring into the wilderness. And these experiences will soon be stories.

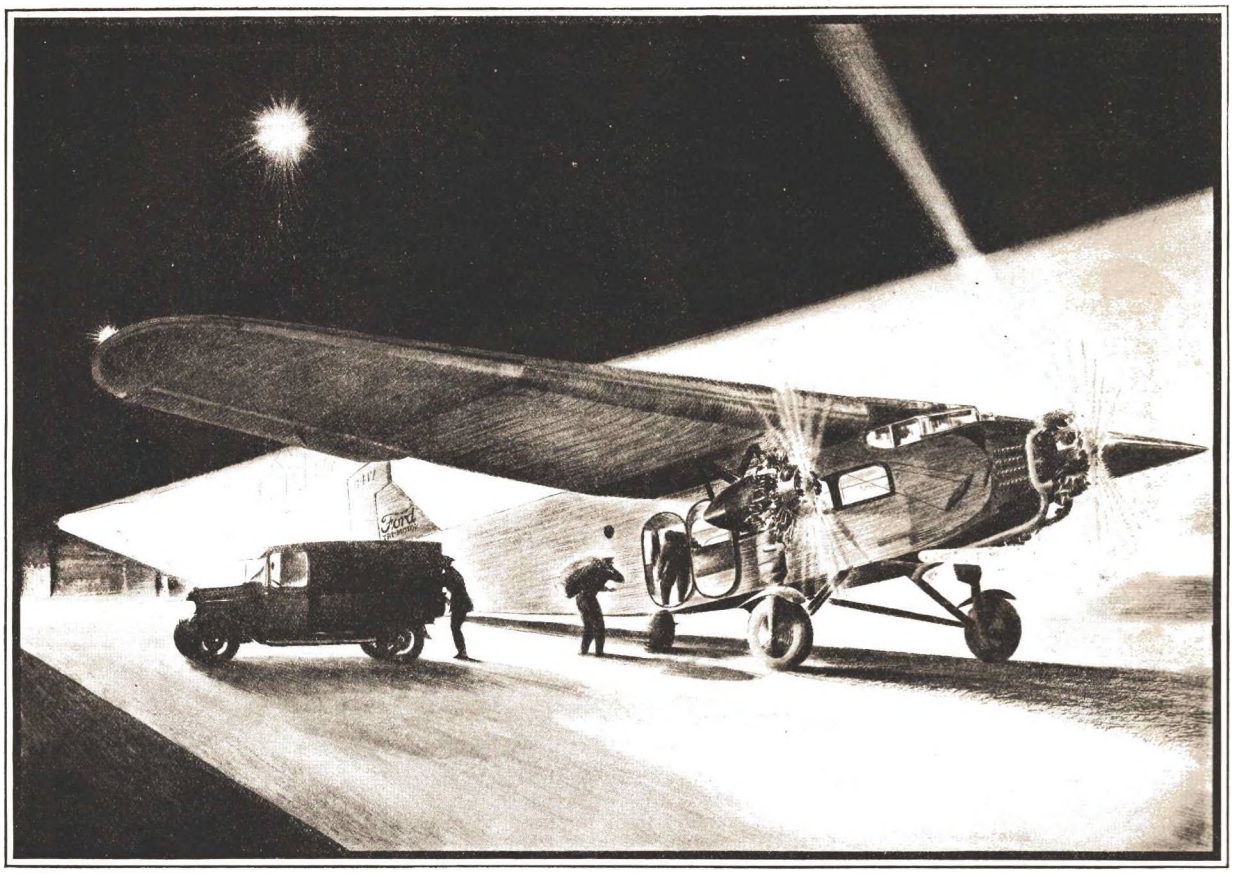
In Africa, where caravans cross the trackless desert, lives another, writing of the Foreign Legion. Men who've traveled from Paris to Shanghai are turning their experiences into words—for you.

In New York a foremost expert in aeronautics is setting down in simple terms the reasons why airplanes fly. In school shops model airplane champions are designing for you planes that will break records. Along the forested streams of British Columbia strolls a man with gun and dog, writing stories of terriers and Alaskan Huskies. From the Atlantic to the Pacific artists work with crayon and brush, to bring you in pictures the brimming life that fills your magazine.

Everywhere throughout the earth men are searching out facts and fancies, experiences and activities for you, co-operating in THE AMERICAN BOY'S effort to give you a happy boyhood that may develop you into a worthwhile manhood.

All these men in scattered places—chaps you'd like to know—join with the staff of THE AMERICAN BOY in wishing you a Happy New Year. And they promise you, warmly, to do their best to make that wish come true.

Griffith Ogden Ellis
EDITOR



STAMPED AND DELIVERED—5c

IN THE last year of the seventeenth century if a man wished to send a message to a frontier post a few hundred miles from New York or Philadelphia, it was carried on foot by a forest runner slipping through the Susquehanna-wilderness in fear of his life.

Today ten thousand feet above the overgrown trails of the forest runners, the Night Mail pilot may look down and see in one sweeping glance, the clustered lights of New York, Philadelphia and Baltimore. From a hundred miles east of Cleveland he may see the lights of Pittsburgh and Buffalo! Here is a yardstick by which to measure progress; *for the man who can lengthen time and shorten distance may add generations of accomplishment to the span of a single life. . . .*

Three notable steps have advanced the recent progress of commercial aviation in America. First, July 1, 1924, when the Post Office Department began to carry transcontinental mail, via air. Second, when all mail contracts were handed over to private commercial air transport companies to operate without subsidies. Third, when in July, 1928, *the postage rate was cut to five cents per ounce!*

On the day the new rate was inaugurated, the volume of Air Mail southward from New York increased three hundred per cent. More than twice the normal quantity was carried out of Philadelphia. Within the week Des Moines had set a world's record by despatching 45,000 pieces in a single day!

What share has business got in this new form of rapid communication?

Articles recently sent northward from Atlanta included: gabardine clothing, rugs and towels, soft drink samples, candy, cheese, peanuts, pencils, twine, sacking, shoes, brushes, and samples of seeds. . . . Out in Los Angeles a life insurance agent beat a local company to a new prospect by receiving a special form of policy from his home office in New York, via air, a day ahead of his West Coast competitor. . . . A great mail-order house in Chicago is expediting its correspondence and special deliveries through the air. . . . A single special Air Mail shipment, amounting to ten tons, or 350,000 mailing pieces, left Lansing, Michigan, on August 21st for Chicago. . . . While of course everyone is now familiar with the fact that banking houses are saving thousands of dollars by sending their exchanges regularly by air. . . .

The Air Mail, in fact, has already passed far beyond the stage of spectacular novelty. Business men everywhere are employing it as a new and most highly efficient tool in nation-wide competitive business; for they can no longer afford to ignore the fact that competitors may now send mail from the Gulf of Mexico to the Great Lakes in 15 hours . . . from the Gulf to the North Atlantic in 24 hours . . . from the Atlantic to the Pacific in 31 hours . . . *at a rate for each letter that is less than half the price of an ordinary special delivery postage stamp!* . . .

Ford planes pioneered in mail service; but a survey of tri-motored, all-metal Ford planes today shows them in steady, dependable service as railroad auxiliaries, in transcontinental flying, in coastwise flying by the most successful commercial companies, and as carriers of great importance between the industrial cities of the Mid-West and the Lake Ports. *They have already winged their way over millions of miles of successful commercial flying.*

FORD MOTOR COMPANY

The American Boy

Volume 30 January, 1929 Number 3

Price: 20 cents a copy; $2.00 a year, $3.00 for three years in the United States and its possessions; 25c a year extra in Canada; 50c a year extra in foreign countries.

Up in a trice, they stood with ears quivering, fear and craft and courage in their bright eyes.

The Quest of Quicksilver

By Donald and Louise Peattie

Illustrated by Paul Bransom

FEET light as snowflakes, soft as moonshine, paused in their running, and Quicksilver stood and stared, a gleaming shadow on the snow under the slender birch tree. Among the dark mountain spruce the birch glimmered in the moonlight, but on its pure bark shone a small square whiter still. Curious, the little silver fox rose on his hind legs, stretching slim paws up on the slim trunk, and sniffed. His bright eyes could not read the print on the paper, but it held a message for his wise nose. Man-taint. He wrinkled the wet black tip of his muzzle, dropped soundlessly on the frosty snow, and vanished, a moving stain of darker moonlight, into the night of the pine woods.

The square of paper tacked on the tree continued to make its proclamation to an indifferent wilderness. Those clear black letters meant less, to forest eyes, than the heel-and-toe print of a skunk upon the white page of the snowfall; and as for the picture under the printing, not the boldest bluejay nor the most inquisitive squirrel could make head or tail of that. Not even Quicksilver could—and the picture was nothing else but a portrait of Quicksilver himself.

"LOST!" cried the black letters. "Male Silver Fox from the Vickery Silver Fox Farm, Covington, New Hampshire. Reward of $500 for his return alive and in good condition."

Lost? Quicksilver, the light-footed, the bright-eyed, lost? Not he, who had never in his life been so much at home as now, escaped into a world that he had never known before.

Born into the neat and ordered shelter of the prison pen, suckled by a guarded and well-fattened mother, fed then from a shining dish of measured food, he had come to a splendid maturity, his coat a thing of feathery luminous beauty. Not for the cunning behind his broad forehead, the speed of his feet, or the keenness of his big pricked ears was he valued then by those that owned him, but only for the silken vanity of his hide, and for the promise it gave for other such hides upon his sons and his sons' sons. Only his superior potentialities for breeding purposes had saved that skin from being stripped from the lifeless carcass to warm a woman's neck.

But he had been saved, had Quicksilver, and for this! For this rapture of cold, keen nights, of free air blowing down from the icy peaks of Storm King Mountain where the snow clouds wreathed in a melting, billowing pattern of menace. For this difficult, perilous, savage business of battling for life against a world unknown and inimical to him. Unknown—and yet mysteriously comprehensible. It all came back to him, out of the dim recesses of his animal brain, out of the dark channels furrowed in that brain by the untold thousands of fox lives that had gone to make it. The scents that spelled danger and those that meant dinner, the thief's tricks that filled his belly and the sly evasions that saved his skin, these he knew, not by any wisdom of his own but by that ancient racial wisdom that men called instinct.

NOT since that glorious midnight when he had dug and wormed his way under a broken fence to freedom had men glimpsed so much as the white tip of Quicksilver's tail. Only the moon looked full upon him now, the white huntress riding aloft above the naked boughs. He had slipped out of the black shadow of the spruces to a rim of the mountain-side where the wind, skimming over snow-filled valleys, cut keen through his deep fur and blew deliciously through the clever bristles that made sprightly his sharp nose. Below him roofs marked here and there the floor of Little Knob Hollow. There were three of them, tucked neatly down under the lee of the hill some distance apart, each sheltered by its bare, benignant elms or maples, blanketed softly in the drifted snow. No lights shone.

Quicksilver's big ears stirred in the most delicately adjusted twitches as he tuned his hearing to the almost inaudible night sounds. From the farm that huddled just below him came to his infallible sense the sleepy mutter of chickens. His eyes were bright, but wise. Only last week he had dropped in at that cozy little farm, and he was too canny to repeat his call so soon. From the farthest of the three roof trees sounded suddenly a restless hollow baying, and died again. The sentinel there was awake, then. Quicksilver pointed his hungry little muzzle at the third of the drowsy roofs shining in the moonlight, and loped down the rocky slope.

The fence, thick hung with leafless grapevine, was too high to jump, the ground around it too hard frozen to yield to digging paws, but the door was not hung too securely to prevent an ingenious nose from working up the catch and pushing it slyly open. A moment more and the moonlit silence was tattered by the muffled frenzy of the poultry, the panic squawking that burst out into the yard where the hens ran in frantic indignation, calling on high heaven for protection.

Up from his kennel, tugging on his chain, sprang the

big blotched hound, roaring vengeance in a voice that choked as the strained leash tautened. Not two feet from his leaping paws the running shadow passed. A window in the slumbering farmhouse was flung open with an angry shout, and a shot sped explosively through the moonlight. The tip of his brush flicking a mocking farewell to the miss, the robber lolloped away over the snow, a fat bantam limp in his jaws, his feather-light gait leaving neither crack nor imprint on the glazing surface.

Look down, White Huntress. Catch the silver wraith on the mountain, if you can; strike him with the brightest shaft in your quiver. But you cannot find him, you cannot follow him. Quicksilver is running, Quicksilver whom men would empty their purses to halt and hold, is loose in the winter moonlight. He is running through the blue-black spruces, he has slipped up Whiteface, up Hemlock Height, and over the little frozen jewel of a lake that lies in its hollow, and is up a-top Knob Scar. And there in the secret warmth of the cave of the little brown bats, the snuggest of his many dens, he lies him down to munch the bones of the bantam, and to sleep.

LONG did he sleep, in the darkness that the bats made companionable by little squeaky bickerings high under the cavern's eaves, and when the sun came up and wooed the mountain rocks to warmth, the fox emerged and, choosing a flat and sheltered cranny, settled again to snooze, curled up in a ball, his brush a cozy nest for his black-tipped nose.

It was an ardent sun that shone upon the mountain world that brilliant morning. Under its rays the snow-crust glittered and, yielding slowly, ran in rivers down the wet warming rocks. The ice upon the pools thinned, cracked perilously, drifted in tiny cakes upon blue opening waters. A bluejay screamed from the spruces the jocund word that winter was defeated, its fortresses betrayed and crumbling.

March slipped on with milder dawns and the snow exiled to lonely patches under the shadow of the greatest rocks; then April bent a tender sky over the grim old peaks. A few windflowers were open; a few violets bloomed in the marshy places; and warmth was the burden of the wind, coming up from Little Squam. Vaguely restless, Quicksilver roamed the woods. The enchanted rapture of the birds in the thickets chorused sweet mysteries above his head. One by one the blossoms opened to the bees.

Spring's urgency was new to the silver fox; less than a year ago he had been a whimpering cub at his mother's side. But he was grown now, grown to princehood, and the odors and currents of the wilderness bore messages meant for him. He had never seen that handsome, frosty vixen with the perfect points and the snappish temper who was destined by the Vickery men to be his mate. He had escaped that life where even love was under law.

And now he roamed New Hampshire hills in all their chill, shy, delicate rapture of spring. Up to the mountain meadows he roved, and there in a little hollow where the first bluets were opening, he came upon her, the little red vixen Rufa, rolling merrily upon her back all among the smiling flowers. At sight of Quicksilver she leaped to her feet in a twinkling, but she did not bound away. She watched with bright inviting eyes as he circled daintily nearer.

A dauntless comrade, a bewitching mate, he found her. She was a rusty, feather-footed little creature, none too perfect as to brush, and with a nick or two in her keen ears that had heard danger and not flinched from it. But she was fearless and cunning and gay of heart, and at her side Quicksilver lived a life brimming over with peril and pleasure. She had all his wit and twice his wisdom. She taught him how to listen for meadow mice, and dig out woodchucks, and how to make friends with the farm dogs and so gain permission to raid the chicken house with impunity. They lived high and they ran far, and so great was their slaughter among the poultry that the men of Little Knob Hollow gathered together, one sunny day, with guns and dogs and an oath taken among them to hunt down the unseen thief to his finish.

THEY were snoozing in the sun, Quicksilver and Rufa, furry balls both on the sun-warmed rocks of Chicorua, when the long wailing bay of the hounds came down the wind. Up in a trice, they stood with ears quivering, little white teeth bared, fear and craft and courage in their bright eyes. Then they were off, Quicksilver leading at his feathery gallop, up among the birches, over rocks, around bogs. After three miles, he turned deliberately back on his tracks for a mile, retracing every step to where they had run atop a high rock that overlooked a tumbling mountain stream. There Quicksilver paused, the wind of venture blowing in his whiskers, and coiling back upon his haunches, sprang over the water and landed, almost without a sound and quite without a footprint, in the soft moss of the farther bank. Rufa was behind him like the trusty red shadow that she was.

Tongues lolling, flank brushing flank as they squeezed through the brambles, they loped along the bank, downstream, keeping the baying of the hounds upon the windward ear so the taint of man and dog blew to them on the wind that carried their own scent away from their pursuers. Leisurely, merrily, they trotted so for a good three miles. And then Quicksilver swerved.

With the utmost caution, ears cocked to follow the yelping of the pack, they recrossed the stream and circled, until sharp little wet black noses picked up at last the fresh strong trail of their pursuers. Quicksilver spoke softly, in a little yapping whine, a word of warning to her, and side by side they settled into an easy gait on the heels of the hunters.

With step like the snow, invisible as the wind, the silver fox and the red one drifted behind the noisy great lumbering creatures that hunted them—the men shouting and crashing in the underbrush, the dogs baying and boasting noisy menace. All through the woods, for a mile ahead where the crows had telegraphed warning, rabbits and squirrels and bird folk scattered before the reeking, roaring, blundering party. Like shadows before a candle the wild life shrank away and dissolved at their coming, and wherever they turned they walked in an empty wilderness, but for the two stealthy shadows that followed, followed, followed, where they went.

But it was the very folly of the hunt that betrayed the strategists. A scatterbrained young hound pup, losing interest in the faint rank fox taint fading always before him, bounded off on a rabbit trail that circled around to windward of the following foxes. Catching their strong fresh scent he raised the hue and cry with a howl, and the hunt broke and raced back in turmoil. Where the birches parted on a barren of lichened rock Rufa broke through a moment after Quicksilver, a moment too late, for the sharpest eyes of the farmers spied her and sent a shot scorching after that grazed her racing shoulder.

In real peril now, the two made straight for the wildest of all the country. Over Foaming Brook they passed, and up its long gully, through Hawthorne Notch, and round the deep circle of Echo Lake, where Quicksilver had stamped upon the ice on winter nights, where now the frogs were querulous in the water grasses. Up through the deep spruce woods, and all through the dark mosses, where the (*Continued on page 43*)

Up from his kennel, tugging on his chain, sprang the big blotched hound, roaring vengeance.

The Diving Fool

By Franklin M. Reck

Illustrated by George Avison

I STUMBLED on to "Sunny" Ray one afternoon in the pool at the State College gym. I had just taken a dive—a front jackknife—and was hoisting myself over the edge of the tank when I caught a glimpse of a flashing white body bouncing off the end of the springboard and scooting up into the air. That was Sunny Ray, although I didn't know it then.

What caught my eye was the surprising height of his dive. I craned my neck around to see the finish of it, meanwhile supporting myself foolishly half in and half out of water. What I saw gave me a warm thrill. At the very top of his dive, he bent easily at the hips and gracefully touched his extended toes with his fingers. He opened out effortlessly and was perfectly straight before he entered the water. The same dive I had just completed—only much better done.

A pleased glow crawled up the back of my neck as I climbed out of the pool and turned around to watch for the unknown diver to appear. I was puzzled. I know most of the divers in school. I'm the varsity diver myself. And nobody in school could do a front jackknife like the one I had just seen.

When the head finally bobbed up, over near the polished nickel ladder, I saw a mouth framed for a laugh, and a pair of alert, chuckling eyes. A fun-loving face if there ever was one. Not mischievous—but radiating fun.

I stepped on the board, feeling elated, somehow, and without a moment's hesitation performed a fairly difficult dive—a forward one and a half. That's the one where you make a complete somersault and a half and enter the water headfirst. The moment I completed it, I thrashed quickly to the ladder, climbed out dripping, and looked around at the board. Fun-loving was just stepping forward, and in another instant he was flying like a bird for the ceiling. High up, he tucked, turned one and a half times and slanted for the water like an arrow.

Golly, but it was beautiful! There was a rollicking challenge in it, too. Grinning all over, I strode out to the end of the board and rose up on my toes with my back to the water. Let Fun-loving try this one! Gathering all my strength, I leaped backward and upward, at the same time pulling up my knees to start my body on its whirl. When the old sense of gravity gave me the order, I thrust out my hands backward and felt myself sliding into the water with a satisfying *suff!* A pretty good backward one and a half, I thought, as I scudded for the edge of the pool. And a blasted difficult dive!

I GLANCED quickly at the board. Sure enough, there was Fun-loving, poised with his back to the water and his arms extended for the jump—just as I had been, a moment before. Up into the air he went. His smooth, white body doubled into a knot, whirled too fast for the eye, and opened out into a perfect arch. In another instant his pointed toes had disappeared softly into the water.

The perfection of it choked me. Why in the dickens wasn't he out for the varsity? I walked over to him, as he vaulted, catlike, out of the pool.

"My name's Weed," I said, sticking out my hand. "Art Weed."

He gave me a firm grip and grinned at me. "Mine's Donald Ray—for no good reason."

"I just wanted to say," I told him, "that I know about three more hard dives, but something tells me they wouldn't stump you. Who'd you dive for last?"

"Nobody."

I was surprised. "You mean to say you've never done any diving in competition?"

Ray shook his head.

"Where in blazes did you learn?"

His face flushed at my abrupt question. "Oh, just—I don't know. At resorts and places."

"Freshman?"

"No. Second year. I came here from Simpson this fall."

"Why aren't you out for the varsity?"

"Why—I guess I never thought about it. Diving always seemed—well—fun. I've never taken it seriously."

"I think you ought to," I told him earnestly. "Why not be here to-morrow afternoon at three o'clock? That's when the varsity practices."

Ray's eyes lit up with pleasure. "Gosh—d'you think there's any use?"

I caught my chortle before it reached my lips, and shoved it back into its chortle-box. If he didn't know how good he was, I didn't intend to enlighten him. He'd find out soon enough.

"It won't hurt to try out, anyhow," I answered casually. "Will you be there?"

"Sure!" he came back, eagerly.

"Don't forget," I smiled back at him, as I started for the showers. He was looking at me, open-mouthed, face all alight. He didn't take his eyes off me until a group of fellows yelling "Sunny!" drew his attention.

"Sunny," I grinned. "Sunny Ray. . . . Just fits him. Gosh, I like him."

Thrills chased each other up and down my spine as I hurried through my dressing and hustled up to Coach Allen's office. Scotty Allen and I are good friends. I'd do a back jackknife off the Eiffel Tower into a bathtub, if he asked me to. He's a good, hard driver with a well-concealed sense of sympathy and an unfailing sense of humor.

I OPENED the door to his office all keyed up, and as I always do when I'm keyed up, I tried to calm myself—stifle my feelings.

"Hello, Coach," I said, very casually, as though I had just dropped in to pass the time of day.

"Hello yourself," answered Scotty, barely glancing up from the trial cards he was studying. "What are you so excited about? Has the United States declared war or something?"

"No," I replied, slightly disappointed. "Not since morning, anyway. I hate to disturb you, but I just dropped in to ask if you really wanted to win first at the Conference meet."

"I do have peculiar leanings that way," he smiled, still gazing at his trial cards. "But some of the other teams have the same silly idea — particularly Lawrence."

"Would first place in the dives help out any?"

"It would give us five points," he answered. "Why? Have you finally mastered that gainer one and a half? I always said you had it in you—"

"Not me, Coach!" I blurted, joyously. "I know my limit. I know that Kramer, of Lawrence, for one, can beat the tar out of me. But I've just discovered a kid who can spot Kramer ten points and then wallop him! Coach, he's—he's—"

Words failed me.

"He is, is he?" commented Scotty, indifferently. "Where'd you stumble on to him?"

Pent-up words rushed out of my mouth. "In the pool, just a half hour ago. Saw him do a front jack, a forward one and a half, and—gosh—Coach, his front jack would take him over a bar twelve feet above the pool. No kidding! And—"

"Does he keep his feet together?"

"Yes, sir! And his toes pointed. And he arches with his stomach instead of his chest—"

The coach began to look interested and respectful. I ran on.

"He's taller than I am, and slender, and graceful as a cat! He's a diving fool!"

I was just beaming, I guess, because Scotty smiled at me appreciatively. "When do I get a look at this phenom?"

"At practice, to-morrow. He's eligible for the varsity, too, because he's had a year at Simpson! Wait until you see him!"

"I hope he's as good as you say he is," said Scotty, looking at me quizzically. Then he leaned my way confidentially. "I've just come from a meeting of the athletic council. We went over the plans for the new field house, and the council wants to build the pool with only five hundred seats."

"Holy smokes!" I ejaculated. "Is that all?"

"There ought to be two thousand seats!" exploded Scotty. His lips closed in a thin line and his eyes burned so hotly at me that I thought my shirt would catch fire. "I'd give my right eye to win that Conference—show 'em! And a first in the dives would be a godsend. The athletic council ought to wake up!"

"Sunny Ray's your man," I yelped gleefully. "Unless I'm blind as well as cockeyed, there's no diver in this Conference can beat him."

"How about second place, too?" Scotty asked, looking at me intently.

I blushed. I'm only an ordinary diver, and the coach knows it. I just haven't the brilliance—the flash—that Kramer of Lawrence has—or Sunny Ray.

"I'll knock off my usual fourth place."

"Somebody ought to knock off your block!" he snorted.

I laughed. Scotty is always prodding me to be better than I can be, and I'm always trying. But it's like trying to make a silk ear out of a sow's purse—or whatever it is. It can't be did. I'll always be fairly good, but I'll never be sensational.

When the head finally bobbed up, I saw a mouth framed for a laugh and a pair of alert, chuckling eyes.

THE next afternoon, at three, I undressed in record time and fairly flew down the steps leading to the pool. Frank Richardson and Jack Crandall, our two dash men, were already in the water, thrashing out their twenty laps. Several others of the squad were chatting and laughing near the springboard. These hailed me when I slid through the door on the wet tile. The coach wasn't down yet.

Over in the corner, sitting on a canvas chair and studying his curled-up toes, was Sunny Ray. I walked over to him.

"'Smatter, Ray," I grinned, "is your lunch doing handsprings?"

"No, I just—" he turned a slightly pale face upward, "I never did anything like this before."

"Don't worry," I reassured him. "It's just practice."

I knew what Sunny's feelings were. Fancy diving is the tensest, most nerve-racking kind of competitive sport. When you want to vent your energy strenuously, you've got to poise delicately—to make every move just so. And hovering over you, every minute, is the specter of a flop. Sunny, for the first time, was beginning to realize all this. I looked down and noticed him shivering almost imperceptibly.

"Better take a practice dive," I suggested. "Start the old circulation."

"I—I guess I'll wait a while," he replied.

Just then, Scotty came into the pool. I trotted over to him, brought him to the corner, and introduced Sunny.

"Just a minute," the coach smiled, "until I put this gang to work."

A few minutes later, after he had started the distance men on their long grind, Scotty turned to us.

"All right, Art," he called, "go through your dives. You follow him, Ray."

I slapped Sunny on the back. "Give it all you've got," I whispered, and then started for the board.

I completed my swan dive—it felt like a good one—and clambered out of the water to watch Sunny. He was standing halfway up the board, nervously rubbing his hands together. He dropped his hands to his side, clenched them involuntarily, and started. Three steps up the board, a short final leap, and Sunny was traveling skyward. His head was back, his arms outspread, and his body perfectly arched. But just at the top of his dive, he broke—bent at the hips—and dropped headfirst into the pool.

"Gosh, Coach," I murmured, "that'll happen to anybody. He tried to go too high and had to bend to get down."

Scotty nodded. I went nervously to the board for my second dive while Sunny was climbing out of the pool. I was terrifically anxious for him to make good—to dive as beautifully as he had yesterday.

But he didn't. I don't mean that he flopped completely. He just didn't go quite so high, didn't turn

so swiftly, didn't enter the water so cleanly. He was intent, serious, and just a bit uncertain. His last dive was the back one and a half, and he splashed quite a bit of water on it. I turned to the coach. He looked entirely unconvinced.

"You wait," I said, earnestly. "You haven't seen anything."

"He'll make a pretty fair diver," Scotty said gently. "He's a bit green."

I felt like shouting: "Fair diver! You take my word for it, he's a natural-born champion!" But I knew there had been no evidence of it to-day.

IN the next two practices—the last two before the dual meet at Lawrence——Sunny improved only slightly. He was trying desperately hard, but the realization that he was diving before critical eyes seemed to upset him. He couldn't call out the bounding, carefree brilliance that was somewhere inside of him. On Friday the team left for Lawrence, and Sunny Ray stayed behind.

We lost the Lawrence meet by a heartbreaking score —35 to 33. I placed second in the dives to Kramer. Kramer is a marvelously flashing performer—just like Sunny was the first time I saw him.

"Golly," I confided in the coach on the train going home, "I wish I could dive like Kramer! Isn't he beautiful? But—he's no better than Sunny. Not so good."

I said it challengingly, but I didn't get a rise out of Scotty. He just looked at me queerly. Made me want to duck my head, sort of.

During the next week, Scotty began driving the squad. The Conference meet was only three weeks away, and there was one more hard dual—with Tech. So far, we had lost only the one meet, and we had a fair chance for the big title. We worked like blazes and were happy. I had double duty—practicing dives and working out for the relay.

On the Thursday before the Tech meet I got down to practice early. Sunny was already in the pool.

"To early bird!" I yelped. "Found any worms?"

"Fat, woolly ones," retorted Ray. "They're all gone. You might as well trot back to your nest."

"You don't trot to a nest," I reproved him. "You fly. And here goes!"

I stepped on the board and did my swan dive.

"That wasn't high enough," chided Sunny. "You should fly like an iggle. This way."

High up into the air he soared, like a zooming sea gull. I whistled. *That* was something like!

"When an iggle has corns on his feet," grinned Sunny, vaulting out of the water, "he flies above a mounting and scratches 'em—like this."

Three slow steps, that predatory pounce on the end of the board, and he was again shooting for the ceiling. Away up there, he quickly jacked, touched his toes with his hands, and dropped. Straight as a plumb line. No splash.

I chuckled joyfully.

"What happens," I asked him with mock seriousness, "when an iggle has a cramp?"

"He makes for a cloud," Sunny replied lightly, "and doubles up. Poor iggle."

Again he sailed skyward. Unbelievably high up, he tucked, turned one and a half times and zipped for the water. I was seeing the real Sunny now!

"Don't mind me," I told him weakly, "I'm just a ground hog."

He made a couple of mysterious passes at me with his hands.

"Now," he announced in a deep, formal tone, "you're a naviator. A naviator hunting iggles. Chase me."

For a quarter of an hour we played our game. Sunny's face was all alight. He wasn't on inspection now—he was disporting himself naturally and joyously.

"What do you two think you are," grunted Frank Richardson, who had just come in, "a couple of bounding porpoises?"

"Porpoises!" I bellowed. "He called us porpoises! Tell him what we are, Sunny!"

"We're iggles," grinned Sunny.

"We live in igloos," I added.

"And spend all our time iggling."

Frank Richardson backed away from us slightly in awe.

I turned to Sunny. "He doesn't understand," I murmured. "He's an eel."

"And eels," finished Sunny, "can't speak igglish."

Chortling foolishly, he ran to the board and did another perfect one and a half.

There was a lump in my throat, but it tasted sweet. I sensed that somebody was standing close to me, and I turned around to see Scotty looking keenly at the circular ripples that marked the end of Sunny's uncannily beautiful dive.

"I've been watching from the balcony," the coach said in my ear. "I'm beginning to understand."

"Wasn't that wonderful?" I gulped. "He's a diving fool, isn't he?"

Scotty didn't answer, but his eyes were shining.

I DIDN'T sleep a lot that night. For about a half hour I lay in bed and thrilled over Sunny's performance. Then it occurred to me that he was the man to go to Tech with the team to-morrow night. I wasn't particularly needed on the relay. Either Wilson or Harwood could take my place. And the coach couldn't take more than ten men.

"The ax," I grunted, half aloud, "will fall to-morrow."

"Shut up," growled a sleepy voice in the next bed. You just don't have any chance to be sorry for yourself in a fraternity house; so I turned over and shut my eyes.

The next morning, at breakfast, I decided not to wait for the ax to fall. At nine-fifty—between classes—I went up to Scotty's office. I knew he'd be in because he has swimming classes in the morning.

He was studying those blasted time cards of his.

"If you're trying to figure out why you should take two divers to Tech, you can quit," I told him. "I've got two exams next Monday, and I'd be just as well satisfied if you'd let me stay home."

The coach looked at me thoughtfully. "Don't you think you could win first at Tech?"

I had a good laugh. The same story.

"I *know* Sunny can win first. That boy—gosh—" Thinking of those dives he made yesterday left me speechless.

Scotty looked straight at the wall in front of him. I began to get fidgety—to feel that I had spoken out of turn. Tried to help him out with his job, and all that.

"I don't mean," I explained hastily, "that I don't want to go! I do—but—"

"Might as well break Sunny in," Scotty interrupted. "You'd better take a workout while we're gone."

I had a sudden glimpse of that rollicking squad of mermen cutting up on the train and me sitting around a fraternity house.

"I will," I replied, getting to my feet and walking unsteadily to the door. "I—I'll take a workout to-morrow afternoon."

That night, when I saw the gang off at the train, Sunny drew me aside.

"Gee whiz, Art," he blurted out, "this isn't right."

I grinned. "The best man wins, Sunny." I roughed him up a bit, to steer him away from anything sentimental.

"B-but," he said, holding me off, "I'm not sure I'm the best man."

"You've never seen yourself dive!" I chuckled.

That night, at the fraternity house, several of the brothers wanted to know why I wasn't out of town with the team.

"Trying out a new diver," I explained. "Sunny Ray."

"Is he good?"

"He's the coming Conference champion," I asserted, with conviction.

"Hock," mourned one of the fellows. "I thought we had the coming champ right here in the house!"

"Don't be funny," I grunted.

Saturday morning I had a couple of classes. In the afternoon I went down to the pool and punished the springboard savagely. In the evening I went to the movie and saw nothing on the screen except my mind's picture of the team battling Tech—of Sunny soaring upward. After the show I hurried to the *Campus Daily* office to get the results.

"We won, 40 to 28," Spike Hanlon, the sporting editor informed me, as he handed me the summary.

I SCANNED it eagerly to see how Sunny had come out in the dives. Halfway down was this paragraph:

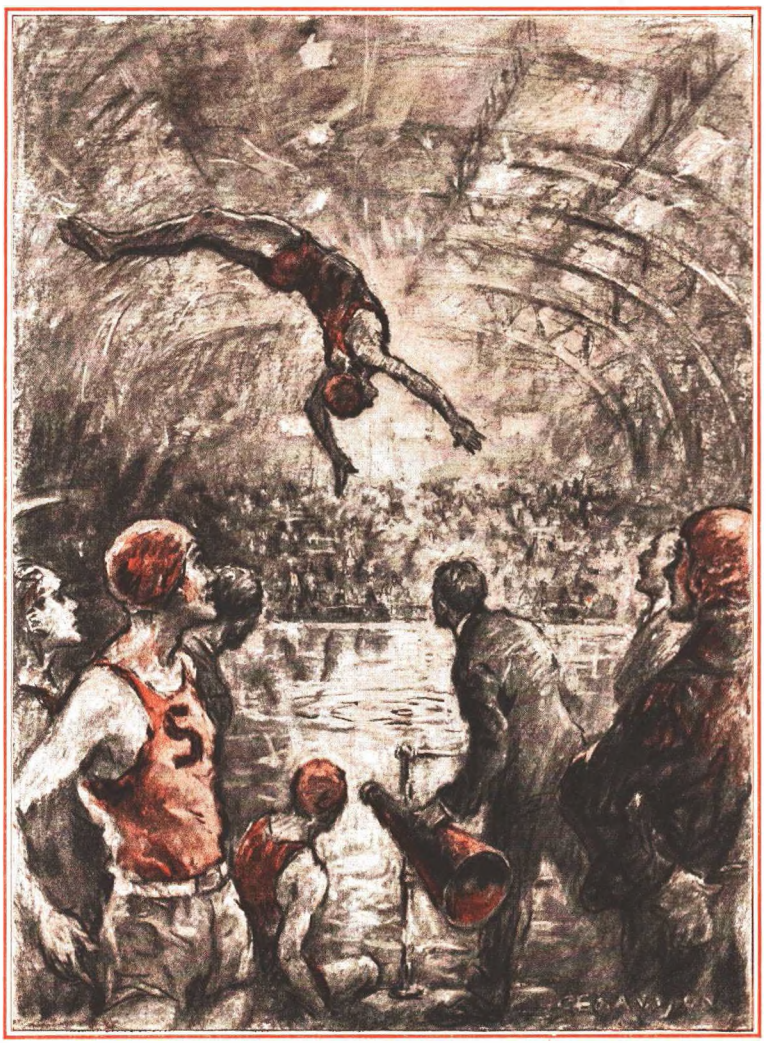
"Fancy dives: First, Marlowe, Tech, 108.6; second, Floyd, Tech, 102; *third, Ray, State College, 96.*"

Sunny had flopped! I knew what had happened just as though I'd been there. I could almost feel the coldness that possessed Sunny's knees the first time he walked out to the board before a thousand rooters and three judges. Just like walking up to a blasted electric chair!

"Just the same," I murmured, "he's the greatest natural diver I've ever seen. And he's going to win first at the Conference!"

Monday afternoon, just as I went into the locker

(*Continued on page 50*)



Sunny's last dive brought forth an unrestrained outburst from the crowd.

Winged War

By Thomson Burtis

Illustrated by H. Weston Taylor

Synopsis of Preceding Installments

FOR a moment, as Delroy came toward them, Russ felt as though the earth had risen up and hit him in the face. A thousand conjectures raced through his mind. He visualized the first time he'd met Duke Delroy—in the Colonial Club at Tampico where the oil men had commissioned Russ and Blackie Williams and the Duke to capture the mysterious flying bandit known as the Hawk. At that first meeting, a note of warning from the Hawk had been delivered to Russ. Then, at the Tampico flying field, after Russ had almost lost his life by leaping from his plane in a faulty parachute, he'd found a second note. The note had shown that its writer had had full knowledge of the parachute jump. And only Blackie and Delroy had known it! At first Russ suspected Blackie of being the Hawk. But when his suspicions had crystalized into conviction, news had flashed into Tampico that three bandit planes were descending upon the pumping station of Rebrache to get the hundred thousand dollar pay roll concealed there. Russ, Blackie, and Delroy had climbed into their *Bullets*, flown to Rebrache, and wiped out that gang, accidentally setting fire to a well during the battle. Russ had known then that Blackie couldn't be the Hawk, because Blackie had fought the bandits as grimly as had Russ.

But after the scrap, Delroy had trotted off to his own little well back in the monte. And a few hours later, when Russ and Blackie had been sleeping off their weariness in one of the station's huts, in had walked the masked bandit himself! The Hawk—six feet tall, deep-voiced! Sardonically, he had tied up Russ and Blackie, and Richards, the stocky ex-Ranger. Debonairly he had warned them to quit the chase. Indifferently he had told them that the three bandit planes that had descended upon Rebrache were not his—that probably they belonged to some higher-up in the oil companies! That General Sancho Perana, the Mexican who was supposed to protect the oil property, was nothing but a glorified bandit.

Calmly, then, the Hawk had kidnaped Russ in one of the company's *Bullets*. Astounding events! And even more astounding developments had followed. In mid-air, by a ruse, Russ had compelled the masked Hawk to jump from the plane. With his hands bound in front of him, he'd flown the ship back to the pumping station, risked his life in a successful attempt to put out the disastrous fire by flying across the spouting column of the burning well, and had landed to face a new complication: General Perana and his ragged men, telling Salty Bexar, superintendent of the station, that they had orders to get the hundred thousand dollar pay roll and move it to a safer place! Clumsy ruse to cover a bare-faced steal!

Ingeniously, by threat and the promise of reward, Russ had induced Perana to go after the Hawk, who could not be far away after his parachute drop. Russ, Richards, and Blackie themselves, with a fourth companion, had mounted horses and ridden out along a *brecha*—a rough road hacked through the mesquite. And then, while they had stood there debating their next move, Duke Delroy had come striding into the picture!

With the Duke's appearance, Russ was struck with the thought that Delroy could have written both of those threatening notes. In both cases he had been on the spot and had had time to frame them. But at that point another thought struck Russ and his constricted heart relaxed as a great wave of relief rolled over him. Delroy couldn't be the Hawk—

Russ was flying very low and there was continuous sniping at him from the ground.

Chapter Eleven

"DUKE, what are you doing here?"

It was Salty Bexar's soft voice, but somehow that question was like a whip lash. The lanky, competent young oil man's eyes flashed from Delroy toward Russ, an unspoken question in them.

"Well, boys and girls," the Duke returned blithely, "you have some grounds for astonishment, I'll admit."

The middle-aged, mahogany-faced man whom Russ knew as Hub—the man second in command to Bexar at the pumping station—was pulling at his sun-bleached mustache. He was chewing tobacco with quick, nervous movements of his jaw and it seemed as if he could hold himself in no longer.

"Farrell, what did that there Hawk look like?"

Delroy threw back his head and his gay laugh resounded through the night. "Don't tell me the Hawk's been around here!" he gasped.

"Yes, he's been round here," Hub told Delroy levelly, "and in fact he's not more than three miles away from us this minute, somewhere out there in the monte."

"That was the Hawk who was dropped out of that airplane?" Delroy demanded, his handsome face radiant with delighted interest. "Was it Blackie who dropped him out?"

"No, I did," Russ told him.

"What happened?"

"Before we go into that," Salty Bexar said, his voice trembling slightly, "just tell us—how do you happen to be around here?"

The four oil men crowded up to the Duke unobtrusively till they fairly surrounded him, and Bexar's sharp countenance was very close to Delroy's as he leaned in his saddle to ask that question.

"Nothing simpler, my boy, nothing simpler," Delroy said gaily. "About ten miles out Charlie and I had a puncture. Soon as we got that fixed and started again we had another one and no spare tire. We finally left the car at the side of the road and started back for the station to get a new tire, and as we were trundling along the road, sore as blazes, we saw a ship take off, and that interested me strangely. Then I saw a parachute drop—I was just about opposite the spot where you dumped him, Russ—and I went plunging into the monte to get the bird, whoever he was. I figured he'd surely be hurt. I thought I knew where he'd fallen, and I made a bee line for the place, keeping my eye on a star, but I couldn't locate him. Probably he'd disappeared. Or else I didn't hit the exact place, but if that 'chute had been hanging on to any trees, I'd have seen it, that's a cinch."

Russ felt himself relax even further, and Salty Bexar drew a deep breath. "Where's Charlie?" he demanded, and there was not so much menace in his voice.

"Charlie had blisters all over his feet and he went staggering on to camp. He said with emphasis and considerable heat that the way he felt he didn't care who was out in the monte. He had no curiosity about it."

"Listen, Bexar," Russ interrupted, "I know what you're all thinking, and I did, too, at first. You think the Duke here is the Hawk. Well, he isn't. The Hawk is a couple of inches taller, weighs fifty or sixty pounds more, has black hair and a gold filling in his front tooth. So that's that."

In a second, the oil men's bodies seemed to slump and they dropped away from Delroy. The Duke treated himself to another laugh.

"I don't know whether to be flattered or insulted," he chuckled. "But I'm mighty glad I'm not too close a double for this egg. What's up now? What are you out here for—doing a little searching?"

"Sancho Perana and about two hundred men are beating the monte for the bird," Bexar told him. "It's a wonder you didn't run into some of them."

"Dog-goned lucky I didn't, I guess," Delroy remarked. "Come on, tell me everything. What happened, and how did that fire happen to go out all of a sudden?"

THEY told him the story briefly. Every few seconds, distant shouts and the crackle of bushes indicated that Perana's men were hard at work. The airplane piloted by Blackie Williams flew across them on its way to the landing field. Evidently Blackie had given up hope of spotting the elusive outlaw.

"And so," Russ concluded, "we don't know exactly

where we stand except that we're sure of getting the Hawk. If he landed in this monte without hurting himself, and he evidently did, it's just a plain miracle. But hurt or not, there isn't any way that a man on foot with only a half hour's start can escape from two hundred horsemen, is there?"

"Not a chance in the world," Hub said emphatically. "This gang of Sancho's knows every foot of the jungle. They're spread out right now, farther away than he could possibly get, and will be driving him this way."

"He can't make two miles an hour through the monte around here," Delroy agreed. "Perana'll certainly be on his mettle, too. That fifty thousand dollar reward, alive or dead, will look sweet to him—"

"And the glory'll look a lot sweeter," Bexar said disgustedly.

"He was going to move the money to a safer place, was he?" Delroy grinned. "Now, if that isn't a pretty story! I suppose White and Ransome would trust a doubtful bird like Perana with a half million!"

"You might try to explain one thing to me," Bexar said gently. "I'd like to know how Mr. Perana knew where the money originally was hidden."

"Oh, he knew that, did he?" Delroy inquired oratorically. "The soup commences to thicken! How about those flyers? Did they know, too?"

"They did," Hub growled. "It was only the sight of your ships in the air that saved that dinero. That's when we switched it."

"I see," the Duke said thoughtfully, and suddenly his eyes were shining. "Russ, you said that the Hawk suggested that he wasn't the only outlaw operating around these parts, didn't you, and that he said those ships we disabled weren't his?"

"Yes," Russ told him, "and furthermore I'm convinced right now of what's up."

"Yeah? What's on your mind?" Bexar inquired wearily.

"I'll tell you," Russ blazed. "There's a lot of dirty work floating around these fields that originates right at headquarters. It looks to me as if there were a couple of big bugs around Tampico doing a little robbing of their own companies, one working on the ground through Perana, and the other one with a fleet of ships. Whether the Hawk is in with either crowd, or whether he's playing a lone hand, the fact remains that a renegade Mexican bandit leader and a bunch of strange flyers wouldn't know where that money was hidden, unless somebody very high up was in cahoots with them. How many men knew the money for the pay rolls was here?"

"I can answer that quickly," Bexar drawled. "Up to the time that ship landed, Richards, Hub here, and I were the only ones who knew it. The truck that carried it down here was driven by a man who thought he was transporting cases of machinery. As a matter of cold facts, the original spot where the money was, was right in a shed. The money boxes were unopened and lying alongside boxed machinery."

"Then this whole business is being worked right from headquarters!" Russ exploded, and the little group of men nodded.

"Listen," Bexar said suddenly. "There's no need of our staying around here. Looks to me as if the sump fire had burned out, or pretty close to it, and we can spare some men. Our place is back at the camp, and mine is on the telephone. We'll send out some men to watch the roads when we get back. Don't forget we've still got old man Perana to deal with before long."

SUDDENLY Russ felt very weary as they wheeled their horses and started back. He felt as though he would fall asleep at any moment. Yet, vaguely troublesome thoughts harried him. He was too tired to think clearly or logically, but he had a sense of foreboding as though something that would hurt him was right around the corner.

"Russ, old-timer," came Delroy's voice, "on the strength of this afternoon's revelations, I conclude we were wrong in a little of our detectiving to-day."

"Uh huh," mumbled Russ.

"Of course," Delroy pointed out, "if those three ships we wrecked didn't belong to the Hawk there'd be no reason for the Hawk not to fight them as well as us."

"What are you getting at?" Hub inquired.

"Oh, nothing," Russ told him hastily. "We just had an idea that was knocked into a cocked hat this afternoon. Remember this, Duke, we both owe Blackie Williams plenty. We'd have been gone goslings if it hadn't been for him letting that ship pot at him while he saved us."

"Right you are," Delroy agreed.

The conversation about Blackie recalled to Russ something he had almost forgotten in the course of the day. That was Duke Delroy's passing him in a parachute and saving his life. One thing was certain. Never had a man had two such comrades as he had. And yet that feeling of impending disaster would not down. He could not get his teeth in it somehow. He should be feeling vastly contented, he reflected. The Hawk would certainly be captured, the job had been done, and even the menace of Perana did not seem important now. The bandit had doubtless been scared off anyhow by the threat of airplanes.

The exhausted young flyer's head drooped and he fell sound asleep on his horse. He didn't know until they arrived back at the camp that Delroy had switched horses—Duke had been riding behind Hub, that gentleman having the largest horse in the crowd—and climbed up behind Russ to hold him on. He almost fell off his horse and said weakly, "I've just got to get some sleep."

"You and me both," Delroy agreed.

"Hop to it, boys," Salty Bexar grinned. "You've certainly had a day's work."

"Senor Bexar—"

It was a young Mexican in the door of the tiny office that was next to the bunk house where Russ had slept before.

"Yes, Manuel? What is it?"

"We try to call up as you say, senor, and the telephone does not work. Juan, who come in half hour ago with the pipe, notice on the way that ten miles out the wire, she is cut."

In the tense silence that fell over the group, something electric snapped Russ out of his weariness. The telephone line he knew was a private one.

"I see," Bexar said slowly. "Somebody, probably Perana, doesn't want us to communicate with headquarters!"

The tall, lean form of Blackie Williams, arrayed sketchily in riding breeches and an undershirt, filled the doorway of the bunk house before them.

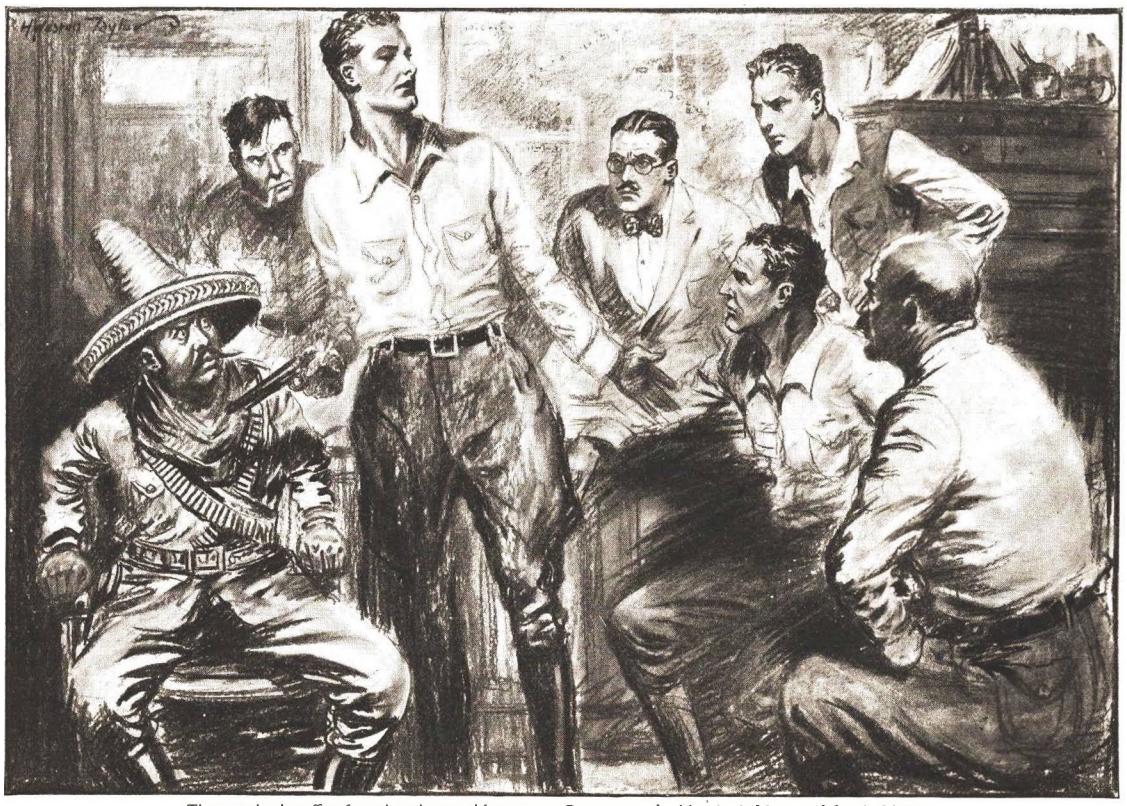
"If I overheard all this correctly," he drawled, smoothing his tousled black hair, "it means that Mr. Perana is going after his little raid on the treasury in a pretty big way."

He did not notice Delroy, apparently, for the Duke was standing in the rear of the group, behind a horse. Blackie came down the steps and his long, narrow eyes were glinting with the look Russ knew so well.

"The first thing that's got to be done," he went on slowly, "is to get those ships in shape and armed. One of us will hold the fort against Perana, Russ, and the other one can skip to Tampico right now and find out what's what. I hope Perana doesn't bump off the Duke by mistake."

"He won't," laughed Delroy. "Here I am. Charlie told you, eh?"

"Good boy," grinned Blackie. "Didn't run across the Hawk, did you? Well, Perana will. I couldn't spot anything myself from the air. The parachute had disappeared and the jungle's too thick. I'm glad you're



The men in the office froze into immovable statues. Perana stared with mingled hate and fear in his eyes.

Finally satisfied, the oil man got off his horse and came forward.

here, young fellow, because I've got a hunch that our troubles aren't over!"

Six hours later the burning morning sun blazed through the screening around the bunk house on five motionless figures. There were only four beds, but Russ and the Duke were curled up side by side on one of them. The others were occupied by Salty Bexar, Blackie Williams and Richards. The roar of Well No. 2 was powerless to disturb the exhausted men.

Perana and his army were still beating the monte but the business of the pumping station was going on as usual. Groups of Mexican and American laborers trooped noisily in to the cook house next door, but not a man in the bunk house stirred.

It had finally been decided that Hub—Hubbard, his full name was—should drive to Tampico rather than take away a ship that might be needed. Russ hadn't stumbled into bed until three in the morning, after he had helped solder the radiator of the crippled ship, draw the two ships by hand down a roadway on which they could take off, and hide them in the monte at one side of it. They were taking no chances on what Mr. Perana might do when he returned. If he had any sense at all and did plan to make away with the money, the first thing he would do would be to make sure there were no ships in the air.

Chapter Twelve

RUSS didn't realize it, but he had been on Mexican soil only twenty-four hours when he was snapped into wakefulness. Blackie and Delroy opened their eyes at almost the same second. From the air came the unmistakable drone of an airplane motor.

None of the flyers had removed his clothes, and as if motivated by one impulse, each made for the door. Delroy, as clear-eyed and debonair as though he had had a full night's sleep, was first to reach it.

"One of the oil company's ships," he said. "White or Ransome or one of the big bosses, mebbe."

"I hope so," came a voice from Salty Bexar's bed, and that elongated young gentleman also arose.

The bunk house, which was on the top of a slope, commanded a considerable view of the surrounding country and Blackie Williams suddenly pointed to a section of trail that was visible five miles away.

"It looks as though the general were on his way back," he remarked.

"Sure does," agreed Russ excitedly. "He must have the Hawk, don't you think?"

"We'll soon see," laughed Delroy. "If he hasn't, he's the sorest spig in all Mexico this minute. Let's go over and meet the arriving guests, eh?"

All three pilots, accompanied by Bexar, walked over toward the landing field. But Russ, as though his subconscious mind had been working all the time he'd been asleep, came to a sudden decision. His freckled face paled a bit and the blood raced through his veins. He tried to stop himself, but an ungovernable impulse carried him on. Somehow he didn't want to consult Blackie or anyone else.

"Listen, Duke," he said abruptly. "Come back here with me, will you?" He couldn't wait for a more opportune time or place—some inner compulsion speeded him on.

"Sure, Red. What's on your mind?"

They dropped behind the others about twenty-five feet. The plane was circling for a landing, now, nearly a quarter of a mile away.

"Listen, Duke," Russ said slowly, his eyes clouded with trouble. "I'm not forgetting that you did plenty for me yesterday, and I'm not forgetting how you stuck in the fight yesterday afternoon. But what would you say if I told you that I knew you weren't Duke Delroy at all, but that your real name is Avery, and that you're Arch Avery's brother?"

THESE words were a combination of bluff, a wild shot in the dark, and an attempt at being tactful. Blackie had said yesterday that Arch Avery did have a brother who had been a flyer. And yet, Russ prayed that he was wrong.

He did not look directly at Delroy. The debonair Duke was unarmed, he knew, and every muscle in Russ's body was tense, waiting for anything from warding off a blow to forestalling any attempt to escape.

"Are you going cuckoo?" Delroy asked him casually.

He stopped and Russ did also. The other three men kept on walking. As Farrell's eyes met the clear grey ones before him, his own wavered unhappily, but he couldn't stop.

"You think I'm the Hawk, do you?" Delroy asked him, and his eyes were sparkling as though he were enjoying the situation to the limit.

"I know what I'm saying, Duke," Russ went on. "And I'm probably wrong, but I've got to find out. Neither you nor Blackie—nor anyone else—can kick if he's asked to prove himself."

"In other words," Delroy grinned, "when I came strolling out of the monte you got suspicious?"

"Yes," Russ acknowledged. "It sounds queer. This Hawk guy was bigger than you, and yet it could be possible, Duke. I don't know how, but it could be. You could have sent that note in Tampico, and you could have planted the other one in my pocket, and you could have apparently started with your pal for your oil well, put on your disguise and come back deliberately, knowing the lay of the land, to steal a ship as the Hawk would."

"How do you account for the difference in our appearance?" Delroy asked him slowly.

"I can't," Russ admitted.

A tense silence seemed to make the atmosphere heavy. The amazing Delroy was grinning like a Cheshire cat, and yet that didn't ease the underlying tautness that was almost choking the fiery Farrell. Suddenly, Delroy threw back his head and laughed. It was such a genuine ringing burst of mirth that all at once Russ felt like a foolish kid. Then, with a movement that was like a flash of lightning, Delroy's right hand darted to his left shoulder. His olive drab shirt was open at the neck and in a split second the dazed Farrell saw a gun appear in his hand. But the gun was thrust out butt first.

"Here's my gun, Russ," he said quietly. "Now you can be sure I won't escape."

The dumfounded Farrell took the gun automatically. "Why—what—" he stammered.

"Sure," Delroy said briefly. "I don't blame you for wondering about me. Furthermore, I could have changed my get-up by having boots that were built up a couple of inches higher and by wearing one of those rubber jackets that can be pumped up to make me look bigger around the body, and I could have easily stuck some false black hair in the helmet. The best disguise, you know, is the one assumed before the crime, not afterward. And I could even have stuck a fake gold filling on my tooth, as far as that goes. Any man can alter his voice."

IN these last three words the Duke suddenly dropped his voice. Instead of his resonant baritone, an unstrained bass came from his throat. The stupified Farrell for a moment thought he was listening to the voice of the Hawk.

"You're certainly taking it hard," Delroy laughed at him. "It's all between friends, Russ, and I don't blame you a bit. I know, of course, that even if I happen to be Arch Avery's brother you'd have no way of knowing it or suddenly finding it out in the last few hours. I know that you were just making a big bluff to try to get the truth out, and all that sort of thing. There's one thing I'd like to know, though."

"What's that?" Russ returned mechanically.

"How do you account for me trying to kill you in a parachute and then saving your life?"

Suddenly Russ found himself laughing helplessly. "I don't know," he acknowledged.

"Of course," Delroy told him, "the parachute could have failed itself, and I, being a very versatile and resourceful young man, could have leaped on it as an excuse to try to scare the efficient Lieutenant Farrell out of probably becoming my most dangerous foeman."

Russ was still holding the gun pointed at Delroy.

"Now listen, old-timer," the Duke went on gaily. "You keep that gun and we'll go along just as we have been until my skirts are clean—officially, I mean. And don't for one minute think that (*Continued on page 45*)

The Brass Candlestick

By John A. Moroso

Illustrated by W. W. Clarke

OUTSIDE, the rain poured down in a leaden sheet, crushing Jim Tierney's geranium bed and muddying the colorful petals. The detective stared through the front window of his little New Jersey cottage, his fat and usually smiling face traced with gloom.

"Play a tune on one of your horns," called his housekeeper, Mrs. Murphy, from the kitchen.

"Can't. I gotta split lip," he shouted back peevishly.

"Read a book, then."

"I ain't gotta book."

"Sure you have, Jim." Mrs. Murphy strode into the front room, massive, competent, her forearms white with flour from her pie-making labors. "Don't you remember the book you got four years ago for Christmas?"

She opened a closet and rummaged until she found the volume that constituted the retired detective's library.

"What's it all about?" Jim lowered his heavy body into an armchair resignedly. "I don't want to be reading any of this romance stuff, if you get me, Maggie."

"Romance stuff?" she laughed. "Was you ever in love, Jim?"

"I was—once. I got cured. I was two hours late getting to the church and the girl's old man give me a punch in the eye."

"Why was you late, Jim?"

"On my way to the wedding I seen Dopey McKnight following a bird with his pay roll—"

"I know the rest, Jim. You forgot you was to get married and you followed Dopey."

"Sure, what else could I do?"

The wind slammed the rain hard against the window-panes and skirled in the eaves of the snug little house. Tierney took the book cautiously, as if he were afraid it would snap at him. It had never been opened and the little red and green ribbons of Christmas were still tied about it. He read the title, "Justice and the Poor." The author was a Boston lawyer.

MAGGIE returned to her pastry board as Tierney untied the ribbons and began, lazily, to look through the volume for pictures. A sheet of paper fluttered to the floor from within the book. The detective—known to the world as "Bonehead"—picked it up. It was a message for him and a most unusual one. The person sending it had used neither pencil nor pen nor yet the typewriter, so careful was he to keep his identity secret. Words had been cut from printed matter and pasted together. It was neatly done. The message was:

It is a police theory long held that a circumstantial case is much stronger than a case presented through eye witnesses because documents and inanimate objects cannot lie or become confused. No cross examination is possible.

But documents can be forged with great skill, chairs may be placed in certain positions, tables upset, the floor of a room strewn to give semblance of a struggle, windows broken and so on. A murderer may leave behind him the hat or necktie of another man. He may even leave from a wax or plaster impression the finger prints of another man.

Of course I refer to the Williamson murder. Think it over. William Bright has been sent to prison for life for the crime. There is plenty of time.

The afternoon was waning and the storm was rising in intensity. Tierney read the message again and again. He drew a flat table from the wall and adjusted a brilliant droplight. He then went to his bedroom and from a bureau drawer took a large leather case. It contained a microscope, many calipers, a small camera with a wonderful lens of German make, and many enlarging glasses.

He remembered the Williamson murder very well—at least the high lights of it. David Williamson, shrewdest of New York real estate manipulators, unmarried, miserly, had lived alone in a little three-story brick house, close to the East River in Manhattan, and in the shadow of the great gas tanks under the Blackwell's Island bridge. The old codger had been found lying on the floor of his library with his skull crushed in. William Bright, captain and owner of the barge *Susan K.*, who owned a valuable piece of shore front property within two blocks of the Williamson house, had been arrested, charged with the crime, and convicted of murder in the second degree.

Tierney's success in life as a detective was built upon the use of good common sense. He had tried to read detective fiction but had never been impressed. Theories were all right for youngsters. But for old-timers, he held, motives for crime would uncover themselves quickly enough when practical clues led to the shadowing and investigation of all possible suspects.

"Now what I gotta do," he mused as he worked over the four-year-old message, "is to find the guy that took the trouble to send me this jig-saw tip."

Evening came and from the kitchen tempting supper odors floated out. To drive away the gloom of such weather, Maggie had prepared a feast. There was a fine roast of beef surrounded by golden brown spuds. Snap beans bubbled in a pot along with a ham bone to give them the right flavor. There were banana fritters sputtering in a pan. On the table, a big, clean loaf of homemade bread. Pies! A row of them.

The windows of the cottage glowed against the storm, and old Rover, prone beside the big stove in the kitchen, kept up a steady thumping on the floor with his huge shaggy tail.

"Jim," Maggie called. "Come and sit. "Here's a dinner to make a man glad."

The usual shout of delight from the front room was missing, and Maggie, brushing the gray-streaked black hair from her temples, went forward.

"Come on and carve the roast, Jim," she urged.

"Maggie," he replied, removing his eye shade, "I think we got an innocent guy in Sing Sing for life."

"Did you put him in, Jim?"

"I helped. He's been in four years and, as I remember, he left a young wife and two children on a barge called the *Susan K.*"

"The poor woman," she sympathized.

"They might be hungry this minute, Maggie. Before I eat I'll get Inspector Sweeney on the wire and have him locate 'em and see that they're all right."

"Good boy, Jim. I'll cut the meat."

Assured by the inspector that the Bright family would be found and looked up immediately, Tierney had his dinner, lit a cigar, and returned to his work table.

THE patchwork message was done with great neatness. The words were evenly spaced and the margin line on the left was straight. It must have required no little time and patience. The cut-out words were pasted on a sheet of thin paper.

Tierney had no available reference books on type, but he knew that the printed words were in type larger than that used in novels, and that they were "bold-faced"—blacker than regular type. He concluded that the words were cut from some kind of pamphlet—probably an advertising pamphlet. There should be words—or parts of words—on the reverse side of each clipped piece.

With steam from Maggie's kettle he softened the paste and peeled off, one by one, the words from the sheet. Patiently he studied the letters thus uncovered, the fragments of words and occasionally a complete word. On the reverse side of the longest word in the message—"circumstantial"—he found printed "Sherman Square," twelve letters in all. He felt a little glow of satisfaction. "Sherman Square" was a definite clue. There weren't many business buildings adjoining that little park.

At midnight, the storm had died down and Bonehead paused to rest his eyes and his wits. The stars were shining again. His telephone rang and Tierney learned that Mrs. Bright, wife of the convicted captain, and her children still lived aboard the barge, which was now anchored in Hudson River, taking on a cargo of building material at Yonkers. Good. The village taxi could run him to the edge of the river in a half hour. The ferry would take him to the wharves of Yonkers on the opposite shore.

"I'm getting a good break," he assured himself with a grunt of pleasure.

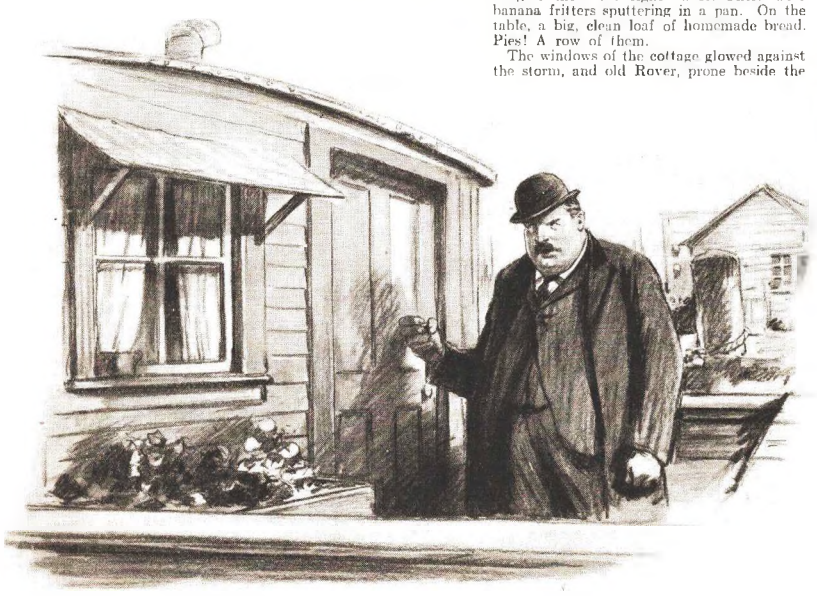
It was fine to be helping a man out of prison, for a change. His entire life had been spent in getting 'em in and trying to keep 'em there.

He studied the clipped words with renewed intensity. He made out the fragment "merc—" and his best guess was "mercy." Among the few complete words on the reverse side were "God," "help," "need" and "poor." He became convinced that the sender of the message had clipped up a report of some charitable or religious organization, the headquarters of which he would find in Sherman Square.

Tierney turned off his light, tumbled into bed, and slept soundly until the sizzling of the morning ham and eggs awakened him.

THE ancient taxi shivered at his gate as he swallowed his breakfast, grabbed his derby, and waved a genial hand at Maggie. Off he rattled under arches of brilliant foliage, through the village and steadily upward to the crest of the great wall of tree-crowned rock that cuts off the pleasant Jersey valley from the city. The motor antiquity, brakes on, slid screeching down a winding road to the river. Tierney in a half hour was on the other side, aboard the *Susan K.* He tapped on the cabin door.

"Come in," invited Mrs. Bright, a pretty woman nearing thirty, but with the gray of trouble in her dark hair. "These are my children—Bill, ten years



Tierney, in a half hour, was aboard the *Susan K.* He tapped on the cabin door.

old, named after his father, and Janet, eight."

Tierney sat down promptly for his head was scraping the cabin top. The morning sun poured into the combination kitchen and living room, lingering like sea foam in clean white curtains drawn across the square windows. A clean red and white checked cloth was on the table. Every dish and kitchen utensil shone brightly and the wide deck planks were white from scrubbing with pumice stone.

"You're the captain, are you?" asked Tierney with a smile.

Mrs. Bright reached for a visored cap and adjusted it. "I have been for four years," she replied cheerfully. "Bill, here, is first mate."

"And what's Janet?" Tierney asked, taking the girl's hand and petting it.

"Oh, Janet," replied the mother with mock seriousness. "She's the princess and this is the royal barge taking her to visit the prince."

"I'm—" began Tierney, but Mrs. Bright interrupted with an understanding glance.

"I remember you," she said. "Now, children, run along for a little while and I'll call you. Keep away from the stringpiece. I know you can swim, but you might bump your heads on driftwood when you fall over."

She put on the coffeepot and arranged two cups and a plate of rolls.

"You've got good news, Mister," she said, when the children were out of sight, "because there can't be any more bad news."

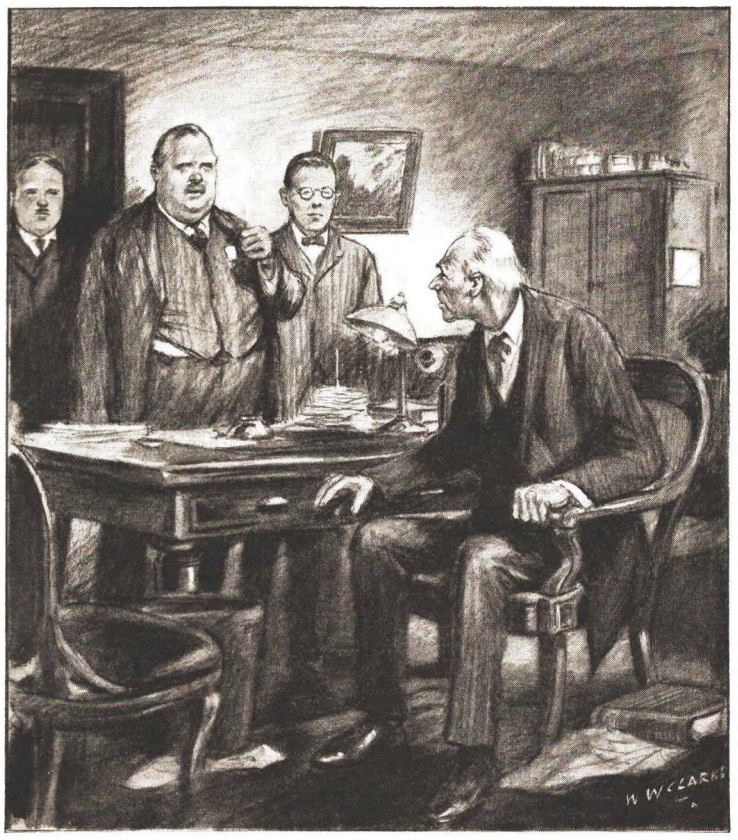
"You've kept your nerve up, Mrs. Bright."

"I've been trying to get up a petition for a pardon for Bill," she said, ignoring his compliment. "I don't believe he killed David Williamson. There's no blood on my man's hands, Mister."

"I want you to tell me just what he said to you the morning after the murder and before the police came to get him," Tierney requested. "Take your time, Mrs. Bright, and use his exact words as near as you can remember them."

"Well," she began, "Williamson held a mortgage on our piece of water-front land. It's only a hundred-foot front but the rich people were building fine apartment houses overlooking the East River and Bill and I knew it might be worth a lot of money in a few years. Williamson wanted to buy it from us cheap. We wouldn't sell.

"Then the trouble came. Bill had put every dollar we had in a new barge, the *Janet*, named after the young one. He neglected to get out the marine insurance the day he should and that very day the *Janet* was rammed and sunk when she was caught in the fast current of Hell Gate and the rudder snapped. We were broke and owed a lot."



"I'm from police headquarters," explained Tierney, flashing his badge.

MRS. BRIGHT set her lips firmly and paused until the moisture had cleared from her eyes.

"That gave Williamson and his partner, Jacob Vollmer, their big chance at us," she continued. "We couldn't even raise the taxes on the little piece of land they coveted and under the terms of the mortgage they started foreclosure. I went to them at Williamson's house, just up the block from where the barge was tied up, and begged for time. But not a bit of help would that pair of sharks give. They were both misers and it's a wonder to me, loving money as they did, that one of them didn't murder the other for what he had."

"Huh!" Tierney's grunt was that of some ponderous, suddenly startled animal.

"Just what I was afraid of happened." Mrs. Bright became highly nervous, twisting the corner of the tablecloth with both hands. "Bill used to drink hard before the first baby came and he was a man of high temper and powerful. The worry drove him to drink again. Filled with drink, he didn't know what he was saying, but lots of people heard him threaten to murder Williamson. Even Regan, the cop, who brought him to the barge for me one night, warned me about this.

"The morning after the murder, Bill woke up in a daze. I gave him coffee and he began to remember what had happened. He said he had gone to Williamson's house and that Williamson had tried to get him to sign a paper. The stuff he had been drinking must have been poison, he told me, for he suddenly went blotto and when he came to he found himself sitting on the front steps of Williamson's house."

"What was the last thing he remembered before the curtain dropped on him?" asked Tierney.

"He said he thought there was another person in the house," replied the wife, "but he doesn't remember seeing anyone but Williamson. He thought he saw the drapery between the front and back room move."

"He didn't testify to that, as I remember," said the detective. "No—of course he didn't. They wouldn't let him testify to what he thought. Only to what he actually saw and heard."

"My lawyer tried to get it in the evidence but it wasn't allowed." Her voice broke under the strain of the narrative. With a sob she cried, "Even the fact that there weren't any finger prints on the brass candlestick that broke the miser's head didn't help my man."

"In these days any man would have thought to wipe off the weapon," suggested Tierney.

"Not Bill, Mr. Tierney. Didn't I tell you his mind went blank suddenly? If he had killed Williamson he wouldn't have had sense enough to wipe off the finger prints. Now, would he?"

"No. I think not. He'd have just stumbled out."

"And the necktie they found in the room," argued Mrs. Bright. "I can imagine him yanking at it until it fell to the floor. In the early days when he drank so hard I've seen him do it many a time. Barge captains don't wear neckties much anyhow."

To Tierney the case seemed to have happened yesterday. He himself had felt sure of Captain Bright's guilt. The threats, the drinking, the motive, all pointed to the captain. Against the overwhelming evidence—nothing.

"Now tell me this," he requested, when the tragic tale was finished. "Has any person offered to help get Bill out?"

"A wealthy young gentleman who gives to the Legal Aid Society tried to get a new trial for me," she told him, "but the courts refused."

"Who is he?"

"Mr. Wilbur Stone. He's very religious and although he is a lawyer and could make lots of money he gives his time to the poor."

"Did he ever talk religion with you, Mrs. Bright?"

"Only once, when he told me that God watches even the sparrow fall." She put her hands to her eyes for a moment. "And—and—he sends me a pamphlet once a month with a lot of comforting things in it."

"Have you got one of those pamphlets?"

"Yes, sir." She brought him one. It bore the address in Sherman Square.

Tierney inspected it quickly and reached for his hat. "Time I got busy. I'll be seein' you soon."

TIERNEY found Mr. Stone in his office, introduced himself, and briefly explained that he was interested in the Bright family.

"So am I," said the rich young man. "The case came to my attention through the Legal Aid Society. I managed to have the mortgage on their little piece of land carried for them although I know I have made a bitter enemy out of that man Vollmer, partner of the murdered Williamson. Mrs. Bright is a courageous woman and despite the evidence against her husband — I have read the record of the trial—none could hear her talk and fail to have some doubt of his guilt."

"You do a lot of church work, Mr. Stone?" asked Tierney.

"I have a men's Bible class on Sunday morning in my church."

"Mrs. Bright tells me that you send out pamphlets."

"Yes. Once a month."

"Have you ever seen this before, Mr. Stone?" Tierney laid on the desk the message of clipped words, repasted as he had received it.

"Why, no. This is strange." The lawyer read the document, slowly, carefully.

"Then some person who receives your pamphlets sent it to me," said Tierney. "I've got to find him. I know you will help me."

"I have only about thirty enrolled members."

"The person who sent this to me knows something about the Williamson murder. He must, at least, know someone connected with the case."

Mr. Stone's secretary brought him the record book of his Bible class. "Here is the list of my men and their home and business addresses."

Tierney took it eagerly and studied the list. He read, finally: "Robinson, Harry, Clerk, real estate; Jacob Vollmer, Crescent Building."

"Could you get this man here for me, Mr. Stone?" Tierney asked.

"I think so. It's about his lunch time, I would say."

"Tell his office you want to ask about a piece of property," suggested the detective.

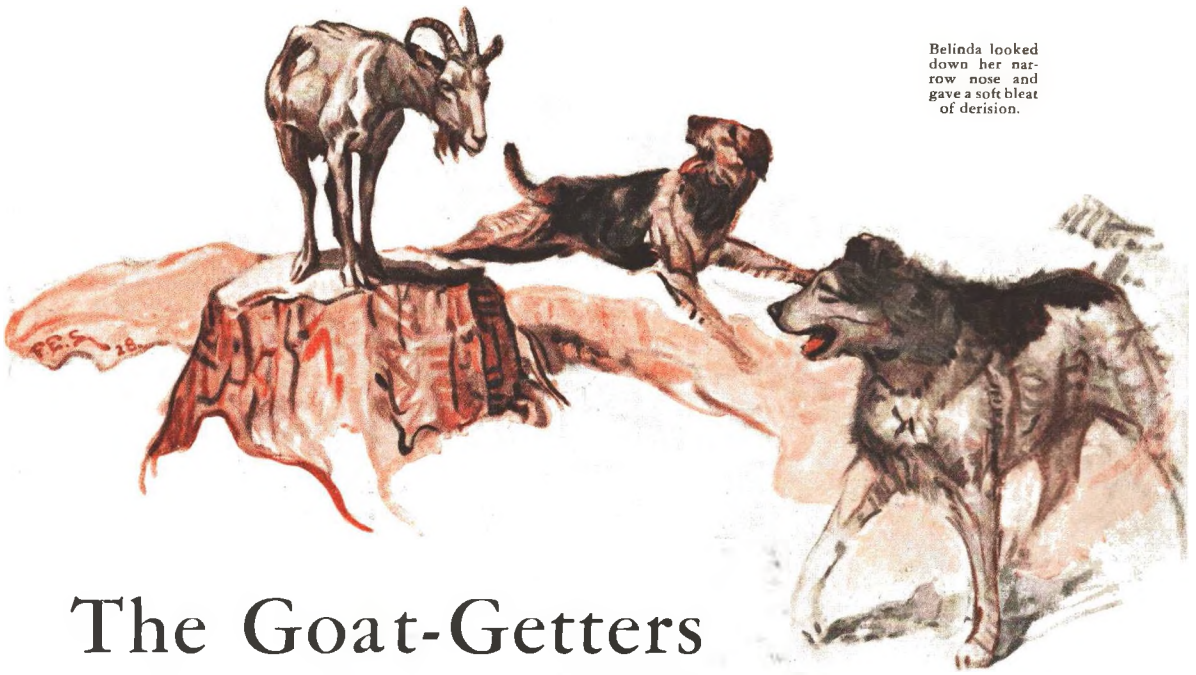
"They'll give him a week off," laughed Stone. "I'll call Vollmer."

A few sharp sentences over the phone and Stone informed Tierney that the clerk would be right over.

"You know, Mr. Tierney," he added, "I believe that Vollmer got this young man to join my Bible class just to make contact with me for business reasons. Robinson was not a likable fellow at first but he got interested in the class and during the past few years—I'd say five years—he's changed unbelievably. He supports a widowed mother and a widowed sister with four children."

Robinson was ushered into the office. He seemed prematurely old. His tired blue eyes stared through horn-rimmed glasses, there

(*Continued on page 35*)



Belinda looked down her narrow nose and gave a soft bleat of derision.

The Goat-Getters

By Hubert Evans

Illustrated by Frank E. Schoonover

"ANYHOW, they gotta stop worryin' my Belinda," the section man insisted, his mouth beneath the dejected wisp of mustache puckered into a semblance of angry determination. "I ain't gonna stand for it. It ain't dignified for an old-fashioned lady goat like her to go tearin' across country like a kid."

Ed Sibley, leaning over the steering wheel of his truck, looked at the irate man who had waylaid him at the railway crossing with such vehement gestures the moment before. "But for the love o' Mike," he interrupted wearily, "how many times I got to ask what makes you think it's *my* dogs that's chasin' her? Seems like folks are getting the habit of gallopin' up to me claimin' Mac and Derry are to blame for everything that goes wrong. Next thing, old lady Henderson'll be sayin' it was them did in her goldfish. I'm fed up to the nozzle with that line of chatter."

"Just the same, I bet it's them—allus rarin' to hunt any old thing."

"Nothing as old as Belinda!" Ed was on the verge of saying, but decided instead on a courteous though vigorous denial. His decision came too late, however; the crackle of brush along the crest of the railway embankment thrust the words out of his mind. And the next instant, when he located the direction of the sound, he realized sadly but completely the futility of further protest. For out of the tangle pranced Belinda, her nanny-goat unconcern a wreck, her staid decorum shattered, her dirty white flanks heaving with exertion; and hard at her heels, capering joyously and growling gleefully, bounded two dogs he knew to be his own. Even as the goat bunched her feet and started a daring though dismayed slide down the loose gravel of the cut, the section man shouted exultantly at this bit of luck, this chance meeting of goat, dogs and masters that proved so positively the truth of his assertions. Now Ed Sibley would have to concede the dogs' guilt!

Before their master yelled to them, Mac, the big Newfoundland cross, and Derry, his irrepressible Airedale partner, sensed that the meeting was an unfortunate one—for them. They were inclined to regret that they were not somewhere else; to wish, indeed, that they had not come at all. Five minutes before they had been loping in the truck's dusty wake. Then their hunting zeal had made them follow a detour, they had encountered the goat, and their high spirits had caused them, in pure fun, to give chase. Yet, there were the two men glaring up as if they had been intent on harm.

Derry looked at Mac and his glance said, "Tough luck!"

Mac, looking down his nose, let his ears go limp in a way which asked, "Can you beat it?"

"Brother, somehow I've a feeling we're not wanted here. Let's barge off while the going's good," Derry suggested by means of a lowered, faintly waving tail stub and a body slightly crouched in readiness for unobtrusive withdrawal.

Mac's great head waggled in agreement, but a short-clipped order from below told them they should have taken their leave, with regretful courtesy, before. "Shake a leg, you blighters," Ed yelled again. "Get down here. To heel, now—and make it snappy."

Well, Derry hadn't been running after that old goat, anyhow. His real interest lay in a crow that had been cawing somewhere around here. There he was now, on a hemlock snag across the right-of-way. Derry barked at it ferociously but Mac, wise in the persistence of humans, paid no heed to the terrier's absurdly optimistic attempt to change the subject. Slowly he eased himself over the edge of the cut and slid down in the wake of Belinda, who now stood, prim and with a maddening self-righteousness on her camel-like face, close beside her master. Derry, whose barks had hinted that, if the truth were known, that confounded black pirate yonder was to blame for the whole luckless affair, felt the ludicrous position into which he had put himself. Oh, well, he hadn't thought too much of the idea, anyway. He stopped prancing, fell silent, and with ears meekly down came sidling close behind his partner in crime.

"Hop into that truck, you pair of roughnecks," Ed ordered. Mac, leaping as easily as a wolf, sailed over the tailboard in a bound. Derry joined him after several attempts that though unsuccessful, were meant to show Ed Sibley that his terrier's intentions, at least, were of the best.

"You shouldn't let her roam all over the shop, anyhow," the chagrined Ed protested. "Why don't you pasture her in the woods down by the river? That's the very best of grazing."

Dundee, the section man, now that he had so completely won the argument, forgot his previous hostility. "I did figger on that," he admitted. "But, by cricky! Ed," and here his voice dropped ominously, "there's a bear in there. I know—I seen signs."

"Another bear—" Ed began, then stopped. So poor Dannie Dundee had been seeing bears again. Almost as long as Ed could remember, Dannie had been seeing bears in the woods close to Twin Forks, bears that no one else saw, bears which left no tracks—in fact, bears which existed only in his own apprehensive imagination. If only Dundee would go out and deliberately hunt a bear, that haunting fear would vanish, Ed was certain. But he was just as certain that the section man had lived so long in apprehension that nothing short of a miracle could make him consider so rash a plan. So he nodded understandingly, promised he'd keep an eye on his dogs, and started the truck up the long hill.

Danny waved, the goat bleated, and Derry, leaning over the tailboard, barked an insulting farewell to the goat, who chewed her cud and eyed him and Mac with demure and aggravating innocence.

Dundee, as the truck rounded the curve, thought complacently that now at last he and his prized Belinda need fear no further annoyance. Secure in that belief, he returned to work on the tracks while the goat, after a few tentative starts, scrambled up the bank to forage again in the brush. But Dundee was wrong. Before a half hour had passed a plaintive bleat from Belinda drew his attention to the two dogs coming toward him along the track. Derry was swaggering, boastfully exultant at having eluded his master's watchful eye; Mac, outwardly grave, pretended a vast innocence of purpose. But both dogs knew quite well that it was Belinda's mildly mocking eye and her provocative bleat which had drawn them down the tracks from the dull monotony of the settlement. Dundee knew it, too.

"Beat it—ya imps of sin!" he shouted.

SIDE by side, Mac and Derry stopped between the rails and eyed him with cool amusement from a distance of fifty yards. Then, through one half-shut, leering eye the Airedale told the section worker that as a funny man he was a dismal failure and the sooner he minded his own business the sooner a certain terrier and his heavyweight partner would be pleased. And from behind the screen of brush above them Belinda sent them a signal—plaintive, high-pitched, exasperating in its blandness.

"You're the worst, you black an' tan devil!" Dundee yelled to Derry. "Allus huntin' something. Clear outa here."

Derry glared to ask what in blazes Dundee knew of hunting. But, because of the shovel that the man was brandishing, he thought it best to come no nearer. Mac, however, advanced and at a safe distance circled the section man with the air of a dignified judge who had stepped down from the bench to examine "Exhibit A." By the hauteur he displayed as he turned away he did not seem much impressed by the evidence.

"Beat it," the section man yelled, and Mac paused in his slow stride to look back over his shoulder and regard him with as much severity as if he had been guilty of contempt of court. But Derry was more violent in his show of disapproval. He pranced closer and discharged a bark which sounded like an impudent "Blah!" Then he looked toward Mac to ask what he thought of a person who tried to shoo man-sized dogs as if they were so many chickens. It was at that moment that the bushes at the top of the bank were thrust aside and

a white, camel-like face looked down and waggled two taunting horns at the excited dogs.

So great was the delight of both dogs at what they saw and heard that for an instant they forgot the man. But they were not allowed to forget him for long. Jamming his old brown derby well over his ears, Dundee charged them. Mac and Derry bounded clear as they heard Belinda bleat again. To both of them there was a sly invitation in the sound. Later they could think of accepting that invitation. Just now they could have a better time with Dundee. Boy, wasn't he coming! This was going to be a regular rough and tumble.

Mac and Derry crouched. With paws spread and chins in the dry grass of the right-of-way, they entreated Dundee to have another try. But he was thoroughly angry at them now. He was swinging the shovel with a vigor that would have been deadly had it not lacked control. Apparently he was in earnest about this! Very well, if he couldn't take a joke they'd go away and leave him flat, the sorehead! Looking backward cautiously, they ran a quarter mile up the tracks, saw the chase had been abandoned, and swerving sought the cool shade of a stunted cedar.

With wrinkled brow and lolling tongue, Derry asked his partner what *he* thought of a crusty person who chased respectable dog laddies off the right-of-way. Mac, gazing steadily toward the cut, hinted that he had half a notion to go back and give the humorless blighter something to think about.

Then, recalling that droll face he had seen on the high bank above Dundee, he sat down and gave the terrier a long and questioning look. Derry didn't seem to understand. With the air of a tolerant parent trying to instruct his stupid boy, Mac got up, looking over his shoulder loftily to advise the terrier to trail along and pay attention. Ten minutes later, after cautious circling, they came to a small clearing near the cut and stood face to face with Belinda. Derry sat down suddenly, grinning so that his eyes were narrowed to mere slits in his tan-colored, impish face. Had Ed been there he would have expected something unexpected.

Belinda, except for a trace of Nubian and Toggenberg, was almost a pure bred goat. She had as fine a pair of general, all-round utility horns as ever graced any old monarch of the crags along the Twin Forks range. She also had a sense of quiet humor. So, when she saw her two persistent acquaintances craftily approaching, she pretended not to notice them until they were ten feet from her. Then she lowered her efficient horns, waggled her long head, and gave them the look of a philosopher—the sort of philosopher who is by no means averse to sharing in any sly joke which may be going the rounds.

MAC stood and grinned at her. He could wait for her to make the first move. But Derry, who couldn't, pranced within two yards of her, flirted his tail until his haunches quivered, and then spoke softly.

"Sound your 'G'," he barked.

"Na-a-a-ah!" Belinda complied in a falsetto so plaintive that Derry sprang back in mock alarm. Then, turning to Mac, he invited him to contribute a note on the bass saxophone. But the big dog, thinking of Dundee, declined to betray himself by contributing to the overture. So Derry pranced, and waited to see if Belinda could furnish any other good show stuff.

Belinda ran out her long tongue, wrapped it lovingly around a twig of salmonberry, and engulfed the greenery with neatness and dispatch. As she ruminated she watched the big dog, her eyes a little sad, a little droll. To a human she would have resembled the comedian in a "Way Down East" burlesque; to Mac she looked like a creature that needed stirring up. But when he feigned at her she merely lowered her spikes and invited him to help himself to trouble.

Derry and Mac, from hunting much together, had learned the value of teamwork. So, while Mac held the nanny's attention, Derry launched a sham counter attack which sent her scrambling to the flat top of the nearest stump. There, with all feet neatly bunched, she looked down her narrow nose and gave a soft bleat of derision. If she had chanted, "I'm the king of the castle and you're the dirty rascals," in their own language, she could not have made them more determined to oust her. That long-nosed cartoon of an animal shouldn't laugh at them.

BUT when Mac tried to scale the stump's crumbling edge the defender wheeled leisurely into position to prod him back if he climbed too high. She was quite prepared for it, in her thoughtful way. Meanwhile, Derry rushed round and round the stump after the manner of the attackers who once overcame the city of Jericho. The results were negligible, but Derry's hopes kept him enthusiastic. And at the height of his enthusiasm he barked. He barked loudly, challengingly, and two minutes later Dundee, almost purple with anger at the persistence of the dogs he thought were tormenting Belinda, scaled the top of the bank and came running across the cleared land to rescue her.

As soon as he barked, Derry realized he had made an error in strategy. But he knew the direction from which their foe must come, and his watchful eye discovered Dundee while he was still some distance from them. One grunting yap warned Mac; the dogs looked at one another, then at the goat, and began discreetly to withdraw. The spoil-sport was after them again.

When she saw the dogs edging away Belinda did a surprising thing. Bracing her forefeet, she slithered down the steep side of the stump, bleating for them not to depart so hurriedly and spoil the fun. Then she began to follow them with short, mincing steps, her scrawny neck held high above the bushes. Delighted with this unexpected move, the dogs slowed down, waited for her. Then, like two dutiful though amused attendants, they trotted at her flanks, guiding her farther from the safety of the tracks—and nearer to the gloom of the river woods at the bottom of the long slope.

To Dundee, fighting his way through the dense bush, stumbling over rotted logs, this seemed like the final dastardly move of two would-be murderers.

"The schemin' hounds uv Hades!" he panted. He bellowed for them to stop. At the sound Belinda, far from appearing concerned, veered skittishly and kicked up her heels with an abandon scandalous in a creature of her age.

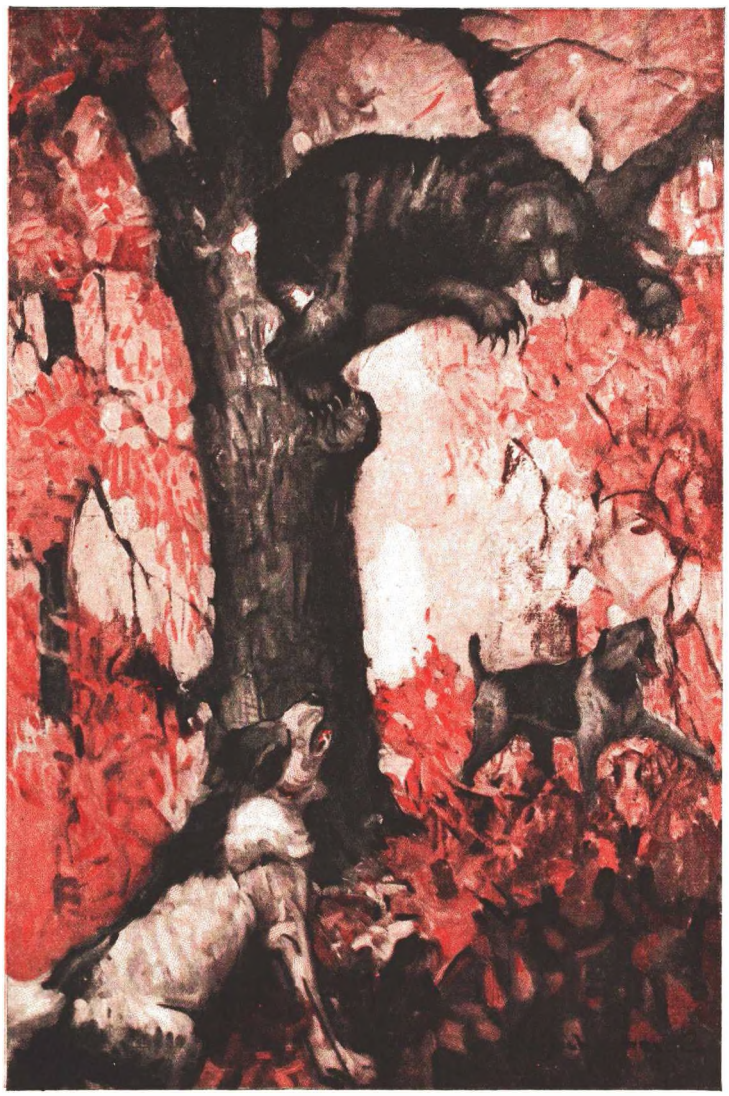
Mac and Derry answered with outbursts of delight. This was better than they had hoped for. Let the old killjoy worry! They even paused on the crest of the last knoll to look back toward the outdistanced man and bark their jubilation, and to the clamor Belinda added her thin, flute-like note. She was enjoying herself more than she had in weeks. When the trio passed inside the fringe of woods, Belinda's anxious master was far behind, the luscious green stuff ahead lured her on, and in demure defiance of all man-imposed rules she tossed her head and attempted to gambol like a lamb. Her canine companions yipped in approval once more.

Derry, impressed by Belinda's efficient method of grasping forage with her tongue, tried it on a grass blade. He almost choked, coughed croupily and gave signs of becoming unwell—most unwell. But soon a sneeze brought relief and he barked gaily to announce the fact. Belinda seemed pleased and both dogs barked hilariously.

TO Dundee, a quarter mile away, there seemed a note of fiendish triumph in the sound. Now, surely, they would drag her down and slay her there in the shadowy woods. This thought spurred the section man to desperation. The fear of bears, which always made him timid of entering such a place as this, was forgotten in his mad determination to defeat the foul purpose of young Sibley's hunting dogs. He plunged toward the edge of the woods. The dogs were silent now but a jay, squawking in the boughs above them, betrayed their whereabouts to him.

That jay annoyed Derry. He bounded a foot into the air and came down stiff-legged. Then, by cocking his head at a perky angle, he suggested to Belinda that her new playmate was an immensely discerning young fellow. "Yah!" he yapped to the jay. "I've spotted you. Look out!"

(*Continued on page 42*)



Mac and Derry raised a wild, angry clamor, as if the bear's ruse had cheated them of their prey.

The Mix-Up With Nuisance

By George F. Pierrot

Illustrated by R. M. Brinkerhoff

WHEN I wandered into Seldom Inn that winter afternoon I found the boys knee-deep in an indignation meeting.

"Let *me* talk awhile," sputtered my usually genial friend Red Barrett. His red hair bristled wrathfully, and his freckles seemed about to pop from his flushed face.

"Last night I took Ann Satterthwaite to a movie."

Loud cheers from the thickly populated davenport, which Red rewarded with a scathing look of Grade A contempt.

"Last night I took Ann Satterthwaite to the movie," Red repeated, in a louder tone of voice, "and the theater was jammed. There were just two seats left, downstairs, and we got those.

"Then Nuisance Curtis arrived. He'd brought a girl, too. He looked around, and saw there was no place for them downstairs. Then his eye lit on me, with Ann. And he—he—"

Red's voice got all choked up with wrath. Suppressed snickers from the davenport.

"He called at the manager's office," Red went on, as his powers of speech returned to him. "As soon as the reel ended this notice was flashed on the screen: 'Will Mr. Barrett and Miss Satterthwaite please call immediately at the manager's office?'"

"Yes! Yes! Proceed." This from the davenport, which was sitting up straight, and hugely interested.

"We got right up and went to the manager's office. He handed me a note."

Again rage conquered Red's voice, and his face blazed like a setting sun.

"The note," he presently went on, his voice shaking, "read like this: 'Thanks for the seats, old man.' Just that. And when I rushed back to the main aisle there were Nuisance and his girl, sitting in our places."

The living room trembled with the howls of the four boys on the davenport, who had collapsed completely and were pummeling each other and shouting with joy. I exploded myself, and so also, from his highly polished perch on top of the grand piano, did my tall blond friend, Rusty Nayle.

"And what didst thou then, Redlet?" asked Rusty when he had managed to get the laughs out of his asker.

"What *could* I do? That's the insidious thing about it."

"He means halitosis." This from the unfeeling davenport.

Red ignored the remark, and continued:

"What I wanted to do was ditch Ann, lie in wait for Nuisance behind a fire hydrant or something, and tear out his liver with my bare hands. But I couldn't do that."

"Of course you couldn't. Nuisance needs his liver." It was again the davenport, which still vibrated with merriment.

"So I took Ann home (Red was beginning to grin himself, now), but when I get my chance I'm going to make that boy feel like a paralyzed man with the St. Vitus dance."

THERE was a stir on the piano, and Rusty's long body straightened. A baleful gleam came into his blue eyes.

"I don't feel like pinning any gold medals on Nuisance, myself," he began.

"I cut Monday's Mediaeval History class, so when I came to quiz this morning I borrowed Nuisance's notes, to sort of brush up on the lecture I'd missed. Nuisance must have been woolgathering when he took those notes, because he was all foul ball on the causes of the Wars of the Roses."

"Fancy that," murmured the davenport, in sorrow.

Rusty's voice was beginning to wobble angrily, and I resolved to find out why.

"Don't blame poor Nuisance," I put in charitably. "No doubt it was an honest mistake."

"Honest mistake!" Rusty snorted. "Honest mistake! Maybe it was. But in the meantime he had done some studying, and set himself right. And when the class started, and Old Spectacles called on me for the causes of the Wars of the Roses, and I told 'em all twisted, who was it that corrected me in a loud clear voice? Who was it, I ask you?"

"Nuisance Curtis!" chorused the davenport, and once more the room rocked with merriment.

"It's high time," Red Barrett stated grimly, "for us to revive the S. N. A. S.—Sheriton Nuisance Abating Society."

"Count me in," Rusty spoke up.

"And I," I said, feelingly. There was that time when Nuisance—but what's the use of inflicting my personal troubles on you?

"Abate him right away, will you?" I recognized the drawl. It belonged to "Buzz" Fairfield, varsity basketball forward. "He's turning out for varsity basketball manager, and Earl Campbell, the graduate manager, tells me he's got a tiny edge on the other candidates. Our schedule is tough enough, without adding Nuisance to our burdens."

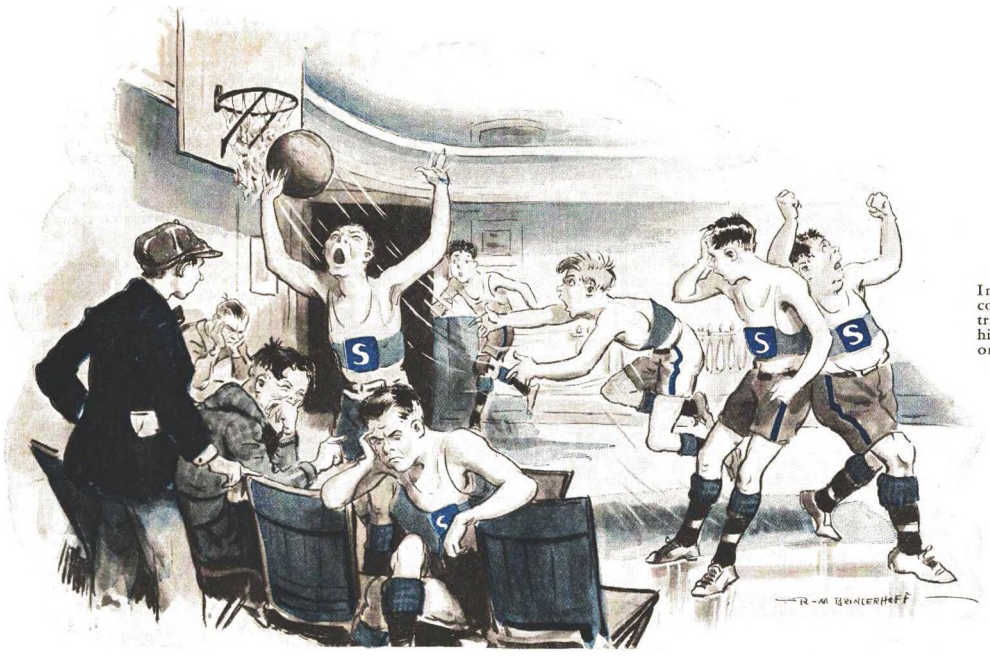
"We'll do that," Red declared, and to assist him in every way Rusty and I promptly pledged our lives, our property and our sacred honor.

The second crusade against Nuisance Curtis had come into being.

IF Nuisance had been a pup I'm sure his owners would have drowned him. For he could stir up more mischief in ten minutes than a whole jungle full of baby chimpanzees. Tall and skinny he was, with a thin eager face that when planning a stunt—and only while asleep did Nuisance ever *stop* planning a stunt—was always cocked sideways, like a police dog's. He had such a boyish, innocent enthusiasm in the way he approached you that you'd cheerfully hand him all your money and your watch. Five minutes later your money would be spent and your watch disabled for life. Always meaning well, Nuisance. No doubt the cow that burned down Chicago meant well, too.

But you have to step fast to keep up with that boy. Even as we sat there in my room, wondering whether to put a rattlesnake in Nuisance's trousers, or maybe

Porky came bursting in, bellowing like a walrus with a sore tusk. "Wake up, Flip!" he howled.



In sixteen consecutive tries Rusty hit the hoop only once.

to just cook him a while in hot oil, the telephone rang in the hall. Red answered it.

"Spike Atwell, yes," we heard him say. "Sure, we can come right down."

A summons from the varsity basketball coach is not to be taken lightly, even though as a basketball player any one of us is a good mule skinner, so ten minutes later we were sitting respectfully in front of Spike's desk in the gym. He looked at us gravely and silently for a moment, as is his way, and then began:

"I want you three boys, and a couple more good men and true, and some substitutes, to drive to Wenatchee."

"Yes," we assented, enthusiastically. It sounded like a good trip. Then down went our hopes.

"I want you to play a Wenatchee basketball team."

"But, Coach," I objected, "I couldn't hit the backboard one time in ten with a bean bag, let alone a basketball."

Atwell grinned. "You belong on the varsity," he murmured. "You seem to have the same qualifications as the rest of the squad.

"But seriously, all three of you played basketball in high school. Don't deny it—I know. You're out of practice, of course, but so is the Wenatchee bunch. They'll be just a pick-up team."

"What's the idea, Coach?" Rusty protested. "Aren't there better ways of ruining Sheriton's reputation than letting us do it?"

"You won't ruin Sheriton's reputation. You'll meet in a little exhibition match, a team that has probably never played together before. The Chamber of Commerce at Wenatchee is arranging the game. You'll win. Easily, but not so easily as to spoil the game for the home people. Then you'll hobnob with everybody, sell your bright and shining personalities to the high school boys who will be watching you, and maybe we'll get a better break, next year, with some of Wenatchee's promising athletes. As it is, nine-tenths of 'em go to Ashford."

There was a set look in the coach's face that proved to us he had made up his mind. Sadly we rose and filed out. We'd go to Wenatchee, of course, and we'd put on basketball suits. But clothes don't make the man, Hart, Schaffner & Marx to the contrary notwithstanding. What would happen after that—well, the Battle of Waterloo would be a glorious victory for Napoleon compared to it.

In the hall outside, impatiently shifting his weight from one foot to another, stood the skinny specter we had pledged ourselves to abate.

"Going to Wenatchee?" Nuisance queried, eagerly.

"Yes," growled Red. "Use your influence with Spike to kill the cock-eyed idea, will you?"

"Cock-eyed nothing," cried Nuisance, proudly. "It's *my* idea. Sold it to the coach. It'll give Sheriton some darned good publicity—"

With a yell that would have done credit to a stricken tiger Rusty sprang at Nuisance.

Like the Light Brigade, that startled gentleman paused not to question why. He launched himself through an open window. Before we could hurl a chair out after him we could hear him crackling through the bushes.

"Tough on the roses."

"He'll probably say he pruned 'em, and send in his bill to the university," Rusty said disgustedly.

The Daily rubbed salt in our wounds when it gilded the expedition with glowing adjectives. "It will mark a new milestone in the cementing of Sheriton's friendly relations with the east side of the state," *The Daily* exulted. "Grover Curtis," it added, "was responsible for the big idea, and will go along as manager."

"Go along as manager," exclaimed Red, excitedly. "We've got him where we want him, boys. We'll get him out of town a ways and then tie him to the track and let a freight train run over him."

"It would probably turn out to be a gold dust train," I said gloomily, "with a hole in the bottom of one of the cars. Nuisance would get up with his pockets full of money."

A LITTLE bird must have told Nuisance that his life wasn't too safe in our hands, for he telephoned us that while we would make the trip in the great old touring car that belonged to the athletic department, he would go on ahead in Mohitable his fifteen-dollar tin lizzie.

"I'll engage your hotel rooms and have everything all fixed for you," he promised, enthusiastically.

"Watch him," Red cautioned darkly. "He'll probably set the hotel on fire."

The rest of our friends were about as enthusiastic over impersonating basketball players as we were. With one accord they turned sympathetic but firmly deaf ears to our entreaties. They hadn't been summoned by Spike, as we were, and they felt no obligation, nor any burning desire to make jackasses of themselves in front of a thousand people.

Finally, however, we begged, borrowed and stole ourselves a quorum. There was Red, who had once played second substitute standing guard on his Sunday School team. There was Rusty, whose high school coach had used him as the horrible example of everything a basketball player shouldn't do. There was myself, who had qualified for a letter, by a margin of about a fifth of a second's play, on the worst team that Cochise High had ever had. Why, if I remember rightly the senior girls' team had walloped us!

In addition to these three world beaters, we enlisted the portly services of "Porky" Rhinebottom, who was constructed along the general architectural lines of a Standard Oil tank and who could move just about as fast. Our fifth man was Dook Stanberg, who couldn't shoot the side of the Woolworth Building, let alone a basket. And then we found a couple of substitutes who protested they didn't know a basketball from a Hubbard squash.

But you can't keep a good man down, as Jonah said to the whale. After all, Spike had told us that Wenatchee bunch would be greenhorns, too. Said they'd never played together. So we got actually cheerful, after we'd arranged to borrow some cast-off varsity uniforms, and we turned out in the gym for what was to be our first and only practice before we tangled with the East Siders.

Gosh, you should have seen us. We would have destroyed your faith in the human race. First Rusty toed the foul line and let fly at the basket. In sixteen consecutive tries he hit the hoop only once, even though he was straining so hard that he twice fell flat on his face. Red, more ambitious, hitched up his oversize trunks and fired the ball while at full speed. There was a jingle of broken glass as it sailed through a lavatory window.

"Your turn," panted Red.

"Nix," I said. "After watching you birds I see I don't need any practice. There's one thing in our favor, anyhow. We won't need a score keeper."

WE tried to look at the bright side of the situation, as our comfortable big touring car ate up the miles toward Wenatchee. But as the road streamed behind us, and each moment brought us closer to the thriving metropolis of the apple belt, that bright side began to tarnish. Finally we decided to say no more about basketball, and after that we grew cheerful again.

We stopped at a gas station outside of Wenatchee.

"Going to the game to-night?" the gas man inquired.

"Looks that way," Rusty answered. "Will it be a good one?"

"Ought to be. Sheriton is sending down a bunch of all-stars, but they're going to find the road long and rocky." He chuckled.

"Bunch of all-stars," groaned Porky as we rolled away. "My gosh, fellows, he means me."

"And me," lamented Red. "Me, the seventh son of a seventh son of a long line of butter-fingered ancestors. Why, we Barretts have never soiled our hands with athletics. We bloom in the grandstand."

"You'll bloom in a hearse, if you don't shut up," I growled. "Think of me, at guard, never getting near enough my man to even recognize him. Gosh, but the home folks'll be proud of me, after to-night."

As we swept into Wenatchee we saw a great orange placard, with the word "Basketball" fairly screaming from its top.

"Sheriton Varsity vs. Ashford Varsity," it went on to say.

"Oh, my grandmother's liver," moaned Porky. "They call us the Sheriton varsity."

"Pretty impression we'll make, if the Wenatcheeites think we're the best that Sheriton's got."

But that wasn't what was bothering me.

"Do you suppose we're really going to tackle the Ashford varsity?" I demanded.

"Of course not, dumb bell." This from Red. "If it isn't a town team it'll be a bunch of false alarms—old and infirm and blind—and the score at the end of the first half will be 0 to 0. That is, unless we both lose ground."

Nevertheless, as soon as we registered at the hotel we looked around for Nuisance. He wasn't in his room, so we scattered, agreeing to meet at 4 o'clock.

Driving in the open air always makes me sleepy, and

so when the others went out I curled up on a bed and started to snooze.

Started was right, for it wasn't fifteen minutes before Porky came bursting in, bellowing like a walrus with a sore tusk. "Wake up, Flip," he howled.

"It's easy to believe that story about the walls of Jericho," I said in exasperation, "when that foghorn of yours goes into action."

And then, as I saw that Porky's eyes were fairly bursting from their flesh upholstered sockets: "What's the matter? You look as though somebody'd put lumps in your mashed potatoes."

"Mashed potatoes, that's it," cried Porky. "That's what we'll look like when this evening's over."

"You're certainly an optimist," I said. "You ought to get a job as hostess in a graveyard."

"It's the real Ashford varsity," Porky shouted. I sat bolt upright.

"You're cock-eyed, Porky Rhinebottom."

"I wish I were," Porky answered, sadly, as he collapsed into a chair. "Unfortunately, however, I'm not. I strolled down to the hall where we're to play and peeked in a window. There was the whole Ashford varsity practicing—Devlin, and Knudson, and Brill—"

"Say no more," I groaned.

Devlin, all-conference center! Knudson, conference high scorer for the previous season! Brill!

The score would look like the European war debt, and we'd be on the wrong end of it.

"Get Nuisance on the phone," I exclaimed, savagely. "Or wait, I'll talk to the miserable hyena myself."

I jerked off the receiver, and asked for Nuisance's room.

"Do you mean Mr. Curtis?" came the sweet voice of the hotel's central.

"I certainly do," I assured her, grimly.

"He won't be back at the hotel before the game. He left word to refer all calls to the hall."

FIVE minutes later I had the hall, and Curtis. He was all distress and apology.

"I never said the Sheriton varsity was coming," he protested.

"Sure of that?"

"Well, yes—yes, of course. I—ah—intimated that several members of the varsity squad, which—ah—isn't saying varsity letter men, Flip, is it? I just—"

"See here!" I interrupted. "Do you know that the whole Ashford squad is down here?"

Through the telephone I could hear Nuisance squirm.

"Well, yes. That is, are they really?"

I slammed the receiver down.

By that time Rusty and Red were back, and Attila the Hun never got a worse tongue lashing than the four of us handed to our absent promoter of varsity basketball matches.

"Publicity!" snorted Rusty. "A fine lot of publicity Sheriton'll get, when Ashford beats us 476 to 0."

"Do you think we can hold 'em to that?" Red inquired.

"Can't we practice?" asked Dook hopefully. All of us shriveled him with our eyes.

"Practice! In an hour?"

"We've got to find a way out," Porky announced, after deep thought.

"Oh, indeed!" There was double-edged sarcasm in Rusty's voice. "You make it very simple."

"Look here," said Red. "I've an idea."

A drowning camel will clutch at a straw—or is it that a drowning man will clutch at a camel? I don't know my mythology very well. Anyhow, we drew up our chairs and listened earnestly.

As Red swiftly sketched his plan his voice grew eager and loud. And gradually we began to settle back in our chairs, and relax. The frowns left our faces—even the tragic Porky forgot himself enough to grin.

"It might work," Rusty said, doubtfully.

"It's got to work," I declared. "Let's scatter, and search the town."

"That's the ticket," Red encouraged. "We'd better grab a very light dinner—we can't play even our kind of a game on an empty stomach."

"Amen," murmured Porky, lovingly patting his rotund one.

"The game starts at 7:30. We'll meet at the hall at 7. It's up to every man to do some tall skirmishing in the meantime. If anybody runs across Nuisance Curtis, wring his neck. Give him no quarter."

We agreed on that with a deep throated "yea" and then scattered in all directions.

On the streets I heard nothing but basketball. The whole town seemed delighted at the unexpected chance to see the two big varsity teams in action.

One town oracle, holding forth on a street corner, gave it as his solemn opinion that Sheriton would get beat. If he only knew!

"Sheriton isn't the only one that'll get beat," I remarked to myself. "Nuisance Curtis is going to look like a barber pole when *we* get through with him."

I managed to find, in a by-street, what looked like a rummage sale. The proprietor, when I told him what I wanted, wagged his head at me as though I was a dangerous lunatic. However, to my great relief he began pawing through his stock, and finally fished out just what I needed.

With my loot wrapped in a newspaper I dug for the hall. I found it, three-quarters of an hour before the game, already ablaze with lights, and pulsating with sound. From the sharp spank of leather against floor I judged the Ashford squad was already warming up.

WE were a scared, breathless bunch as we gathered in our quarters. We were in a tough old situation, and one that seemed to justify desperate measures, but were these the particular sort of measures that would work best? How could we tell, until we got out on that floor? And then if we were wrong, it would be too late. But like the family dentist, we'd destroyed our bridges behind us. There was no turning back.

The referee poked his head through the door.

"How soon do you want the floor for practice?"

"We don't want it," spoke up Red. "We don't need any practice."

The referee, a queer look in his face, withdrew. And then, with the din outside growing in volume and excitement, we began changing our clothes.

At the stroke of 7:30 we rushed out. An amazed gasp ran through the hall, and then a roar of laughter. And no wonder.

Red Barrett, our captain, wore a girl's colonial costume, with a wigwam-like skirt and pantalettes peeping demurely from beneath. He carried a fan.

Porky Rhinebottom was upholstered in a too-small bagpiper's costume. Where he got it I don't know, but it clung to his rounded figure like a wet bathing suit, except in places where the moths had been and gone.

Rusty Nayle was a street cleaner—I a Red Cross nurse. Dook Stanberg was most anything—he wore golf hose and knickers, rubber knee boots, a vest over his B. V. D.'s and a derby.

We grabbed the ball and lined up like a football team, with me at center and Red as quarter. I upended and shot the ball between my legs. If you think that's easy to do, with skirts on, try it. Red caught the ball, forward passed to Rusty at right end, and down the floor we went. By the time we'd gone the length of the court a couple of times the crowd was all doubled up with laughter.

That leggy Ashford gang, spick and span in their trim green and white uniforms, just stood around open-mouthed.

I caught sight of Nuisance, sitting grandly at the center side lines with a gentleman who turned out to be Wenatchee's mayor, and pointed him out to Red. On our next play Red forward passed again to Rusty. The ball, surprisingly, overshot its mark. It flew straight at Nuisance, and before he could bat it back Rusty had dived viciously into his stomach, knocking him galley-west. Again the crowd whooped.

He Craved
A BEAVER HOUND
He Got
A BASSET HOUND
A BLOODHOUND
A WOLFHOUND
A FOXHOUND
and
A POODLE!

The Milford basketball team looked pretty doggy, too!

HOT DOGS!

A grin-growing yarn by Mitchell V. Charnley

Next Month

"That's just the first installment," Rusty managed to whisper in Nuisance's ear, "of what's coming to you after the game."

Pretty soon the referee's whistle shrilled. We lined up. We had placed Porky at center, because he's so short that he wouldn't get his hands on the ball once in fifteen leap years.

Up went the ball. Porky leaped frantically for it, but Brill of Ashford got it with a good thirty inches to spare. He pushed it to Devlin, who dribbled straight at Rusty. Rusty dived at him, managed to trip over his own toe, and fell with a crash that shook the building. It was my cue, as a Red Cross nurse, to rush to Rusty's aid. I did so, and tenderly gave him a drink of milk from a baby's bottle that I was carrying, nipple and all, in my hip pocket.

MEANWHILE Devlin drove on toward our basket. Red Barrett, fan in hand, hippety-hopped to stop him, but he shot the goal. At this Red pulled out a large red handkerchief and burst into sobs that would have done credit to a Mississippi steamboat.

You should have seen that crowd. Strong men weeping. Ladies fainting with joy. The town policeman on his hands and knees, purple and gasping. It was a riot.

By this time Ashford had caught on, and entered into the spirit of the thing. When the ball went up Brill courteously stood there with his hands at his sides. To his immense amazement Porky found himself in possession of it. It was an emergency he was totally unprepared to meet. He stood there with his mouth open, the ball clutched tightly in his pudgy hands.

The crowd simply howled.

Porky settled his problem by looping the ball squarely into the hands of Knudson, Ashford guard. And Knudson, with a courtly bow, handed it right back to him. Porky thanked him with elaborate politeness, trotted down the court, and let fly at the Ashford basket. The toss cleared the backboard by a good four feet and landed in the lap of a Presbyterian minister. The indomitable Porky waddled after it, faithful unto death. His second attempt was more successful, and the score was tied at 2-all.

After that we vied with each other in playing horse. The period ended—we had got the referee to cut the halves to eight minutes, so our stunt wouldn't get tiresome—with the score 5 to 5.

The second part of that game was even more of a riot. We scored first, when Red got the ball and passed it to Rusty, who had climbed up on the scaffolding behind the backboard, so he could lean out over the basket and drop it straight down through.

Brill of Ashford countered by beckoning to a telegraph messenger who was sitting near the side lines and sending him up through the balcony to our basket, where he repeated Rusty's stunt, amid the frenzied cheers of the Ashford team.

In the middle of the half we called for time and one of our subs trundled a tea wagon out on the court, and served us pink lemonade and lady fingers.

When the game ended, 9 to 9, the crowd burst into prolonged cheering. Then they rushed out on the floor and mobbed us. They hammered our backs until I swear I could have buttoned my vest on my vertebrae. They told us, amid chokes and gasps of laughter, that we were funnier than a whole regiment of clowns, that we'd given them the banner evening of their lives.

"We thought you'd enjoy this more than regular basketball," Rusty told a particularly enthusiastic gentleman in chin whiskers.

The sight that changed my feelings of extreme relief to seathing wrath, was that of our friend Nuisance, bowing and smirking like a tomcat with cream on his whiskers, and taking bows and congratulations just like John Philip Sousa.

The townspeople urged an informal shindig in our honor at the hotel, but we declined. We had other work to do. The complete annihilation of Nuisance Curtis was much too pleasant a job to be rushed. Presently the seven of us, our fingers opening and closing with eagerness to have at our betrayer, were hotfooting it up the street to the hotel.

IN our room, pinned conspicuously to our pillow, was a note in a slanting scrawl that we already knew too well.

"Dear boys," Rusty read aloud. "You did yourselves proud. Sheriton couldn't possibly have earned so much goodwill in any other way. You proved the soundness of my idea."

"Pretty soon we'll be proving the soundness of your anatomy," growled Rusty. "Go on."

"I know that right after the game you'll be thinking unkind thoughts about me."

"How could he possibly have got that idea?" asked Dook, sarcastically.

"So by the time you read this," Rusty continued, "I'll be on my way to Sheriton."

"Stop him," yelled Porky, rushing to the door.

But Rusty was still reading.

"In order to keep you from so far forgetting yourselves as to catch me and make a scene and destroy all my good work, I've taken your touring car. You'll find Mehitable standing outside. Just fill her up with gas, push her a few dozen (*Continued on page 43*)

Stunt 'Er, Jimmie!

By Frederic Nelson Litten

Illustrated by Ernest Fuhr

LIEUTENANT CARTER MORGAN, chief test pilot in the Air Corps Flying School at Brooks Field, was by no means a ray of golden sunshine in cadet life there. He was a grim-lipped, hawk-nosed flyer with deep burning eyes and high cheek bones; silent and laconic until a student stirred his ire. Then his vocabulary became astounding. The cadets called him—when he was not present—"Nick."

He stood leaning against the wing of the check ship, 400, looking somberly at the cadet before him, one Jimmie Rhodes, once an honor man at Virginia Military Institute, now a lieutenant of cadets with his first fifty hours of flying done, and waiting for a "check."

Jimmie's hand was at his helmet in salute.

"Cadet Rhodes, sir," he said, "reporting for final progress check."

The lieutenant lifted his 'chute pack from the wing, and spoke coldly over Jimmie's head as though addressing some invisible being out there on the flying field before him.

"—warning! Too many unsafe students. Hereafter—must show correct air work—won't pass otherwise."

This said, he finished fastening the harness of his 'chute, but still his eyes avoided Jimmie's face. He turned, set foot on the forward cockpit step, and snapped out:

"Eights around pylons, first!"

Rhodes again saluted stiffly. He climbed in the rear seat, settled the 'chute pack under him and, jamming his goggles down, worked the engine throttle for a burst or two to clear her. A little disconcerting, this first order. "Eights" meant putting the ship through smooth, accurate figure eights—a nice tough maneuver to start off with. No chance to warm up on some elementary flying. That was Nick's stuff. Lieutenant Morgan was hard! He was the picnic egg that somebody forgot.

Jimmie recalled the story, current when he'd left home, that it was this same Morgan who had written to the faculty at Virginia Military Institute and given a bad "rep" to McHarg of the class of '24. McHarg was the cadet from Jimmie's own school who had washed out on pursuit work at Kelly Field in the last month of his cadet career. Maybe this lieutenant had a grudge against V.M.I. men. Maybe—but Morgan was looking around impatiently. With a quick glance at his instruments, Jimmie waved the ground crew to pull the chocks and taxied out into the field.

He pushed the throttle steadily along the quadrant and the P. T. roared across the field. Then, suddenly, the slight bumping of the undercarriage ceased and they were off the ground.

JIMMIE held her straight, nosing up with care until the altimeter needle began to function—about three hundred feet—then put on a stiff right bank to start a climbing turn. The helmet in the seat ahead shook violently and he cased off on the controls. The lieutenant scribbled on a pad and thrust a scrap of paper through the fuselage toward Jimmie's free hand.

"Want to kill me?" it read. "Stop contour chasing."

Jimmie crumpled up the paper and resumed a steady climb. At four hundred feet he looked about him for his "points." Any two points on the ground—officers called them pylons—about a thousand feet apart, would do. His job was to bank around each one in turn, holding his wing tip accurately pointed to the pylon for a complete 360 degrees. At the end of one circle he had to head into the wind on a tangent and begin the alternating circle to complete his figure eight. Simple! Duck soup, until you tried it, and then, somehow, the circles were all egg-shaped and you came out from the first pylon heading north instead of east.

But Jimmie had been through it all. He located a windmill—the best of pylons—and across wind in another field, a farmer's tool house. Motioning with a down thrust of his hand outside the cockpit, he banked the P. T. round the windmill, sighting through two tension wires along the wings upon the vanes of the windmill wheel as though the wing tip were made fast to it.

"Not so rotten, Nick. Six months ago I didn't know a note," he murmured, "but now, in sixty lessons, I play any tune you want in six keys."

Jimmie brought the ship level just below that human pendulum and shouted: "Jump!"

This joyous boast sent his blood racing, and he put the ship through vertical reversements—three in number—zoomed up in a whipstall, and started rocking lazy eights against the sky line. That was enough for the test pilot. He cut the gun and, pointing down, called for a "power-off" spiral to a landing. Jimmie grimaced.

"Confound it! I believe I had him going white around the gills."

Over the side, the terrain was like a toyshop village. Tiny houses, blue-black mesquite, fields that were neat squares and rectangles of green and brown, white roads along which cars crawled like slow, black beetles. He banked into a steep spiral. The P. T. corkscrewed steadily on down, altimeter jerking back a hundred feet or so for each full turn.

At two thousand feet he felt the throttle ball under his left palm quiver. The lieutenant's hand was on the dual control. He looked up quickly and a queer chill rippled down his spine. The prop had stopped rotating and was hanging dead, rocking back and forth in the cross air currents. Over unknown old fruit," he muttered jubilantly at the impassive leather helmet in the forward cockpit, and came out, inwind, for the tool house. Reaching it, again he put down the controls and pivoted through the circle.

Lieutenant Morgan shook the stick and raised one hand to the vertical.

"Not steep enough?" Jimmy exclaimed as he interpreted the gesture. "My gosh! Plug up the water-jacket overflow and I'll fly it upside down!"

But even as he growled, Jimmie pushed the throttle forward to gain speed for a "vertical," the hardest of all banks, for in this the wing is vertical to the ground, the controls change function, and rudder becomes aileron. He headed for the windmill, and made a perfect turn almost directly over it, but back at the tool house his rudder was too light and the P. T. slipped on the turn. It was only a split second, though, before Jimmie had her on her course, and he flicked a quick glance at Morgan. Had he caught the error?

The lieutenant's profile was turned toward him, and with thumb and finger of one hand, the officer held his beak-like nose. The other hand was violently fanning air before his face.

"Stinking, was I?" ground out Jimmie savagely. "Oh yes, but now you'd better dig your spurs in, Nick—I'm gonna *ride*."

He drove on round the pylons, his square jaw set doggedly, and made three perfect patterns before the stick, shaken violently, apprised him that this section of the check was done. The lieutenant's hand now pointed upward.

"Acrobatics—yea bo!" Jimmie smiled evilly. "I wish I could tell you, Nick, how earnestly I crave you'll snap your cookies."

HE climbed to four thousand feet. Here Lieutenant Morgan made a circle with his hand that meant a loop. Instantly the ship shot into a dive, and as the air speed reached 120 Jimmie pulled the stick back smoothly and flew her through the loop. Then half rolls—he did two and came out horizontal-level, losing barely fifty feet.

terrain a dead motor may spell disaster. Well, he had altitude enough to dive and start her turning.

Lieutenant Morgan turned his head and stared round at Jimmie. His face, with those convex goggles and that beaked nose, seemed predatory, like a strange prehistoric bird. He deliberately placed both hands in sight upon the cowling. It was a gage of battle, that slow gesture, and Jimmie's heart pumped furiously. The lieutenant had put it squarely up to him.

"Keep 'em there," he shouted out, forgetting that with the motor dead his voice might carry to the other. "And your dogs off the pedals, too. I'll spin that prop, if your tummy'll stand it."

To his chagrin, the helmet nodded, but even while the thought that Morgan had heard every word was registering, his feet had kicked the rudder straight, his right hand had slammed the stick down, and he had hurled the P. T. into a dive.

Downward she bored, the air stream drawing notes from her taut wires that grew shriller and wilder—tortured sounds that pierced the sky. The air speed needle, quivering, crawled to 100—jumped ten, hovered, touched 120. Almost two hundred feet each second she was falling.

Jimmie, watching the prop flick over to compression and buck back, refusing yet to yield to the air pressure and begin to turn, saw past the ship's nose the terrain enlarging—objects jumping out of focus. His glance touched the altimeter—1000 feet. He'd hold her in the dive down to 500, if the wings would stay together.

SUDDENLY the prop flipped over. He shot the throttle arm through full quadrant. In a burst of black, ragged smoke that tore flatly from her stacks, the motor caught. The air speed meter flicked to 140, but still Jimmie held the stick down. The P. T. was flashing earthward like a falling star. He saw Lieutenant Morgan's helmet turn, felt the stick quiver.

"He shan't take it!" he hissed, but in that instant the stick twitched from his hand. He felt his body plastered suddenly against the steel back of the seat as the P. T. snapped level from that catapulting plunge. Black

night enveloped him for a moment, at the sudden checking of the dive, and then his head cleared. In that instant an appalling sight met his eyes. That prop! With a queer febrile whine that Jimmie never will forget, the propeller left the engine shaft like a flickering shadow spun far out to the left—and vanished.

At the same instant, something sang like a hornet by his head. Simultaneously, Lieutenant Morgan's hand slipped from the cowling; his body slumped, fell forward, and hung limply on his safety belt.

Instinctively, Jimmie glanced at the terrain beneath. A shudder swept across him. The ship was skimming over broken country—mesquite thickets, rough shelving knolls—skimming so close that with each second's passing he waited for the crash of the landing gear among the tree tops—the whirling, somersaulting plunge to death.

The air speed was dropping fast. Through anguished eyes, the cadet could discern only little patches of cleared ground between the mesquite clumps, perhaps a hundred feet of runway, and then a tangled mass of spiky trees. No chance to land her safely.

The controls were loosening. That meant she had almost lost her forward speed. Suddenly, a thought born of the desperate crisis flashed to Jimmie. But first he must gain air speed. Instantly he acted. As the P. T. passed over the next clump of mesquite, he dove her at the ground and held the nose down until another second meant a crash. At that instant, timed like a hair trigger, the stick shot back and the P. T. zoomed up at the sun. As she cleared the tree tops just ahead, he jammed the stick hard left and quickly kicked right rudder. He felt the air blast strike his cheek and saw the left wing driving toward the sandy clearing. He held her there until the wing tip almost shoveled sand, then snapped stick and rudder neutral. His wheels bumped, the P. T. ran her speed out toward the trees and halted in their scanty shade.

Jimmie flipped his belt free, jumped down, swung himself up on the forward cockpit. The lieutenant's left hand weakly brushed his goggles free. He looked round at the small clearing behind. Then his eyes met Jimmie's. He sat up.

"You'd like to kill off all the officers," he said bitterly, in an unsteady voice; "you wouldn't have to pass a check at all then. How'd you squeeze into this back yard?"

"Side - slipped her in, sir," answered Jimmie.

Lieutenant Morgan heard this in silence. Suddenly he exploded, his voice piercing, shrill:

"You dumb button-brain! Of all fool killing stunts! Who taught you to dive with a full motor? Don't you know that's bad on engines and dangerous to props? Think you're 'Crazy Gilchrist,' do you? Think, like Gilchrist, you have a charmed life! Who taught you to fly at all? Nobody. You can't. You're a groundhog with his brains A.W.O.L. Don't take your helmet off—remember the woodpeckers in these trees! Don't stick your head in the mess kitchen—they're running short of G. I. toothpicks! A flying cadet! My heavens! What I pray for every night is just *one* flyer!"

He beat upon the crash pad in his anguish. His helmet slipped back. A purplish lump swelled above his right eye.

"Beg pardon, sir," said Jimmie doubtfully. The lieutenant's words were certainly not hopeful. The cadet was very eager to change the subject. "You've a bad rap there."

"Yes. Nut from the prop-holding bolt blanked me out. Too bad it didn't strike *your* head—we might have saved the nut."

Jimmie grinned doubtfully again.

"Sorry, sir, about the prop, sir," he hesitated. "I guess that means I've busted on my check?"

"It should mean that and worse," rasped Morgan angrily. "But if I sent you back for more instruction, it'd mean I'd have to ride with you again. I wouldn't do it—not for a D. S. M. You'd try to set her down inside some farmer's silo next." He glanced again around the narrow grove. "Go find a farmhouse and telephone operations to send out another prop, and keep your helmet on when you pass through the mesquite thickets."

THAT night in the upper classmen's "bay," as the long dormitories in cadet barracks were called, Jimmie told it all to a cynical, not too admiring group.

"Imagine my embarrassment," he said, "when I lost off that prop. And what I mean is, landing in between those trees was close—closer'n Grant got to Richmond."

"Oh, it took head work when those bolts let go," said Burrell, the big quiet fellow from Clemson College in the Carolinas. After a moment he added, "Surprising what a 'nut' can do."

Jimmie glanced up at his face, but it was innocent. Walt Atlee, Jimmie's pal, snickered. Jimmie flushed.

"You're all such funny men. Why not let your feet grow and be Charlie Chaplins?" He pulled at his black string tie. "Well, if you'll take your hoofs off my bed, Atlee, and police up the mud on my blanket, I'll occupy it. I get my cross-country to-morrow—to Sequilla."

Atlee—called "Uncle Walt"—stood up. The fair hair high up on his forehead was thin and the forehead was rarely free from wrinkles. This gave his face a preternaturally solemn air somewhat belied by his keen blue eyes. He brushed the blanket off with care.

"Sequilla," he said gravely. "Not Sequilla."

Jimmie looked up in suspicion. Atlee went on:

"No. No foolin', are you going to Sequilla? You have to do a solo cross-country flight to Sequilla?"

"You heard me," said Jimmie, but as Atlee's frown seemed genuine, he asked, "Why? What's wrong with Sequilla?"

"Oh well, you draw side arms on a cross-country," Atlee said shortly, and turned away. His interest had suddenly evaporated. He picked up the evening paper and stretched out on his own cot.

"Hey, Walt, what's wrong with Sequilla?" repeated Jimmie.

There was a long pause, then the paper lowered and Atlee's scant head of hair appeared.

"Well—" he answered. Then, swiftly, as he rolled from sight, "It's the center of the woodpecker belt, that's all."

THE next morning, as Jimmie climbed in the cockpit of the P. T. he glimpsed a baseball mask upon the seat. Curiously he picked it up. A tag fastened to a wire read: "Wear this—they go for the eyes."

Jimmie slammed it to the ground. The crew chief was grinning.

"You tell the wisecracker who did this—" he started, when his foot, reaching forward for the rudder bar, crushed something. He pulled it into sight—a dilapidated bird cage. The tag on it read: "Bring us a red-headed one for mascot."

"I'll bring them a mascot! A rattlesnake, maybe." Then feeling better, he grinned back at the crew chief as he waved the blocks away. As the ship roared out across the airdrome, he muttered:

"Guess I acquired one too many layers of the old ego—but at that *(Continued on page 28)*

With a vicious snarl she sprang high in the air to attack this screaming monster of the skies.

"By the Great Horn Spoon!" he bellowed. "All our work undone!"

The Last Wanigan

By Kent Curtis

Illustrated by Dudley Gloyne Summers

THE whole valley was agog over the exploit at Minneconsin dam. Tod Hand, of the white house on Spring Valley road, and Johnny Headflyer, the halfbreed who lived on Thornapple Fork, had seen it. With Old Man Lacey, story-telling riverman who lived below Eau Claire, they'd seen the entire thrilling event.

They'd been standing on the dam itself—the half-mile concrete wall, just completed, that was to make a lake out of their beloved Chippewa River. The dam that was to make the Porcupine rapids disappear forever, and chase Ed Button out of his home on the knoll where Thornapple Fork met the Chippewa!

The mayor of Chippewa Falls, the sheriff, and a crowd of people had been there, because the occasion had been the official closing of the dam. Just before the ceremony a terrific explosion had spouted water just fifty yards above the spillway, lighting the dark torrent with a yellow glare. And right after the explosion, a wanigan—a two-prowed old-time river boat—had catapulted out of the darkness down the water of the spillway, getting through just before the gate had come down. In the stern of the wanigan had been crouched big Nagel, the trouble-maker, steering for all he was worth.

Earlier that same day, Tod and Johnny had paddled over in Tod's new canoe to Ed Button's farm, the farm that was soon to be submerged. They'd met Nagel there and had heard him talk threateningly about the dam. They'd never suspected, though, that he'd meant to dynamite it! Thank goodness the charge had gone off prematurely—fifty yards *above* the concrete work!

But, now, the neighborhood could talk of nothing else.

Chapter Four

MOTHERS scared small children into meticulous good behavior with the mere mention of dynamite, and Old Man Lacey's feat at Paint Creek rapids in the remote year of '98 paled to insignificance. That the bomb had detonated prematurely, without harming the dam, seemed in a curious way to absolve the dynamiter from crime. Except from the engineers of the dam there was expressed more admiration than indignation; in the eyes of most people Nagel was a hero for taking a wanigan single-handed through the spillway, and the fact that he was still at large furnished endless topics for conjecture.

The exploit had taken place with such suddenness that nobody could be sure whether or not there had been two people in the wanigan. Every eye had been riveted on that straining red-shirted figure at the sweep, the light had been dim, and the speed of the boat as it shot under the descending gates, lightning-like. The giant Nagel alone was the diabolical hero of the achievement, and only Tod Hand and Johnny Headflyer were the *cargadores* of a suspicion that grew daily into dread certainty. Ed Button was gone from his cabin on Thornapple Fork. The bottom step of his cabin porch was not yet floating in the rising lake, but he was gone, Tod and Johnny could only guess whither, and the thought that he was an accomplice in the dynamite plot was intolerable.

Two days after the event Old Man Lacey drove his scarlet *Firecracker* into the yard at the white house.

"A clean get-away," he boomed to Judge Hand. "Almost like the old days it was; down the old river like chowder through a dinner horn, over the dam at Chippewa Falls, and on down over the pulp-mill dam at Eau Claire. I say if Nagel did that single-handed, he's a *man*."

"That may be," said the judge drily, "but he's also a very dangerous criminal. Why didn't somebody stop him?"

"He came too fast, that's why," shouted Mr. Lacey. "It wasn't until an hour after the explosion that any of those crack-brained engineers had the notion of telephonin' to the Falls, and the wanigan had a twelve-mile current that night. Nobody knows how he got the boat over the first dam, but at Eau Claire he was *seen*, just before daylight, by one of the night watchmen. He was slidin' down that skidway by the dam like a bookkeeper on a roller coaster, and the watchman thought he was seein' the ghost of Paul Bunyan himself. Nagel made the head of navigation in record time, and he's probably passin' Memphis by now."

"And good riddance," said the judge.

At the first opportunity Tod Hand spoke to Old Man Lacey alone.

"Mr. Lacey," he asked nervously, "have you been on Thornapple Fork since Saturday night?"

"No," said Mr. Lacey. "Why?"

"Ed Button has gone."

"Gone! Where?"

"I don't know; I've been over there three times in the canoe, and there's no sign of him or the dog—only his old duck boat chained to a tree."

"H'm, that's funny," mused Old Man Lacey. "I saw his wife in Chippewa Falls this very mornin', and she said he was standin' by to see the farm sink. Where in the world would he go?"

"I'm afraid I know where he's gone," burst out Tod, adding breathlessly, "but please don't tell Grandfather that Ed's gone—he'll think right away that he's in cahoots with Nagel."

"All right, all right, I won't," promised Mr. Lacey. "What is it?"

Tod told him of Nagel's arrival at the cabin on Thornapple in the wanigan, of Ed's familiar greeting, and of the giant's strange remarks about striking for his rights.

"And how do we know," concluded Tod, "that Ed Button wasn't in the wanigan when it shot the spillway?"

"By the Great Horn Spoon, maybe he was," exclaimed Old Man Lacey. "I wouldn't swear that there wasn't another man aboard, and it makes gettin' over those two dams down the river more likely."

"Ed wouldn't do a thing like that, do you think? He wouldn't go off with Nagel."

"Ed Button's as white as they make 'em, but Nagel's bigger. Maybe he *made* Ed go."

"What are we going to do about it?"

"Does anybody beside you and Johnny Headflyer know he's gone?"

"I don't think so. Not yet."

"Well, don't say anything," advised Mr. Lacey. "We don't want to get Ed's reputation all clouded up before we know why he's whipped out. I'll be goin' by Thornapple to-day, and if the water isn't too high I'll go over the corduroy and have a look for myself."

TOD went off to school in deep depression. It would have been a relief to confide his fears to one of his companions, but he and Johnny were sole custodians of the secret, and Johnny's school was ten miles away across the valley. Classes dragged for Tod that day and when he returned to the white house at three o'clock even the new canoe seemed to have lost its attraction. Old Man Lacey was right, he thought; the rising lake was ruining the pleasant valley forever, and the gigantic structure of the Minneconsin dam, like something malignantly alive, was not content with spoiling his river but had also robbed him of a friend.

But Tod's spirits rose as he looked eastward across the tree tops from the rim of Badger Cooley. Into the calm blue of the afternoon rose a slim column of smoke. It was the old signal—Johnny Headflyer was waiting for him on the opposite bank of the Chippewa at Paint Creek rapids. Tod swung the canoe to his shoulders and started down the cooley. The rising water in Badger Creek was now within three-quarters of a mile of the white house, and a paddle of a little over a mile brought him to the foot of the rapids. There was Johnny, poised on a rock while he cast a hand line into the pool.

"This place is full of fish," he announced as Tod beached the canoe. "Want to try a cast?"

"How many have you got?"

"Three, and I threw 'em back; they were just pickerel. But a musky followed the spoon in once, and I

saw his back; he's a foot across, if he's an inch. He's the one I'm after."

"Gosh! Why didn't I bring my tackle?"

"Try mine," said Johnny, handing over his primitive gear, "and if he strikes you'd better brace yourself, because he's a monster."

Tod whirled the weighted trolling spoon about his head and cast it far out into the slowly whirling pool. Hand over hand he drew it in, standing with feet wide apart.

"Did you spit on the bait?" he asked Johnny.

"No," confessed the half-breed.

"Rats! I thought you were a fisherman," said Tod. He carefully spit on the shining spoon and cast it again, saying, "Come on now, Alec!" Why he addressed all fishes as "Alec" Tod himself hardly knew, but his system of nomenclature seemed to have efficacy. A sudden tug at the line nearly pulled him off the rock.

"My gosh! It's something."

"Look! It's the big one," yelled Johnny.

It was indeed the big muskellunge, as they saw when forty pounds of fighting fury made two arching leaps at the further edge of the pool. Tod sat down swiftly on the rock; a big one at the other end of a hand line takes some handling.

"Hold on to me, Johnny," he directed. "That's the king of all the muskies we've got."

FOR fifteen minutes it was nip and tuck, a gain of a few feet, and then a mad dash which tore the line through Tod's skinned fingers. Again the muskellunge broke water, then dove, whipping the taut line in arcs of flying water. The fingers of Tod's right hand were bleeding now, but the big fish was beaten. Hand over hand he drew in the line, until the musky, like a half sunken log, could be seen in the water at their feet.

"Careful," warned Johnny. "He'll make one more leap."

As they had no gaff or gun, Tod risked all on the line; one last Herculean tug, and the fish was out on the rocks with both boys triumphantly astride it.

"It's the biggest one *ever* caught," exulted Johnny. "I'll bet he weighs fifty pounds."

"Isn't he a monster!" gasped Tod weakly. "If only Ed Button were here——he'll never believe it. Look at those jaws—like a crocodile's. I'd never have gone swimming in this pool if I'd known he was cruising around."

They thrust a willow pole through the gills of their prize and bore him to the canoe; then portaged by the rapids and set out for Topsy Caribou's house. They would salt the head for an everlasting trophy to help them remember what Paint Creek rapids had yielded in the good old days before the lake rose up to cover them.

The rotting logging bridge that crossed Thornapple Fork now cleared the water by only a foot. As they were lifting the canoe across, Johnny's keen eyes noticed a flash of red through the thicket of dense swamp alder. They paddled over to investigate and found Old Man Lacey's *Firecracker* standing deserted on the corduroy road, hub-deep in water.

"Looks like Old Lacey's over at Ed's place," said Johnny. "Let's go over and see if he's found out anything."

"Golly!" remarked Tod. "That flivver of his can go anywhere, can't it? I shouldn't wonder if Mr. Lacey could shoot rapids in her."

"He'll probably try it one of these days," said Johnny. "Since Nagel shot the dam, Old Man Lacey's nose is out of joint. He was the king of the white-water shooters and now he's the—he's the——"

"The two-spot," suggested Tod.

At the foot of Ed Button's knoll they put the canoe ashore. The decrepit duck boat swung lazily at its mooring chain, the cabin was silent, and the porch deserted. The boys were sobered by the unaccustomed quiet; no whoop of greeting from Ed, no welcoming bark from Lep, the shepherd dog. And Old Man Lacey was nowhere to be seen.

"That's funny," said Tod. "He wouldn't leave the *Firecracker* on the corduroy if he was going any place but *here*."

He was just about to raise a shout when Johnny, perhaps prompted by a sixth sense inherited from his primeval ancestors, put his fingers to his lips.

"Let's have a look in the cabin," he said softly.

They mounted the porch, opened the latchless door, and stood rooted to the threshold in mute astonishment. Old Man Lacey was seated in the barrel-chair, seething with helpless fury; he was bound hand and foot with odds and ends of rope, torn-up bed-ticking, and rusty wire. At the appearance of the boys his indignant glare faded to a look of glad surprise.

"Come here, quick," he ordered in a hoarse whisper. "Help me get loose before he comes back."

"Who?" asked Tod, closing the door softly, as Johnny whipped out a knife and went to work on the captive's bonds.

"Nagel," hissed Mr. Lacey, and Tod shivered. "He jumped on me when I came here, two hours ago."

"Is he coming back?" whispered Johnny.

"He *said* so."

"My gosh!" exclaimed Tod. "If he sees our canoe!"

"Has he got a gun?" asked the more practical Johnny, working furiously at the complicated knots and hitches of Mr. Lacey's shackles.

"I don't think so," said the prisoner, "but he's got six feet four of gristle and bone; at that, he had to get me from behind—sh-sh-sh— Listen! Here he comes. Hide, both of you——he's ugly."

THE only refuge was the room in the adjoining lean-to, and the boys made for it. It was empty except for a few forlorn *lares* and *penates* that the Button household had considered too dilapidated to move. A home-made cradle of basswood staves hung suspended by wires from a rafter; a tattered calico curtain in one corner had once concealed the Button wardrobe; in the opposite corner was a nondescript pile of mouldy canvas that had once been a tent, and a few rusty garden tools and some broken oars. Silently and swiftly the boys gained the room and closed the door behind them, just as a heavy tread mounted the steps of the porch. Johnny buried himself in the stuffy canvas and Tod flattened his body behind the calico curtain.

Apparently Nagel had not seen the canoe; he was whistling tunelessly as he entered the room where Old Man Lacey still sat rigidly in his half-cut fetters. Through the wall the boys listened breathlessly.

"Look!" they heard Nagel's voice. "Tell me is dis a jack pine?"

"No," replied Mr. Lacey irritably, "it's a Norway pine. What are you doin', studyin' botany?"

Nagel did not deign to answer.

"Is *dis*?"

"No."

"Is *dis*?"

"That's a jack pine," admitted Old Man Lacey grumpily. "Say, what's your game, anyway?"

"Patience, patience," Nagel admonished soothingly. "Pretty soon I tie you loose—Nagel don't hurt peoples dat don't monkey wit him."

"Why, you blasted dynamiter!" exploded the prisoner. "*I* know you tried to blow up Minneconsin dam—and what have you done with Ed Button?"

"You sure dis is jack pine?" repeated Nagel, ignoring Lacey's outburst. "You don't fool wit me, eh? You fool wit me and it's not so good. I go do little digging now, and pretty soon I tie you loose."

The floor creaked, and the boys in their precarious concealment almost ceased to breathe as the door into the lean-to crashed open. Without daring to look they knew that Nagel was hesitating in the middle of the room as if searching for something. Standing tense be-

Johnny emitted a shrill war whoop and sprang on the fallen giant, while Tod tackled his knees.

hind the flimsy curtain, Tod heard the floor creak in the opposite corner, and then a clatter as one of the broken oars fell to the floor. He ventured to look through a rent in the calico; Nagel with his back to him was rummaging in the pile of debris where Johnny was crouching. Suddenly the blond giant leaped back as if he had touched a rattlesnake.

"So!" He drew in his breath in consternation. "So! Come out of dere!"

Paralyzed with dread, Tod watched as Johnny crawled out of the pile of canvas and faced the big man.

"So!" breathed Nagel again. "You come also to spy on me!"

Johnny stood in his corner, speechless but calm.

"You fool wit me, I wring your neck," Nagel threatened, still unnerved by the sudden apparition.

His back was turned to Tod's corner; if anything was to be done it must be quickly. Tod's eyes roamed the room for a possible weapon. Johnny was empty-handed, and the blond giant stood between Tod and the broken oars. If only he could lay his hands on one. And how hard did you have to hit a man in order to knock him out?

Tod's gaze fell on the cradle suspended from the rafter and he had a sudden inspiration. Stepping catlike from his hiding place he grasped the framework and drew it back toward him. If Nagel stood his ground for two seconds more, the cradle would catch him fairly at the knees in its downward swing. Breathlessly, with every muscle taut, Tod raised the basswood box over his head to the very limit of its possible arc. "I wonder if it'll rock *him* to sleep," he thought insanely. The rafter from which the cradle swung chose that moment to creak.

NAGEL turned and Tod, with every ounce of strength he had, let him have it. With a yell of surprise, Nagel jumped to hurdle the flying cradle, but he was an instant too late. The wooden bars tripped him violently across the shins and he crashed to the floor. Johnny emitted a shrill war whoop and sprang on the fallen giant's back while Tod tackled his knees. From the next room they heard a volley of curses and a tremendous clatter of breaking furniture, and Old Man Lacey burst through the door on all fours, with the barrel-chair dragging at his ankles.

Nagel thrashed and kicked like a yearling steer, but Johnny held on grimly with his own Chippewa version of a headlock, and Tod, though the wind was half knocked out of him, kept his grip on the giant's convulsive legs. Mr. Lacey, encumbered as he was, shambled over swiftly and sat on the prisoner's stomach, from which vantage point he was loudly voluble.

"Now, you bounding buck jumper! You dirty dynamiter! You *will* sneak up behind honest people! You *will* tie me up, will you? I guess we'll put you now where you can study your botany indoors. 'Is *dis* a jack pine?' I know you're crazy, but when you tie me up to teach you botany you're gettin' too crazy to be loose. And those engineers at Minneconsin dam, *they'll* be glad to see you."

Mr. Lacey emphasized his remarks by getting off Nagel's stomach and sitting down again forcibly, until the captive begged for mercy.

"*My* bonds are asunder," announced the old man, who had finally kicked himself free from the barrel-chair. "Now we'll tie *him* up; put this rope around his ankles, Tod. Though the ungodly lay snares for me—tie him tightly—his goings shall slide and he shall trip against a stone. Put this wire around his wrists, Johnny. Our bomber's goin' to sleep behind bars to-night."

"That's two prizes to-day," gasped Tod when he had partially recovered his wind.

"Huh?" inquired Old Man Lacey.

"We've got a fifty-pound musky in the canoe outside."

"That makes about three hundred pounds of game," said Mr. Lacey. "Not a bad haul. Untie his ankles, now, Tod; I've got his knees bound. We can't be bothered carryin' him—he's goin' to walk to my car."

They heaved the crestfallen Nagel to his feet, swaddled from chin to knees, as in a strait-jacket, with rope, canvas, and wire. Out of the cabin and down the path to the swamp they led him, and knee-deep in water along the corduroy road to the place where the *Firecracker* stood.

"I'll have to leave you here," said Tod regretfully. "I've got to get home to supper and my home work."

"All right," assented Old Man Lacey, "though I'd say you'd done enough work out of school for one day. Johnny'd better go with me as far as Thornapple jail; that is where our dynamiter's goin' to stay to-night. The dep'ty sheriff'll be pleased to have a customer."

And he heaved Nagel into the back seat of the automobile.

"So long, Tod," said Johnny, speaking for the first time since the *melee*. "That was fine work with the old cradle."

"The *what?*" boomed Old Man Lacey.

Johnny waded in to help him, and together they dragged the dripping prize to the fire.

"Tod hit him with the cradle," explained Johnny, his black eyes snapping. "That's the way we got him on the floor in the first place."

Old Man Lacey exploded with laughter.

"By the Great Horn Spoon!" he roared. "That's good. Of all the weapons! I used to know a woman that beat her husband with a rattlesnake, but a cradle! My stars!"

Tod cranked the flivver, waved farewell, and started back for the canoe and home. As the disappearing *Firecracker* rattled and splashed toward higher ground he could still hear Old Man Lacey's sonorous merriment.

"I've heard it for sixty years, Johnny, and now I know it's true," the old man was proclaiming to the world. "The hand that rocks the cradle rules the world."

Chapter Five

THE following week Painted Creek rapids disappeared forever. The white water where Old Man Lacey had won his fame as a riverman had become a placid strait and Ed Button's knoll was a forsaken island in the rising lake. The portage from the lawn of the white house on Spring Valley road to the bay that was creeping up Badger Cooley shortened daily, and once the canoe was in the water there, Tod Hand could paddle straight across to Johnny Headflyer's without lifting the craft out of the water.

The nine-days' wonder of the dynamite plot had received fresh impetus with Nagel's capture; and the news of Ed Button's flight, inevitably transpiring, gave rise to lively speculation among the people of the valley. Condemnatory tongues were not idle; the fact that Ed was gone seemed equivalent to admission of some sort of guilt, and there was some underground rumor that Ed was involved in the business just as much as Nagel. The latter languished in the one-room jail on Thornapple Fork, refusing to talk and whiling away the time until his trial by eating three enormous meals a day and singing strange unintelligible songs to the accompaniment of a banjo-like instrument that he had contrived out of a cigar box.

Saturday had rolled around again, but was not so welcome as usual to Tod Hand. The weeding of the garden was his appointed chore, and a neglected one since these stirring times had come to the valley; so it was that this blistering hot May morning found him busy with a hoe among the bean rows. Fleecy thunderheads were piling up in the south and the air was ominously still and muggy. By noon the sky had darkened and before the family had finished dinner the storm broke. Tod's agricultural pursuits were over for the day, and he curled up on the horsehair sofa in his own room with a tattered volume of *Caesar's Gallic Wars* and started cramming for the approaching final examinations.

He laboriously worked out the complicated Latin of the chapter which tells of the strange beasts of the Hyrcanian Forest, and wondered what first-century Paul Bunyan had related these tales to the credulous Roman. That beast with no joints in his legs that could be captured only by sawing nearly through the trees against which it was wont to lean while sleeping—a sort of an elk, Caesar called it—was worthy of one of Old Man Lacey's legends. And the unicorn had certain points of resemblance with the hodag. If Caesar could visit the Chippewa valley Mr. Lacey and Ed Button would be glad to prime him with material for many new chapters. Poor Ed! Tod wondered where he was and, while he was wondering, fell asleep.

It was late afternoon when he was awakened by a familiar clatter in the yard. That particular asthmatic cough could be only Old Man Lacey's *Firecracker*. Tod went downstairs and found the *Firecracker's* proprietor in the library with Judge Hand. The violence of the storm had passed, but the sky was still overcast and the rain fell gently.

"My big mistake," Old Man Lacey was booming, "was in not makin' him talk when *I* was in charge of him. I could have choked somethin' out of him, and would have enjoyed doin' it, after the way he climbed my totterin' frame that day in Ed's cabin. Yes, sir, a little of the methods of the Spanish Inquisition would have given me real pleasure, and I'll bet I'd have found out somethin' besides. I've got no patience with these humanitarian jails. Why, that rascal is *enjoyin'* himself over there at Thornapple, eatin' his head off and singin' like a blasted canary. And when anybody says 'Ed Button' to him he just gives a silly grin and shuts up like a coon trap."

"If Ed Button can clear himself, why doesn't he come out and do it?" asked the judge.

"Maybe he can't come back."

"Why can't he?" said the judge. "Nagel did."

"I'm wonderin'," said Mr. Lacey, "if Nagel hasn't got him held prisoner somewhere."

"That doesn't seem reasonable; Nagel's a prisoner now himself, and he wouldn't make it worse for himself by aiding to keep Ed tied up somewhere. He probably knows where Ed is, as you say, but my guess is that Ed's perfectly free to come out and tell what he knows. But I'm afraid he's in the thing so deeply he doesn't dare."

"I disagree," roared Mr. Lacey. "I've known Ed Button since he could walk under a bed without stoopin', and I'll swear he's innocent. I think he's fixed somewhere like Nagel fixed me in that barrel-chair, so he can't get loose, or else he's hidin' out because he doesn't want to testify against Nagel."

"If he's innocent himself, why in the world shouldn't he want to testify against Nagel?"

"There you have me, Judge," admitted Mr. Lacey. "Ed Button is a rare character; he has a sense of duty, even to a dynamiter. Nagel had been a friend of his, it seems, and lord knows what Ed's conscience is tellin' him to do. But I'll bet the roof off the shanty boat that he comes through (*Continued on page 31*)

The American Boy

FOUNDED 1899

Published Monthly by
THE SPRAGUE PUBLISHING COMPANY
DETROIT, MICHIGAN, U. S. A.

GRIFFITH OGDEN ELLIS, President.
ELMER P. GRIERSON, Secretary and Treasurer.

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January, 1929 Vol. 30; No. 3

Friendly Talks With the Editor

New Year

THERE'S something about New Year. It means a lot of things. A fresh start—a new page of your life better written than the last. For the merchant it means a larger volume of business. For editors, a better magazine. For all of us, this year, a new President. It's a day of resolutions. There's hardly a person in the land who doesn't consider making a resolution. If you put all the resolutions end to end, you'd have a chain extending from Oshkosh to Wednesday.

Many of 'Em

WE wish you a lot of New Years. We wish you at least fifty of them from now to January 1, 1929. In other words, we figure that between now and next January you'll have at least fifty chances to make resolutions. Resolutions are the butt of many jokes, but they're a good habit, just the same. A resolution means that you recognize some error you've made. It means that you want to correct it. Every fellow—even if he ranks perfect in school, plays on three athletic teams, edits his school paper, is good to his folks, and chews his food well—will find at least fifty chances to improve himself during the coming year. So we wish you at least fifty New Years.

A Baseball New Year

PERHAPS you'll be going out for the baseball team this spring. In a practice game you'll take your place at shortstop. You've always been used to playing deep—far from the base line—and that's where you take your stand. But there's a fast man at bat—a chap who can beat out infield rollers. He hits one at you, you field it faultlessly and make a fairly good throw to first. But the runner beats it by a step. At first you're inclined to think that it couldn't be helped. But the coach takes you in hand and explains that for the speedy batter you should play close to the base line so that you can reach the grounder sooner and speed it to first that fraction of a second earlier. Right then is a good time for you to have a private New Year all by yourself. Make yourself a shiny little resolution and tuck it away where it's handy.

An August New Year

MAYBE you and a couple of your friends will embark in a battered car for a long jaunt this summer. You'll camp out at night, and at noon you'll eat your lunches in the prettiest spots you can find. A solid feeling of contentment you'll have after one of these lunches. You'll yawn and stretch, take a satisfied look at the rolling country, and start to climb into the car and start off in search of new sights and new thrills. Then you'll notice that one of your companions is gathering up the rubbish left over from your lunch and you'll realize, suddenly, that you were the one who left that stuff lying on the ground. Another good occasion for a New Year and a resolution that from now on you're not going to mar the scenery for the next motorist by littering it with trash.

A Courtesy New Year

OR you might be guilty of an unintentional act of discourtesy, like elbowing somebody in a crowd. You'll decide, then, that an unintentional discourtesy looks as bad to the other fellow as an intentional one, and you'll resolve to be more alert. Recognizing your own errors and profiting by them is a healthful habit. It ought to be promoted.

The Double-Cross

SOME day you will be interested to read the lives of such men as Uncle Daniel Drew and Jay Gould and Jim Fiske and Commodore Vanderbilt, because they are a part of our national history. Just now we want to take Uncle Daniel as a horrible example. He was a sharp old skeezicks who made a great many millions, and was the principal opponent of Commodore Vanderbilt when he was fighting for control of certain railroads. Well, Uncle Daniel had just one dependable quality: he always could be trusted to double-cross anybody he was doing business with. Nobody could rely on him. He hadn't a friend. In the end he died comparatively poor—for no other reason than this. He had double-crossed everybody until no one would join him in anything. Double-crossing was his ruin. It can ruin bigger men than Uncle Dan'l Drew.

Ambition

WE heard the other day of an old lady of nearly eighty who felt that her life had been pretty humdrum and useless, so she decided to carve out a career for herself. As a matter of fact her life had been fine and full. The fact that it had been a fine life was proven by the fact that, when she was near the end, she still burned with ambition. To desire to carve out a new career at seventy or eighty is, by itself, such an achievement as makes a successful life.

Good Nature

GOOD nature is a weapon which will mow down more enemies than a machine gun. If we ever have to go into battle against a man, we hope he is an ill-natured man. We saw the thing work out recently. A situation had arisen which was loaded with dynamite. Men were prepared to hate each other, and it looked like cruel war. About a week before the battle was to be fought a man wrote a little, good-natured piece of not more than two hundred words. He didn't make fun of the situation, but he didn't take it seriously. He was just friendly and good-natured about it. Everybody read it and went to the meeting—and there just wasn't any battle. You can't be good-humored and want to poison a friend.

Jealous

WE were at a meeting of rather distinguished persons the other night. Some plans were discussed. Everybody thought the idea good and valuable, but one objection was raised to it: That certain persons would be more or less honored and that certain other persons might be jealous. Now wasn't that silly? The idea that a fine object should be frustrated because of petty jealousy. We hope you fellows haven't any of that commodity. If honors come to a friend we hope you are glad. If you fail to achieve honors, we hope it does not sour you. Everybody cannot be honored, and if he was it would be useless to honor anybody. No. If you fail of honors, don't be jealous. If you achieve honors wear them modestly. You may have gotten them only by the skin of your teeth.

Take a Chance

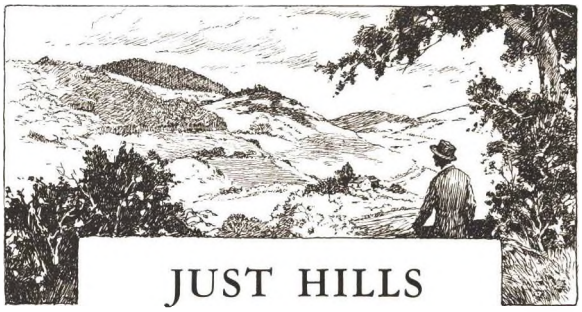
IT is all right to take a chance—if your brains are behind it and if they tell you that there is more than a bare possibility of the thing coming through. But to take a chance, when all good judgment is against it and the consequences of failure will be pretty bad, is just idiocy. We saw a football game a few weeks ago. It was lost by taking a silly chance. The score was nothing to nothing. The ball was in mid-field. There were six minutes to play. And it was fourth down with four yards to go. Instead of punting, the quarterback called for an end run. The back was thrown for a loss and the ball went over. A punt would have put the ball thirty or forty yards farther from the goal line. Well, the opponents barely scored before time was called. Superior headwork didn't decide that game—just rotten judgment.

Praise

THERE are two kinds of praise in the world. There is praise from your friends, which warms your heart. And there is praise from men who know what they are talking about, which delights your intelligence. The idea is not to be misled by the praise of your friends, but to do the sort of job that both friends and experts may praise.

Different Talents

DON'T be sour if your talents happen not to be the same as someone else's. Not so high-brow, maybe. For a talent is a talent, and yours may be a pretty good one. The other day we sat at a dinner. A star from the opera sang. She was rewarded with great applause. Then a very gentle and learned French abbe spoke wisely. His applause was equal or greater than the singer's. Next a rough-necked, uneducated vaudeville performer talked in his own way. It was wise, too, and witty and very funny. His applause was as great and sincere as that given the other two. So there we have three different talents. Some might have been of a higher sort than the others. But all were real and honest, and the performance was as good as it could be. So why should the illiterate vaudeville man be sad because he had not the learning of the abbe or the voice of the singer? He had something and he made the most of it. Which, to our way of thinking, is the right way to look at it.



JUST HILLS

By EARL W. SCOTT

Hills is just plain people,
With their faults left out.
Neighbors mute,
Just growed tuh suit
Us hombres hereabout

Friendly humpin' neighbors,
In sunshine, snow or rain,
Always there,
Tuh see an' care,
When you gets back again.

There's brown an' sunny hills fer joy,
Blue shadowed peaks fer sorrow.
Just land growed high
Fer air and sky,
Earth reachin' towards to-morrow.

He pulled down several veranda posts and butted a huge hole in the wall of the room where a crowd of refugees were huddled.

When the Tusker Went Mad

By J. B. M. Clark

Illustrated by Fred C. Yohn

THIS is the story—the true story—of how Billigammana went crazy. Billigammana is one of the largest elephants in Ceylon, and ordinarily he's the most tractable, willing tusker in the world. But people in Ceylon won't soon forget the time he ran completely and utterly wild.

Billigammana developed his wild streak just after a big kraal, held in the rough country near the jungle village of Ambanpola. You know what a kraal is—the chasing of wild elephants from the jungle into a stockade. Nine thousand native beaters took part in that kraal. They formed a semi-circle twelve miles in diameter, and with tom-toms, unearthly yells and gunfire, drove the wild herd toward the stockade. And after the herd of thirty-nine elephants was safely inside, the big tusker Billigammana did more than his share of work in getting his wild brothers noosed and looped to trees.

Bearing a mahout on his back, he forced his way into the milling herd, and with the help of other decoy elephants, escorted one captive after another to a position where he could be noosed and tied.

He even stuck faithfully to his work while a wild bull elephant tried to yank his tail off. It happened this way. Billigammana and another decoy had sandwiched the wild bull and were edging him toward the tree to which he was being pulled by a third decoy whose mahout had noosed the captive around the leg. The bull was kicking up a big fuss, and screaming almost human cries of protest. Billigammana and the other tame elephants were doing their best to keep him still.

In the struggle, the wild bull caught sight of Billigammana's tail. That was his opportunity. With a swirl of his trunk he grasped it, and with a powerful yank tore the end of it clean off. Billigammana—we might as well call him Bill for short—screamed with pain, but stayed right at his post.

THAT an elephant with Bill's excellent qualities should run so completely amuck, is one of the surprises of elephant nature. The wild streak began when Bill was out collecting fodder for the captive herd. With no warning whatever, Bill suddenly attacked one of his mahouts, killed him, attacked the other, left him for dead, and disappeared into the jungle.

Bill was an extremely valuable animal, and his owners were eager to recapture him. But wild elephants are not very nice playmates in a game of tag—especially Bill, who feared neither man nor fellow elephant.

Nevertheless, they set out to get him. First of all, a cow elephant was tethered to a tree near the spot where Bill had entered the jungle. A cow elephant can always be depended upon to lure a rampaging tusker back into captivity. But unfortunately, the cow was tethered near a bungalow belonging to a local resident, and none of the inhabitants of the house dared to go to bed that night. They kindled huge fires and placed every available light around the veranda, to keep the animal away.

For nine days, the formidable beast stayed on the rampage, doing an enormous amount of damage to property. He remained in the vicinity of the bungalow, smashing the owner's fences to pieces, eating the fruit and systematically rooting up and destroying the trees. He ruined the year's entire planting. He kept such a close guard on the place that for a long time the ladies of the house were unable to escape to safer climes.

On one occasion, the owner of the bungalow had a terrifying experience. With six coolies, he was watching in the central hall of the house, which had only half walls separating it from the veranda. Sleeping in that house was out of the question, as the huge brute might proceed to wreck it at any moment. All lights were out and the place was absolutely quiet. Suddenly, without a sound (for elephants can move almost without noise) the moonlight disappeared from the room, and Bill's head, trunk, and foot were thrust into the veranda. He immediately started tearing down the matting screens. Then, with snorts and grunts, he waved his trunk about, within a few feet of the watchers. They remained absolutely silent. After feeling the chairs and tables, the animal moved away. It was by the merest chance that he did not discover the watchers.

"As far as I can guess, the only reason he didn't scent us," breathed the owner thankfully, "is that a very thick smoke from a fire outside was blowing straight into the hall."

The unfortunate cow elephant, who had been tethered near the bungalow to lure Bill back to his home and his labors, was the chief sufferer. No one had been able to get near enough to her to release her. And Bill, whenever he fell into a fit of rage, trotted straightway to her and beat her soundly with his trunk.

Generally, though, after a few minutes of this unkindness, he seemed to realize that this was his only friend, whereupon he would stop, stand still beside her, and hang his head, as if in shame. Then, as suddenly, something would rouse his anger, and off he would charge.

Mahouts, stimulated by the huge rewards offered for his capture, made many hair-raising attempts to rope him. Twice, he was actually noosed with a wire hawser, but each time he broke it like so much thread.

ON one occasion, two men climbed into a tree. One of them had a bunch of bananas—Bill loves bananas—and the other, a stout rope. After much waiting, they spied Bill trotting their way. When he stopped under the tree, the man with the bananas attempted to feed him while the other prepared to cast his noose. But Bill wouldn't feed. Instead, he backed off and charged full tilt into the tree. Time and again he did this, while the men hung on for dear life. Finally, the huge elephant wearied of his pastime and sauntered away. The men slid down the tree and scurried to safety.

Several times the natives dug pits along Bill's line of march, and carefully covered them over. But Bill was much too foxy to be caught in that way. On one occasion, the natives saw Bill walking along slowly, evidently suspecting that the ground might collapse beneath him. He

(Continued on page 53)

Build the High-Climb R.O.G.

Then Change It to a Soaring, Lazy Biplane

By Merrill Hamburg

Secretary of the Airplane Model League of America

Here it's a high-climb R. O. G.—

but here it's a soaring biplane!

342 Seconds!

Some flight!

Albert Mott made it, in the First National A. M. L. A. Indoor Contest last June, with his indoor pusher, and won senior first prize, a cup, a medal, $200 and a summer in camp. Only one model flew longer than his. He developed his plane from experiments with the pusher introduced last year. The pusher, says William B. Stout, A.M.L.A. president, is the coming type. Why not try some experimenting yourself? The kit may be obtained from the Supply Department, Airplane Model League of America, American Boy Bldg., Second and Lafayette Blvds., Detroit, Mich., and it costs only 65 cents in check or money order. Easy to build, too. There will be no new indoor endurance pusher in THE AMERICAN BOY'S airplane model series this year. But there's a good chance that somebody will build a pusher that will beat the tractors hands down!

ONE day last spring a group of model experts was demonstrating special models before A. M. L. A. members in Albany, New York. The flights were taking place in a big armory, and somebody asked how quickly a Baby R. O. G. could reach the ceiling.

"Here's one that'll get there in about a second," said one of the experts. Some of the boys looked at him doubtfully, for the ship he held in his hand was a little biplane, one that soared beautifully but wasn't made for high climbing or speed.

But he knew what he was talking about. He took his jackknife from his pocket, and with careful strokes he cut the top wing squarely off. He adjusted the wing he had left, wound up the ship and launched it.

And it shot roofward like a rocket! In one big spiral it almost reached the top of the hall. And the crowd of watchers went wild.

Here's your chance to learn how to build that same high-climber, then convert it into a biplane. You'll find it, when you have finished it, a dandy ship for exhibitions. You can show it before your school, or your club, or your dad's luncheon group; you can entertain endlessly with it. And you'll find that, with a pin through the propeller hub, it can't be beat for "balloon-strafing."

To build this two-winged model you'll need the following material—all of it is contained in the High-Climb R. O. G. Kit furnished by the League and described on Page 38.

A balsa propeller block, 3-8 x 3-4 x 5 inches; a flat balsa strip for spars, ribs, etc., 1-16 x 2 x 12 1-2 inches; a balsa motor stick, 1-8 x 3-16 x 10 inches; a strip of bamboo, 6 inches long; a sheet of Japanese imperial tissue, 10 1-2 x 15 inches; a piece of .016 music wire, 10 inches long; a drilled thrust bearing; a propeller shaft; two bronze washers; a rear hook; four wing clips, two front and two rear; two rubber motors, one high-climb type, 1-8 x 30, the other duration type, .045 square, both 21 inches long; two fiber wheels; a two-dram bottle of ambroid; a two-dram bottle of banana oil.

The first thing to do is study the drawing carefully. Be sure you know every part, and just where it goes. Read this article all the way through before you commence to build. Familiarize yourself with everything in the A. M. L. A. Manual, contained in every kit or obtainable from League headquarters for five cents. This article assumes that you have studied the Manual.

Now start on your motor stick.

YOU'LL want a fairly heavy stick, for the high-climb monoplane takes a husky motor—two strands of 1-8 x 30 flat rubber. Sand the stick down to absolute uniformity, 1-8 x 3-16 x 10 inches. A coat of banana oil will strengthen it if the strain of the motor seems a little too much for it; but this also adds to its weight.

Cement the rear hook and the thrust bearing into place, following the drawing. Then get to work on the tail group. The fin, like the championship tractor you built last month, has an all-balsa frame. Cut balsa 1-16 inch in width from the two-inch flat stock—the Manual tells you on Page 5 how to do this. Make the fin by ambroiding three pieces—1, 1 1-2, and 2 inches—together as in the drawing, then fit a fourth side to these three.

One-half inch from the rear end of the motor stick, cut a tiny groove for the cross spar of the stabilizer. The 4 inch spar you can take from the 1-16 inch strip you've already cut from the flat balsa. Sand it down to size, 1-32 x 3-64 inch. Ambroid it into the groove so that its top is level with the motor stick.

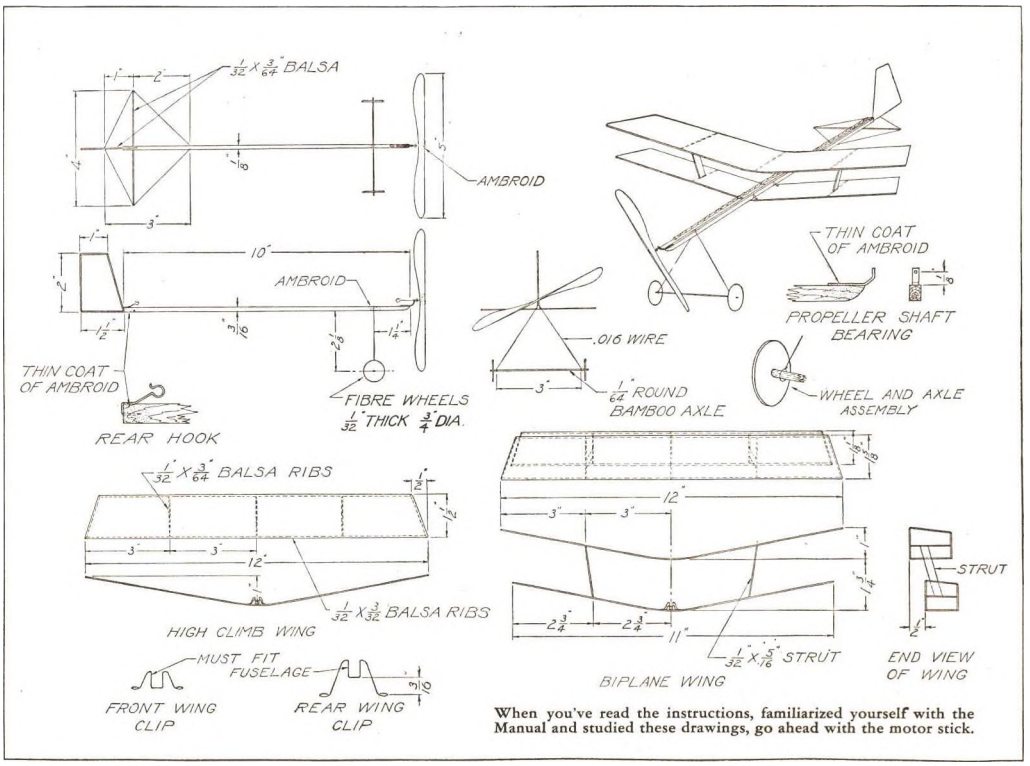
Now cement the fin to the motor stick. Note that the two pieces are "butt-jointed"—that is, they do not overlap, but are joined where they meet with ambroid. Be sure that the fin is vertical—that is, perpendicular to the crosspiece. Check this by laying the fuselage flat on a table and lining the fin up with some vertical line, such as the edge of a square block.

You're probably going to fly this model indoors, so you'll want the fin set at a tiny angle—the rear edge should be 1-8 inch to the left when it is dried. You can increase the angle, if you desire, by breathing on the finished fin—warm damp air will soften it.

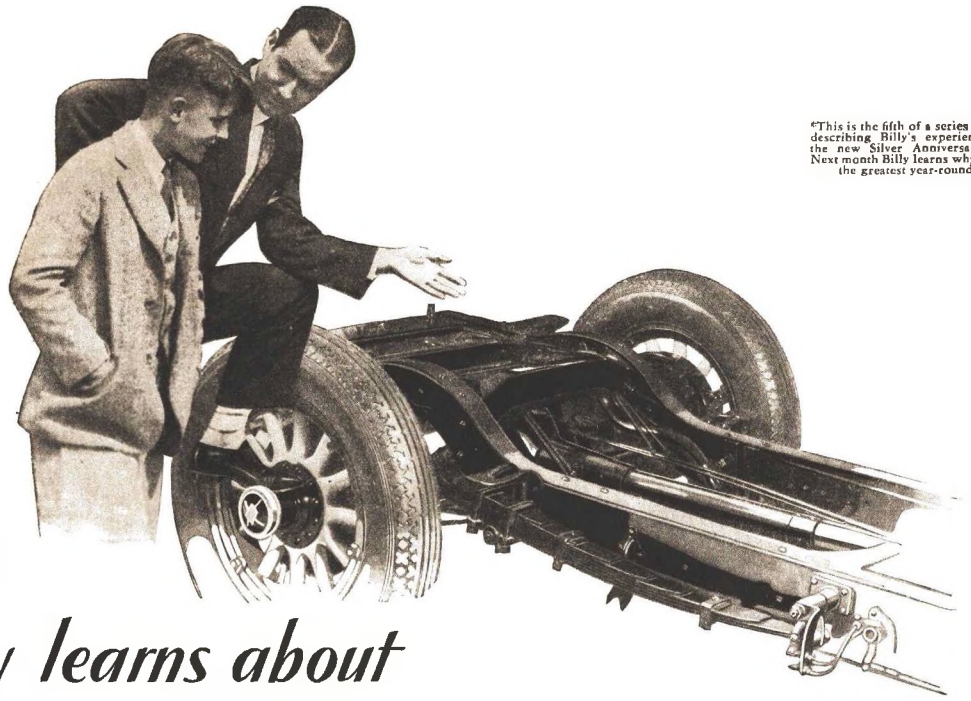
Notice that the stabilizer consists only of the cross spar and the paper covering—there is no thread or balsa outline. Lay out the shape of the stabilizer on your Japanese tissue, therefore, being sure that you're leaving sufficient for the three wing coverings. Then fasten the paper to the fuselage and spar with banana oil—Page 7 of the Manual tells how. Cover the fin, too—one side only.

You have materials for three types of landing gear. In the drawing you see a music wire and bamboo gear. The wire is bent at the center to fit the motor stick; the sides of the V it forms are 2 7-8 inches long and the ends form 1-16 inch loops. Through the loops is thrust the 1-16 inch square bamboo axle, with its ends sanded round. The two wheels are ambroided to the ends of the axle.

If you make the landing gear of bamboo or balsa, it should be of the "split" type—without a complete axle. Bamboo struts should be (*Continued on page 36*)



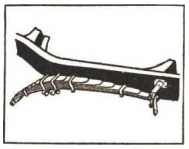
When you've read the instructions, familiarized yourself with the Manual and studied these drawings, go ahead with the motor stick.



*This is the fifth of a series of stories describing Billy's experiences with the new Silver Anniversary Buick. Next month Billy learns why Buick is the greatest year-round car.

*

Billy *learns about the cantilever springs and torque tube drive*



The Buick Cantilever spring is the world's easiest riding type

Buick Dealer (meeting Billy in front of Buick salesroom): "Hello, Billy! How goes it today?"

Billy: "Not so good! We just had our car towed in ten miles because a spring broke ... That might happen even with a Buick though, I s'pose."

Buick Dealer: "No, that couldn't happen with a Buick, Billy. You could drive it home even if you broke *both* springs!"

Billy: "Not with the back fender down on the wheel, I guess, as ours was!"

Buick Dealer: "Well, in the first place, the fender wouldn't be down on the wheel, and in the second place, the sagging of the car wasn't the only reason you had to be towed. Come inside to the stripped chassis and I'll show you. See these two heavy rubber buffers—one on top of each side of the rear axle housing? If you broke a spring—which would be practically impossible with Buick's Lovejoy Hydraulic shock absorbers—these buffers would hold the body clear of the wheels."

Billy: "Is that so? Then why don't other cars have 'em, too?"

Buick Dealer: "Because that alone wouldn't solve the difficulty. Even with buffers, a car would be stranded if a spring broke, unless it had a torque tube. The torque tube leaves Buick's Cantilever springs free to cushion the car—a feature which has made Buick's easy riding world-famous. See here?"

Billy: "So that's the torque tube! Ours hasn't anything like that, I know."

Buick Dealer: "No, in yours the springs actually have to 'push' the car. They form the link between the rear axle and the frame. When the wheels turn, the push or 'thrust' they create is carried to the frame *through the springs,* and if a spring breaks, you are stuck and can't drive a foot."

Billy: "And how is it in Buick?"

Buick Dealer: "In Buick, the springs do nothing except absorb road jolts. The driving thrust reaches the frame via the torque tube, so that the only thought in designing the springs has been to obtain riding comfort. That's why Buick is the world's most comfortable car to ride in."

Billy: "I think I see now! That explains why our car is such a rough-riding bus, I guess!"

Buick Dealer: "That's the answer! Your springs are designed to do *two jobs*—neither one of them very well! Buick's torque tube has just one main function—to convey the driving thrust from the rear axle to the frame. And Buick's cantilever springs are designed for just one purpose—to cushion the car."

Billy: "That's certainly plain now. And it's a great point for Buick. I'm going to show Dad that chassis one of these days!"

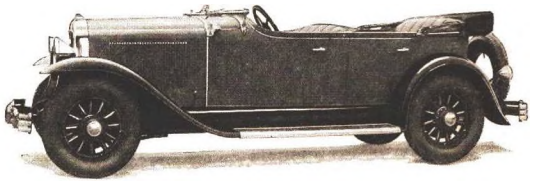
Buick Dealer: "Do that! Remember, torque tube drive and Cantilever springs—each designed and built to do *one* job, and do it well!"

BUICK MOTOR COMPANY, FLINT, MICHIGAN
Division of General Motors Corporation
Canadian Factories: McLAUGHLIN-BUICK, *Oshawa, Ontario*

THE SILVER ANNIVERSARY

Buick

WITH MASTERPIECE BODIES BY FISHER



WHEN BETTER AUTOMOBILES ARE BUILT . . . BUICK WILL BUILD THEM

Stunt 'Er, Jimmie!

(Continued from page 20)

I claim it was *some stunting*, even if the head work *was* weak."

He rose to three thousand, and then, map board strapped to knee, leveled off, pointed N. 9° W., and held the ship at cruising speed. His track and course was checked. He had allowed for the drift caused by the slight wind, and with only eighty miles to fly, he should pick up Sequilla—he glanced at his wrist watch—in an hour. By 11:30 easily. The Texas air was crisp and his flying took on color. It was one of his good days. All airmen have them—days when flying becomes a natural function, like breathing. Days when nothing seems impossible.

"Bet I could dive from a thousand, spin her wheels on the terrain, and never break a shock cord," murmured Jimmie.

He had seen a lieutenant at Brooks Field—the same Crazy Gilchrist mentioned by Morgan, an attack pilot in the war—do this stunt, and he yearned to emulate it. Dive and spin her wheels—that would be fun.

He sighted a railroad below and sent the P. T. into a long dive for the little station, read the name as he zoomed again forty feet above her roof, and climbed back satisfied. He had "shot" a station. Also, a minor detail, he'd proved that he was on his course.

Another half hour and he picked up Sequilla, a straggling huddle of frame houses. The fair grounds, Lieutenant Olds at Operations Office had said, was a good landing field. He "dragged" the town from twelve hundred feet. The oval fence of the fair grounds came in sight; but inside, two brown mildewed tents were pitched, and near them was what looked like a moored balloon. There were gaudy wagons, a horse corral, straw scattered all about. A crowd of people milled in the inclosure. He saw their white faces upturned.

He cut the gun and circled, testing his motor with a spasmodic burst as he skimmed lower. A moment he maneuvered to lose more altitude and landed, finally, close to the board fence.

THE crowd came running up to stare at this bird man. One man wore a red cap with K.C.Q. worked on it in gold letters. He was wrinkled, and a big scar seamed his face from the lobe of the right ear to his chin, but his eyes were bright and friendly.

He nodded.

"Army flier, eh? Don't ride on them Jennies any more."

"How are you?" answered Jimmie. "Yes, I'm from Brooks Field at San Antonio. A cadet."

"A cadet? Well, now, you know if I was younger I'd be right in there myself." The red-capped veteran nodded. "I've done a little of it in my time, at that."

Jimmie glanced curiously at him.

"What's this? Circus?" he asked.

"Well, kind of. Kilrain's Carnivorous Quadrupeds—animal show. Ed Kilrain's—might 'a' heard of him. He's away now and I'm a straw boss." Then, dismissing the subject, he returned to his preceding sentence. "Yes, I stunted in them crates when the papers called them 'flying machines,' and they held enough out on your pay each time for a first class funeral."

"That so?" grinned Jimmie. "You're a pilot then?" The crowd was close about them and he called out, "Back a little, please! Those wings won't support the whole crowd."

"Get back, you folks," added the man, and turning, herded them away. Then he came back to Jimmie.

"No, I ain't a flyer. Stunt man. Shores is the name. Used to get that name in the 'Billboard' often. Flew in San Francisco Bay with Lincoln Beachey—that's a fact. Used to stand on top a wing, wave a white flag signal, then change ships in the air. I believe I could still. But now," he laughed deprecatingly, "I'm ridin' Ed Kilrain's balloon and doublin' in cats."

"Cats?" queried Jimmie, puzzled.

"Well mostly. We got one mangey lion with the asthma and an elephant and some nasty-tempered camels, but that leopard is my chore—confound her!"

"Leopard?"

"Yes. Pandora—and safe as dynamite. Ed got her from Capetown two year ago when he was flush. That was 'fore the Trust started bustin' little shows. Guess he wishes he could get back half what he paid, now. A good fire would be the best thing."

The veteran laughed, then leaned close. "Busted! We owe feed bills for our whole winter here. Can't get away. 'At's why we're givin' this p'formance. Tough on Ed. Only reason why I'm stickin's 'cause we're old buddies."

Pulling out an old silver watch, he glanced at it absently, and then drew in his breath.

"Gosh! Near twelve. Grand balloon ascension at noon sharp. Come see the bag, Capt'n."

"Can't leave the ship. I'm sorry," answered Jimmie. Somehow he felt drawn to this grizzled old-timer.

"Shucks, I'll send a couple hustlers to rope it off." He elbowed through the crowd and returned with two overalled helpers.

"Joe, you and Harper bend a rope around some stakes—can't have folks monkeyin' with this airplane. It's John Government's." He motioned to Jimmie. "Come on. Show you the animal tent 'n' the 'Last Jit'—that's my balloon."

FOLLOWING through the aimless crowd, Jimmie's heel struck something and there was a melancholy "yip." He turned quickly to see behind him a long-bodied, bandy-legged dog with floppy ears like an English sportsman's cap, and a sentimentally reproachful look in the brown eyes. Jimmie bent down. He liked dogs—without distinction.

"Well, pup, I might have raised that heel a little slower." He snapped his fingers and the dachshund, with its dark red summer-sausage coat, waddled up, its sway-back curveting in awkward joy.

"Down, Mussel!" ordered Shores. Then, as Jimmie straightened up, the circus man went on. "Mussolini. Ed calls him that fer he's always mixin' in with the tent crew—the black shirts. Mussolini don't like animals." He paused ruminantly. "His legs ain't standardized enough fer a dog, I think."

"His undercarriage does drag a bit," agreed Jimmie.

Shores turned, passed by the front entrance, and entered a big rain-spotted tent through a slit in the canvas. He motioned Jimmie after him.

In a moment they were standing before the leopard's cage.

"Pandora," he grinned. "Ed calls her that cause she's curious to know what's inside—of humans."

Behind the bars, a big spotted cat stopped for an instant her noiseless padding to and fro and stared out. The topaz eyes, gleaming in the semi-dark, were like cold fire, remorseless, chilling. A moment she stared, then resumed her sinister patrol.

"Killer. Broke out once in Kansas. Got the keeper. Them claws of hers are nine inch razors. Leopards is the worst scrappers of them all. Tigers—bah!"

Abruptly, Shores opened a tent flap to the sunshine.

"Now, here's the balloon—an eighty-footer. Call her 'Last-Jit' 'cause she won't go far."

The balloon, staked down, tugged a little at her moorings. The reed basket was still on the ground.

"I go up with five hundred feet of drag rope and they follow me and windless me down. Only float about six miles or so. Can't be reckless with the gas. Use coal gas 'cause we can't afford hydrogen. Well, it's time to go up. Kin you stay 'til about four—feedin' time? I'll be down then and you kin hear Pandora hog down her fifteen pounds of beef. If you got any imagination at all, it's 'most as good as being et, yourself."

But Jimmie shook his head and, thanking Shores, said good-by. He pushed his way back through the crowd toward the plane.

The crowd was moving down the field toward the balloon, which had been towed to the center of the race track. A raucous voice advised the multitude that—

"Senyore Cordellero will now attempt to set a new high mark for altitude—the best previous record being forty thousand feet—eight miles." As the leaky old balloon had perhaps a ceiling of ten thousand feet, and as Sr. Cordellero—old man Shores—waving to the crowd, was garbed in white cotton tights, Jimmie felt certain that no new records would be set.

Then the balloon, released, bounded upward, hung for a moment, and began steadily to ascend. The day was still and the gas bag, drifting not at all, continued rising almost above the circle of the race track.

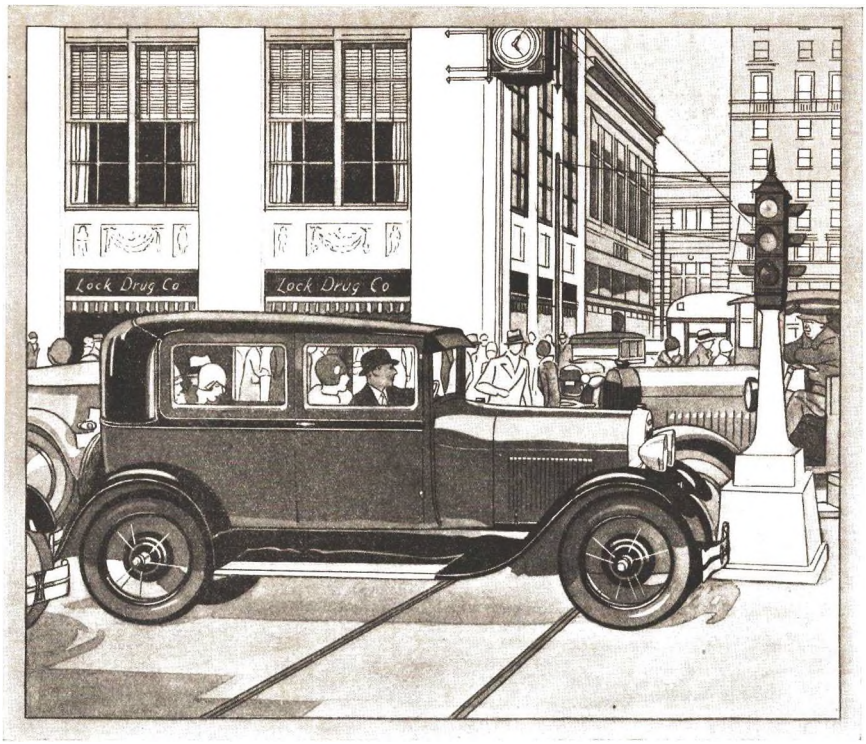
It occurred to Jimmie that now, while the track ahead was clear of people, was his time to take off. He opened fuel cocks, primed the engine by turning the propeller, climbed up, set his switch, and crawled under the wings to pull the prop through. As he seized the polished edge, a sound—an awed murmur like the first rumble of an earthquake—reached him. A sense of impending disaster chilled him as he turned, stared at the crowd, the sky—

THERE, against the vivid blue, he saw the balloon tilting gently like a pendulum, and up her bunting-draped shroud lines ran fingers of flame. Paralyzed with the imminent tragedy, Jimmie could only stare. He watched a white pygmy figure crawl out of the basket and down its side to catch the drag rope. But the bottom of the rope was a thousand feet above the earth.

Slowly the white shape moved downward along the rope, to the end, and stopped. Like a fly caught on a vagrant strand of some malicious spider's web. The fire burned upward. A dozen burning shroud lines snapped and dangled loosely from the basket lashings. Jimmie, frozen with dread, still watched. And then the figure hanging there, with few minutes left to live, freed one arm and waved a bit of white—a showman to the last.

The crowd groaned again but Jimmie's pulses hammered and his muscles tensed.

(Continued on page 38)



You have a feeling of safety and security when you drive the new Ford

One of the first things you will notice when you drive the new Ford is the quick, effective, silent action of its six-brake system.

This system gives you the highest degree of safety and reliability because the four-wheel service brakes and the separate emergency or parking brakes are all of the mechanical, internal expanding type, with braking surfaces fully enclosed for protection against mud, water, sand and grease.

The many advantages of this type of braking system have long been recognized. They are brought to you in the new Ford through a series of mechanical improvements embodying much that is new in design and manufacture. A particularly unique feature is the simple way in which a special drum has been constructed to permit the use of two separate sets of full internal brakes on the rear wheels.

The brake construction on the front wheels also is unusual. Here the brakes are fully enclosed without the need of a leather boot or sliding joint to protect the linkage between the brake rods and the mechanism on the brake plate.

A further improvement in braking performance is effected by the self-centering feature of the four-wheel brakes—an exclusive Ford feature. This construction brings the entire surface of the shoe in contact with the drum the instant you press your foot on the brake pedal.

An example of the close limits of measurement used in manufacturing the new Ford is found in the brake drums. These drums measure eleven inches in diameter, yet they are held to within five one-thousandths (.005) of an inch—a remarkably fine limit on such a wide diameter. The plates on which the braking mechanism is mounted are of cold spun steel.

There are definite reasons, therefore, for the safety and reliability of the new Ford brakes—for their quick ease of operation—for the smooth yet commanding way they take hold at a slight pressure on the brake pedal or hand lever.

Another feature of the brakes on the new Ford is the ease of making adjustments without special tools and without removing a single part.

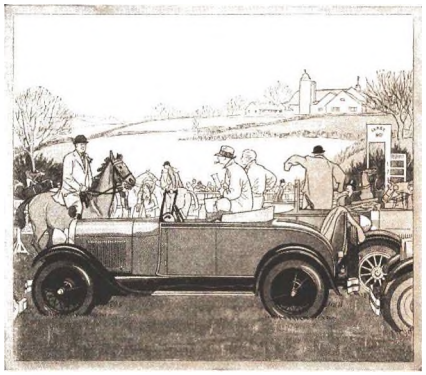
The four-wheel brakes are adjusted by turning a wedge or screw located on the outside of each brake plate. This screw is so notched that all four brakes can be set alike simply by listening to the "clicks."

Throughout the new Ford you will find this same trouble-saving simplicity of design. It is one reason why the up-keep cost of the new Ford is so low.

Ford Motor Company
Detroit, Michigan

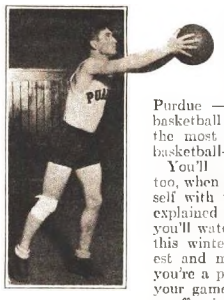
Make it a point to see your Ford dealer and talk over with him the simple little things that should be attended to for continuously good performance.

He works under close factory supervision and he has been specially trained and equipped to help you get the greatest possible use from your car over the longest period of time at a minimum of trouble and expense.



Alert and powerful is the new Ford Roadster—a car that puts a new joy in motoring. Finished in a choice of beautiful colors. Top can be raised or lowered quickly by one person. Equipped with rumble seat at slight additional cost.

Fool 'Em With Your Offense!



WHAT kind of an attack does your basketball team use? The three-man-parallel? The long shot? The short pass and pivot? Combination long and short pass cross?

In this article Coach Ward Lambert, of Purdue University, tells you what those terms mean. Coach Lambert is recognized as a master strategist of basketball. In his last ten years at Purdue his teams have won four Big Ten titles and placed second twice. They've won 120 games out of the 169 they've played. Of his 1928 championship team three players were honored with positions on the All-Conference five and two were placed on the All-Western.

There's plenty of reason why Coach Lambert's teams have ranked at the top. His own athletic record includes three years of stardom in baseball, basketball and football, at Wabash College, Indiana; years of successful high school coaching and two years of directing all athletics at Camp Taylor, Kentucky, during the war. He gets good material at Purdue — Indiana's a strong basketball state—but he makes the most of it. He develops basketball-wise men.

You'll be basketball-wise, too, when you familiarize yourself with the styles of offense explained here. If you're a fan, you'll watch your school games this winter with keener interest and more intelligence. If you're a player, you'll improve your game defensively as well as offensively because you'll be able to analyze more quickly your opponents' game and move to check it. If you're coaching—or planning to coach—you may find a new wrinkle, here, to teach your squad.

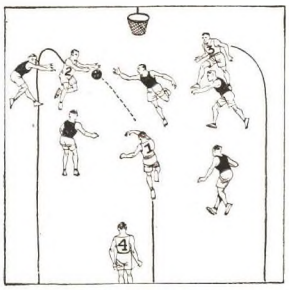
Frequently, in his explanations with each diagram, Lambert speaks of the fast break as opposed to the deliberate attack. You know what the fast break is. The other team has the ball. Suddenly one of your guards intercepts it, or gets it on the rebound. Without an instant's delay your offense gets into action. A long pass, a couple of quick short ones, and you're down in scoring territory before the other team has a chance to organize its defense. That's the fast break. It takes quick thinking, and accurate, speedy moving.

In the slow break, or deliberate play, the other team manages to get its defense set before you can advance down the floor. Such occasions occur when you get the ball out of bound, or when the other team thinks faster than you do.

In this article Coach Ward Lambert of Purdue University's Big Ten champions explains six styles of attack.

Then, perhaps, with your opponents organized and waiting for you, you must advance more warily—more slowly. Keep this distinction in mind when you study the diagrams and texts.

There's one style of attack not illustrated in the drawings. That's "Possession of the Ball." This type, used for-

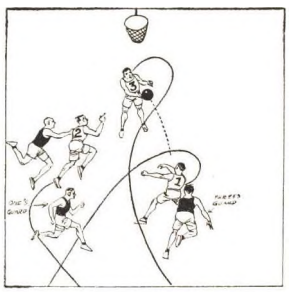


Here's the Three-Man-Parallel

Some coaches call it the "lane" offense because the two forwards and the center advance down the floor in parallel lanes. It's a simple, easy-to-learn attack. But it will succeed only if the center man—Number One—is clever at passing, quick on the pivot, and an accurate shot from the territory around the foul line. He's the key man of the attack. The weakness of the lane offense is that the two outside men may easily be forced out of bounds.

Here's how you play it. On the fast break, the three attackers scoot down the floor. They feed the ball to Number One, who must be an excellent dribbler. In scoring territory, One either shoots himself, or passing to Two and Three in the corners. On the slow break, One takes the ball to the middle of the floor and Two and Three scoot into the corners, then break out to receive a pass. Four or Five (one of the guards) comes up to assist One. From that point the play will develop as conditions require. Perhaps One will immediately pass to Two or Three. Perhaps he'll toss the ball back to the guard and dash in toward the foul circle, to receive a pass and direct the play from there. In the diagram, One is passing to Two because Two's guard is outside, leaving the forward momentarily clear.

Franklin College, Indiana, used this style of offense with great success because her Number One, Vandiver, was a star.



Short Pass, Pivot, and Block

Wisconsin, under Coach W. E. Meanwell, has made good records with this type of attack. Three or four men will advance down the floor, tossing the ball to each other at close range, and pivoting each time as they pass. By means of the pivot, the attacker turns his back upon the guard and momentarily blocks him out of the play. When executed skillfully it's a bewildering attack, especially successful against a team that guards man for man. The diagram shows you how the man about to pass has pivoted so as to block momentarily the guard following Number Three. Three, in turn, will pivot so as to block Number Two's guard and Two will drive in for a shot.

You can readily see how this swift exchange of the ball and change in direction will confuse the opponent. But it requires players who are exceptional in floor work and passing ability. And it's chiefly effective in the man-to-man defense with the opponents continually chasing the ball. (If you practice this offense, remember that blocking is illegal if the referee feels that you're more interested in stopping the opposing guard than advancing the ball.)

Long Shot Offense

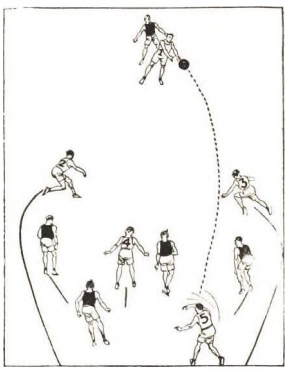
Most coaches tell you not to take long shots. "Nine times out of ten you'll miss," they say. In the main that's correct, and yet the University of Chicago piled up a great record playing the long shot game. During an entire season Chicago made most of her shots from around the foul circle—or in back of it. She was successful because her forwards were accurate at long range. But she was successful also because her opponents couldn't score. The reason is simple: by taking long shots, Chicago kept her men close to defensive territory. The other team couldn't get a fast break against her. Of course, occasionally, Chicago crossed up her opponents by driving for a close shot—a strategy that caught the opponents unawares.

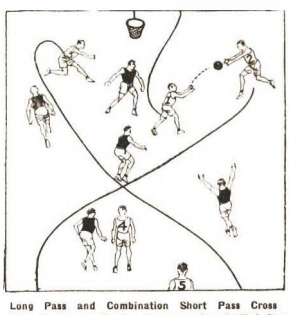
Notice, in the diagram, the excellent defensive position your men (the white shirts) are in after making a long shot. Perhaps you'll want to use this attack only when your team is ahead and you want to go on the defensive or play for a break. In any event, it requires men who are accurate at long range.

Short Pass, Change of Pace

This style of offense has been used chiefly in the East. You can play it both for a fast break and in the deliberate advance. You advance with short passes, working the ball around in offensive territory until you've drawn the defense out from the basket. Then you drive in for the basket—that's your change of pace. On the drive-in, one player passes to another closer to the basket and immediately receives a pass-back as he drives in for a close shot.

The diagram shows Two just receiving the ball from One and preparing to pass back to One who is about to drive straight for the net. That's the final step in the attack.





Long Pass and Combination Short Pass Cross

This is the attack that for years has baffled Purdue's opponents. Ralph Jones, former Purdue and Illinois coach, is its originator. The attack starts with a long pass in order to get the ball into scoring territory immediately. You break fast—give the opponents no chance to get set. The long pass, usually hooked by the back guard, goes to the center who is laid back, waiting for it. The forwards either dash straight down their sides or cross each other—the two methods can be used alternately if you wish. In scoring territory, the two forwards and the center use the short pass and drive in—at the first opportunity—for a shot.

The top diagram shows the beginning of the play. Your guard (Five) has taken the ball off the board and passed it to the center (One) who has remained back in offensive territory. The two forwards (Two and Three) are dashing down their sides. Your opponents, (black shirts), the drawing shows, haven't had time to draw back into a defense formation. They're caught flat-footed.

The lower picture shows how the play has developed with the forwards crossing. The center has pivoted and passed the ball to Number Two. Two may either drive in for a shot, or pass to Three who has reached left corner and broken out to receive the ball.

This style of play requires a back guard who is accurate at long passes and a center who is skilled in all departments of the game. It gives your opponents little time to organize after they lose the ball.

merly only by the winning team near the end of the game, has developed into a distinct strategy. The idea is to *keep* the ball, passing continually back to a floor guard if necessary, and drawing the defense out until you see a chance to drive in for a sure shot under the basket. The fault with this style is that it slows up a game. "Possession of the ball" is legitimate strategy only at intervals. If it's over-played it will ruin the driving, spectacular game that basketball now is.

In the Morning Mail

"YEA!" shouted Pluto, leaning back in his office chair and waving all four legs, as well as the end of his tail. "Yea!"

The editor looked annoyed.

But Pluto, unmindful, commenced to act in the strangest possible manner. First he rose up on his hind legs and went through all the motions of leading a yell. Then he did a back handspring. After that he started jumping on the editor's new hat and throwing morning mail letters in all directions.

"Yea!" he yapped, exhausted. "Yea, team!"

"What team?" barked the editor. (The editor is not a dog, but Pluto often makes him bark.)

"Team?" asked Pluto weakly, mopping his black and white brow with a manuscript. "Oh, I nearly forgot. Why—" He grew superior—"the All-time, All American Boy Football Team!"

The editor looked interested.

"H. A. Bowman, Los Angeles, who has probably read every athletic story published in the magazine during the past five years," Pluto explained, "has selected an honorary eleven from the football characters of the stories. And he's got a good team—a team that could beat the Army in the morning and Notre Dame after a heavy lunch."

* * *

Do you agree with Pluto, fans? Bowman has selected his stars from the following schools: State College and Hartford (in "The Pants Slapper," by Franklin M. Reck); Grandon (in "The Shouting Violet," by William Heyliger); Sheriton and Ashford (in the Sheriton stories by George F. Pierrot); Oakdale (in "Great Thing, Ge-og," by Neil Estes Cook); Arrowhead (in "A Model for the Runt," by Donald H. Farrington); Northerton and Springville (in "The Touchdown Strut," by Rex Lee).

Here's his team:

L. H. B. .....deHerrera, Sheriton
R. H. B. .....Lambert, State College
F. B. .....Brasson, Springville
Q. B. .....Goodwin, Grandon
L. E. .....Foxen, Grandon
L. T. .....Burmister, Oakdale
L. G. .....McDonough, Sheriton
C. .....Clancy, Northerton
R. G. .....Corey, Arrowhead
R. T. .....Jones, Sheriton
R. E. .....Carmody, Sheriton

Substitutes: Halfbacks—Hill, State College; Roberts, Grandon. Fullbacks—Young, State College; Carney, Hartford; Downie, Ashford. Quarterbacks—Montague, Oakdale. Centers—Young, Springville.

Read 'em over, fans. Can you beat 'em? Imagine two backs such as deHerrera, former torcador, whose agility in dodging mad bulls had made him an uncanny open field runner; and Lambert, tall, hard flash! And Brasson, the lank Kentuckian who could kick, pass, and hit the line! Goodwin, heady quarter, who had never made a touchdown himself! Do you remember the stories that made these players famous?

"Bowman gets the prize," asserts Pluto. "Five bucks from my salary for the month's best letter. It took years of reading to pick that team."

* * *

The hundreds of fascinating letters that poured in this month kept the office pup so continually on the jump that he didn't once think of fleas. One letter came from Dent Bedford, Easton, Pennsylvania, part Iroquois Indian. Bedford makes a plea for more stories by the most famous Indian authority in the world, James Willard Schultz.

"We've all read his stories of adventure on western plains," Bedford writes. "Through the night we've galloped with his dark-skinned heroes to raid an enemy camp. Under the towering crests of the Rockies we've hunted elk and bighorn with Pitamakan and Tom Fox. When Schultz talks I can hear the war drums, smell the smoke of council fires, and hear the quivering chant of gorgeously clad war dancers. He has that rare ability of giving his characters flesh-and-blood reality. Who hasn't heard famous Lone Walker speak in deep, resounding tones?"

Bedford will be glad to hear that a Schultz serial, "Skullhead, the Terrible," is due to start in a summer issue. For the benefit of newer readers, we'll tell you a bit about the author.

Back in the 'Seventies, Mr. Schultz, then in his teens, went west on a vacation to shoot buffalo. For a summer he roamed the plains with the Blackfeet Indians. When fall came he couldn't bear the thought of returning to civilization. He stayed on. He was adopted into the Piegan tribe. He hunted with them, fought with them, and eventually married an Indian girl. For thirty years, he lived in the open and only when civilization conquered the plains did he return to the ways of the white man.

Mr. Schultz's son, Lone Wolf, is one of the best-known painters of Indian life. Mr. Schultz himself has brought to AMERICAN BOY readers, in an incomparable series of stories, the true life of the plains Indian.

* * *

Victor Bovee, Sioux City, Iowa, explains interestingly why he wants Mark Tidd back in the United States.

"We've almost forgotten the pies and cakes that Mrs. Tidd can make," he mourns, "and Mr. Tidd no longer brings home fly swatters from the store instead of bread. And where is Zadok Biggs, the tin peddler? Such touches as these are the things that make us ordinary fellows feel as though the adventure were happening to us. Please bring Mark Tidd home!"

Pluto received a scad of mail, this month, from old-time subscribers. W. I. Gattis, Winston, Georgia, who has taken the magazine for fifteen years, invites the office pup to Georgia for a watermelon feast. Gordon S. Denlinger, Gordonville, Pennsylvania, has read every issue for eighteen years, and in that time thinks Mr. Heyliger, perhaps, stands out as the leading author. Floyd S. Field, Boys' Club director of the Palama Settlement, Honolulu, is a seventeen-year subscriber. He's hoping that one of his boys will win a trip to the International Airplane Model Championships at Detroit, next June.

But W. W. Porter, Englevale, North Dakota, takes the prize. He can remember reading the magazine for twenty-eight years, and his mother insists he's read it thirty! In other words, he's read every issue since the first one—that of November, 1899.

"Don't neglect George Hall, Lawton, Michigan," horns in Pluto. "He writes that he's fourteen years old and has read the magazine for fifty-seven years!!!"

* * *

Our farthest-away correspondent, this month, is Flemming Kiorbae, Copenhagen, Denmark. Kiorbae has built nearly every kind of model plane that has been described in the magazine. The dimensions have caused him no end of difficulty because he's had to convert inches into centimeters!

"I like the way you tell, at the beginning of each installment of a serial, the events of preceding chapters," writes one reader. "You don't call it a synopsis, but work in the necessary facts so smoothly that a fellow can get right into the story."

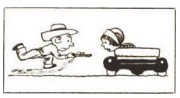
Another reader has just the opposite idea. "Why don't you carry a synopsis?" he asks. "Label it 'synopsis' so that a reader can tell that he's reviewing the events of preceding chapters."

Pluto and the editor, after lengthy consultations, have decided to ask you fans to settle the question for us. Turn to the two serials in this issue. "The Last Wanigan," you'll notice uses our present style of giving the events of earlier installments. "Winged War" has an introduction plainly labeled, "Synopsis of Preceding Installments." Which method do you prefer? Let's have opinions—lots of 'em!

"I read the announcement of the Burroughs Adding Machine prize contest, in the October issue," writes an Ohio reader. "Believe me, I'm going after a hundred dollar first prize. I've sent to the company for the illustrated booklet giving the history of figures and it's mighty interesting. One thousand dollars in prizes—and all I've got to do is pick five key words from Burroughs ads in the magazine and write a short essay. Here goes!"

A good chance for you to win one of 122 prizes, fans! Turn to page 37 and read the announcement.

"In these winter days," grins the pup, "I like to read about heat. Ben Kimbel, Fort Smith, Arkansas, says you can cook food in the shade, down there. And if you order ice cream, in your auto, it's melted by the time it's brought from the drug store to the curb!"



* * *

John Abrams, San Francisco, wants the following things in the January issue: a Wally Radnor story, Jimmie Rhodes story, Russ Farrell, and Sheriton; and he wants his name mentioned in the Morning Mail column. He gets all except the Radnor story.

"My sympathies to Herman Fussler, Iowa City, Iowa," murmurs the pup. "His dog Pat got run over by a car."

"Here's a chap," smiles the ed, "who isn't interested in flying and football stories. He lives on a farm and all the flying and tackling he gets consists in flying about the farm and tackling his jobs."

"Kenneth Watkins, Winfield, Kansas, who has been sick in bed for two months, has received about ninety back copies of the magazine from a friend. He's read every one of 'em." This from Pluto.

"Gordon E. Meyer, Yorktown, Texas, likes 'Dodo Birds,' by Frederic Nelson Litten," contributes the ed. "Meyer has often driven past the flying school at Brooks Field and knows the locale of the stories."

* * *

"Just listen to this," breaks in Pluto. "Here's a flea cure from Jack Shannahan, Sparrow Point, Maryland. A cure used on the royal dogs of Egypt. 'Mix well two cups of pulverized sulphur and water. Then add two drops of hydrochloric acid. Cut twelve onions into bits and add. Put the ingredients in a gallon of salt water. That sounds like it will either kill or cure. Excuse me. If I don't come back you'll know why."

And as Pluto goes off to battle with the fleas, we'll ring off. Flood us with letters. The best one each month wins five dollars and Pluto will send a postcard acknowledgment to every writer. Don't forget those votes on the two types of synopsis in this issue!

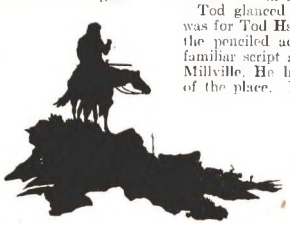
The Last Wanigan

(Continued from page 23)

clean as a whistle, if we can only find him."

"I'm reserving judgment," said Judge Hand, "but until he makes an appearance he can't complain if people connect him with the explosion."

Tod listened to this conversation, feeling greatly discouraged and very helpless. He had been a hero, people said, in making the first move that led to Nagel's capture, but how little that meant, now that it was all over. How much more difficult things he would dare in an attempt to find Ed Button and put him right before the world. But there was nothing to do but wait, and waiting was dismally dull. It seemed that everything accomplished was merely the prelude of greater things to be done.



On the porch Tod met his mother, in a raincoat and galoshes.

"I brought the mail," she said, kissing him damply. "It will save you a trip to the village. Isn't it nasty weather? We'll have our lake in another week if this keeps up. Here's one for you."

She handed him a letter.

Tod glanced at the envelope. It was for Tod Hand, right enough, but the penciled address was in an unfamiliar script and the postmark was Millville. He had never even heard of the place. His mother went into the house and he sat down in the swing to read the letter. It was a penciled scrawl on dirty paper; Tod turned it over, saw the signature,

(*Continued from page 31*)

and leaped to his feet. He could hardly restrain a shout.

Dear freind Tod (ran the laborious script) i dont know if you will read This but here goes anyhow. 1st. i am not the scowndrill you think 2nd. plees dont tell Mrs Button she wood only Worry you know how wimmin are i swear i never knew there was dinamight in the wanygan that Night and when it blue up in my face i thought the Dam had fallen on me.

i am inosent but figger i got to lay low untill i can square myself and that will be right soon i hope i am all Right but mad at a certin party i just herd Nagal is in jail now Tod can you and will you do me a grate Favor.

Here is whats got to be done and done mighty quick you know the jackpine where the Hodag swang if you have forgot you can tell the one i meen by a peece of wire still on the limm go dig there Tod right away for goshes sake before the blame lake rises and sinks the hole outfit Dig between the roots pinting S.W and S. E. and down 2 feet you will find a canvas bag keep it for me and DONT SAY NOTHING TO NOBODY i figger i may need it bad.

i am all Right and will come out when i can come clean beleeve me i am inosent no matter what a lot of waggin Tungs may tell you hurry over and dig before its to Late and i will be grateful all my Days.

yrs truly

Ed Button

Tod crammed the letter hastily in his pocket as Old Man Lacey came out to board his flivver.

"Good-by, Tod," he boomed. "When are you and Johnny coming down to visit me?"

"Soon as school's out," answered Tod. "Say, Mr. Lacey, where's Millville?"

"Millville?" echoed Mr. Lacey. "Millville's on the edge of the *matto grosso* country on the lower Chippewa, and it's so called because there's never been a mill there and likely never will be. It's on the stickiest mud road in Wisconsin; took a yoke of oxen to haul me out the last time I was through there. The branch railroad runs through there, and when I say through I mean through; nothin' stops but the milk train. They use calendars for time-tables. Yes, I know Millville; I know the whole population—he's a nice feller, too. He runs the store and the post office and he's the station agent; I expect he'd elect himself mayor if there was any salary attached to it. What in the world made you ask about Millville?"

"Oh, nothing," said Tod lamely. It would be dark in an hour, and he was thinking fast.

"This weather!" complained Old Man Lacey, as he climbed into the creaking *Firecracker*. "It's good for selling the tonic, but at the same time it's mighty bad for anyone that hasn't got webfeet. Thank goodness I live in a house that will float; even with the dam closed, they're lettin' enough water through so fast that it's high enough so the catfish are stealin' my chickens."

Tod laughed absent-mindedly.

"Well, so long, you cradle-rocker," chuckled Mr. Lacey, as the scarlet car shot forward. "Keep your chin up and we'll get old Ed out of this yet."

There was no time to be lost. Tod reentered the house by the kitchen door. Ingrid, the cook, was busy with supper.

"When you call them to the table," directed Tod swiftly, "I want you to tell my mother that I had to go over to Thornapple, and couldn't wait."

"You don't want no supper!" exclaimed Ingrid in amazement.

"I can't wait," insisted Tod. "It's important. Tell them it's nothing to worry about—just something I've got to attend to right away."

He was off to the barn, leaving Ingrid gaping after him, certain that he must be ill or crazy.

Tod carried the canoe out of the barn almost guiltily. It was detestable sneaking off this way without a word to his mother, but speaking one word would have led to explanations, and Ed had begged for secrecy. Down the side of Badger Cooley he strode, the canoe resting easily across his shoulders, drenched to the waist by the showering drops from every bush he touched. In the bay he found the water eight inches above yesterday's mark. Swinging the canoe in, he weighted the bow with a fifty-pound rock and shoved off for Thornapple Fork with long slow strokes into which he put every ounce of his weight and strength. He must get Johnny, that was certain. Ed had written, "don't say nothing to nobody," but that injunction did not apply to Johnny. The two of them were partners in this to the finish.

The rain had ceased and the low clouds, rising like a curtain in the west, revealed a narrow strip of incredible brightness that bathed the lake and its rain-washed shores with an unearthly golden brilliance. A good omen, thought Tod, exulting as he drove the canoe down the shimmering path of radiance; the weather had broken, the world was brighter, and the time for action had come.

PAST the cabin he drove his paddle, scarcely daring to look at the shrunken island that had been Ed Button's domain. Surely the water could not rise enough in the half hour it would take to get Johnny to make their task impossible. And if the roots of the jack pine were already submerged it would be a two-man job, and no easy one, for the river was still running ice water. Up the widening bay where Thornapple Fork had lately rippled over its sandy bottom, over the old logging bridge Tod sped onward until the sky-blue house of Topsy Caribou loomed ghastly in the swiftly fading light. Tod gave a long halloo and his heart sank. It was Saturday night; suppose Johnny and his aunt had gone to the village! But an answering whoop reassured him, and Johnny appeared, running down the path to meet him.

"Jump in!" commanded Tod. "And throw out that rock. We've got work to do."

Without a question Johnny obeyed and the canoe was turned about and off on a bee-line course for the cabin.

"I got a letter from Ed," announced Tod.

"That's good," said Johnny.

"We've got to dig."

"All right." Johnny was never talkative in action.

In total darkness they beached the canoe at the cabin doorstep. The bottom step had floated away.

"We've got to go along the ledge where the hodag was," said Tod, "and build a fire and find the jack pine—by gosh! I just thought—*that's* what Nagel was after the day we caught him. Remember? He was asking Old Man Lacey, 'Is dis a jack pine?' and the old boy thought he was studying botany."

They rummaged in the pitch blackness of the cabin for dry stuff for their fire and in a few minutes a blaze was started on the spot that Johnny picked out. The half-breed's sense of location was unerring; as the broken oars and the remnants of the barrel-chair burst into flame and lit up the crest of the ridge they saw the tree, with a fragment of broken wire still wound about its upper limb. And the trunk was under water.

"Just in time," said Tod, stripping off his clothes. "It looks to be about three feet deep there. What do you say?"

"A good three feet," estimated Johnny, dipping his toe into the water gingerly, "and cold, too."

THEY piled the fire high with wood and went to work in the light of it. The lake at the base of the jack pine proved to be waist-deep and so bitterly cold that they could work only in shifts. While Johnny pranced around the fire, naked as one of his primitive forbears, Tod would prod swiftly at the base of the tree with an old axe handle and dive now and then to burrow with his hands like a muskrat. Two minutes of this and he would splash frantically ashore and race around the fire, slapping himself to bring back the circulation to his numbed hands and feet, and Johnny would glide into the icy water and carry on.

"The hole *feels* two feet deep," said Johnny between chattering teeth, as he clambered to the bank after his third trip.

"This is the seventh try, in all," said Tod, "and seven is my lucky number. Come on now, Alec."

He made a shallow dive right to the base of the trunk and disappeared entirely in the turbid water.

"Got it," he cried, reappearing at the surface, "and it weighs a ton."

Johnny waded in to help him and together they dragged the dripping prize to the fire. It was a canvas bag weighing sixty pounds or more. Before indulging their curiosity as to its contents, however, they exerted themselves at the more urgent business of getting dry and warm. The bonfire and vigorous calisthenics soon had them glowing, and they dressed and knelt to open the sack.

"It's money!" exclaimed Johnny, awe struck.

"It *ought* to be, to be worth that much trouble," said Tod, as he loosened the sodden drawstring. In the firelight there poured out a sudden shower of coins, gold and silver, shining on the pine needles at their feet. In silence they counted it; it was one thousand dollars.

"No wonder he wanted it bad," said Tod. "It's every cent of the money they paid him for flooding his place. But what a ninny he was to leave it *here!*"

"It was *safe* enough."

"And it proves that when he left here, after the explosion at the dam, he expected to come back. A man isn't going away and *forget* a thousand dollars."

"But how did Nagel know about it?"

"By golly! That looks as if they were in cahoots," admitted Tod. "But Ed says in his letter that he's innocent, and I believe him. There's more to this business than we know."

"Sure," said Johnny. "Ed's all right."

Tod sprang to his feet.

"It must be late, and Mother and Grandpa'll be sitting up for me sure—I left without supper, without saying a word. Come on, Johnny, you stay at my house to-night; I'll catch it lighter if you're with me when I come in."

"All right," assented Johnny, "but I sort of hate to leave this fire; it's a mean cold night."

"Come on," urged Tod. "I expect Grandpa'll make it hot for us."

Chapter Six

JUNE came, and with it more rain than the oldest of the old-timers could remember. The lake stretched its length from Minneconsin dam to a mile above where the Porcupine rapids had roared over the black rocks, and there was still enough water flowing over the spillway gates to keep the lower Chippewa at flood stage. Down at the head of navigation Old Man Lacey had sold his chickens in disgust and threatened to cut his shanty boat loose and cruise down the river until he found a climate that wouldn't mildew his whiskers.

School was out. Tod and Johnny were free to explore the ever changing shores of the lake and plan their trip down the river, to take place when and if the weather ever broke fair. Nagel had not yet come to trial and nothing further had been heard from Ed Button. Tod had not dared to start a hue and cry by writing to him at Millville, but he resolved to investigate in person, once he and Johnny were down on the lower river in what Old Man Lacey called the *matto grosso*. Ed's thousand dollars lay buried three feet deep in the center of Mrs. Hand's flower garden, a spot in full view from Tod's own window, and known only to Johnny and himself.

On a brilliant morning that seemed supernaturally clear and sunshiny by contrast with the dour days that they had been enduring Tod and Johnny were out by the barn engaged in waterproofing a tent, when the *Firecracker* sputtered into the driveway with Old Man Lacey at the wheel, booming like the battleship *Oregon*.

"By the Great Horn Spoon!" he bellowed. "All our work undone! By that suet-headed dep'ty sheriff at Thornapple Fork."

"What?" exclaimed Tod, springing to his feet.

"Nagel's loose, that's what!" shouted Mr. Lacey. "Cut his way out of the jail last night and flew the coop, gone galley west while that dough-brained dep'ty was snoring in his house fifty yards away.

By jiminy! I almost hope he dynamites the dam in earnest now—it would serve those people right. And what do you think of this?" Mr. Lacey grew purple with indignation. "This morning, as soon as those engineers learned he'd broken jail, they went squawkin' around to the company, and *now*, by the pink whiskers of St. Elmo! the Twin City Power and Light Company has posted a thousand-dollar reward for his capture. Can you beat *that?* Not a word about reward when we *had* him captured, but those lads are scared, now he's loose again. It makes me so mad I'd be real pleased if he blew 'em all so far it would cost 'em sixty-eight cents to send back a postal card."

"Do you think Nagel will try it again?"

"Not him," said Old Man Lacey. "He's through in *this* valley, and he's smart enough to know it. But to think of his gettin' away before they made him tell about what he did to Ed Button. I hope that dep'ty sheriff gets hangnails."

"Maybe Ed'll come out, now that Nagel's gone."

"Maybe so," said Mr. Lacey. "I thought of that. But it gripes me to think of 'em lettin' that dynamiter get loose. That dep'ty hasn't got enough sense to pound sand in a rat hole. It's put me so out of humor that I can't enjoy the first dry day we've had since Ben Hur put on long trousers."

"When can Johnny and I come down to your place?" asked Tod.

"To-day," replied Old Man Lacey. "I was just goin' to speak to your mother. I've got to go up to Holcombe now to massage Mr. Swenson's porcupine, but I'll be back this afternoon, and we'll portage your outfit down to the head of navigation. It may be that we'll have some good weather, though I doubt it."

Tod thought of Millville. Once he and Johnny were footloose with the canoe, they could scout around the heavily wooded islands of the lower river where Ed Button might be hiding. Perhaps by this time Nagel had rejoined him. Tod shivered at the thought.

IN the afternoon, with the canoe lashed to the top of Mr. Lacey's crimson chariot and the back seat piled with their blanket rolls and duffle bags, Tod and Johnny started with their host for his shanty boat below Eau Claire.

"Have a good time," said Tod's mother, adding to Mr. Lacey, "I hope they won't bother you too much."

"*Bother* me," roared Mr. Lacey. "The company of my fellow man is the breath of life to me, ma'am; I'll enjoy this trip twice as much as they will. Don't be surprised if you get word from us in New Orleans."

"Steer clear of dynamiters," advised the judge, with a chuckle.

"He'll steer clear of me," said Old Man Lacey, "now that there's a reward offered. Money has always avoided me like the plague."

The *Firecracker* clattered off on its twenty-five mile drive down the valley.

"I feel right cheery," announced Mr. Lacey to his passengers, "now that they've got the sun out again. The weather we've had this spring was beginnin' to make me feel as soggy as a week-old flapjack."

"It's going to rain some more," said Johnny with conviction. "Look at those thunderheads down south."

"Oh, let me alone!" implored Mr. Lacey. "I was tryin' not to notice 'em. You remind me of Big Olsen."

"Who's he?"

"He was trouble-hunter at Paul Bunyan's camp on Big Onion, the year of the two winters. One of his legs was shorter than the other; so he could only walk in circles. His job was to travel among the crews and help out when they got in any jam; they say he's the man that dug the Red River so's Paul could log off North Dakota, but I don't know's it's true—I wasn't up there that year. This Olsen always looked at the dark side of things; trouble was never so bad, he used to say, but what it couldn't be worse, and it usually *was* worse. He could prove there was ways of losin' money runnin' a mint."

"Did Paul Bunyan ever log around here?" asked Tod.

(Continued from page 33)

"Sure," said Old Man Lacey. "He was here the year the rain came up from China. He used to pasture his big cow, Clara, right where the Northwestern freight yards are in Eau Claire. That's the way the town got its name. Most people tell you it's a French name—they think it's more high-toned—but *I* know: the loggers comin' down river to camp in the cool of the evening used to hear Mrs. Bunyan callin' the cow, 'Oh, Clara, Oh, Clara,' and that's the way the name was invented. She was a great cow, too; gave twenty gallons of milk morning and evening. If you don't believe it I can show you the pail they milked her in."

"This must have been great country then," said Tod, as the flivver clattered down the main street of the town.

"Well you may say it," concurred Mr. Lacey vehemently. "They call this progress, but give me the days when Paul could send Elmer, his moose-terrier, out of camp after breakfast and have moose steak for dinner. Elmer was a great dog; he'd go after anything. And that's the way he got killed. When the first railroad train ran up to where Chippewa Falls now stands, Elmer thought it was some new kind of animal and he tried to bite the engine."

OVER the brimming river they crossed by a new concrete bridge and were soon bowling along through the pleasant farmlands of the widening valley. Two miles below the town Old Man Lacey turned off the main highway and followed down a winding lane that led through the woods to the river bank where his shanty boat was moored.

"Here we are," he announced, stopping the car with a suddenness that nearly threw the boys over the windshield. "The old ark's afloat for the first time since I dragged her up here ten years ago."

It was a scow, twenty feet by eight, housed over except for narrow decks fore and aft, and moored by two hempen hawsers to a huge basswood tree that overhung the bank. The house was painted a brilliant scarlet, evidently out of the same pail that led many people to believe that Mr. Lacey's car belonged to the fire department, and the owner had further contributed to the unsailorlike look of his vessel by hanging flowering plants in pots from the eaves.

"Come aboard," said Mr. Lacey hospitably. "You'll be drowned out if you try to camp to-night. Johnny's right as a weather prophet; the heavens are goin' to open up again. I never *saw* such a summer."

Great piles of cumulus clouds towered pinkly in the setting sun and the air was ominously still. Tod and Johnny lugged their duffle down the narrow gangplank and secured the canoe, keel up, along the ridgepole of the shanty. Within the cabin house was a region of fascinating strangeness; against one wall was a bunk, with bookshelves within easy reach, a ten-gauge shotgun on hooks, and a phonograph which rested on two cases of Lacey's Hemlock Tonic. Opposite stood the stove and pantry shelves, two split-bottom chairs and a narrow table that folded against the wall when not in use. The walls were solid masses of pictures, mounted fish, snakeskins, testimonials to the merits of the tonic, and all the flotsam and jetsam of Mr. Lacey's long life on the river. He had made the most of his wall space by putting the windows in the roof; the two skylights were the only nautical feature of his floating abode.

"Which is port and which is starboard?" asked Tod, whose only knowledge of seafaring life had been gleaned from the pages of *Moby Dick*.

"That depends which way she's goin'," Old Man Lacey informed him. "The last time I cruised in her she mostly went sideways; so that would make the front porch the starboard and the back porch the port. But I never figured it was important enough to hang out red and green lights—the traffic doesn't warrant it."

"Gosh!" said Johnny, examining the shotgun. "Look at that cannon."

"That!" exclaimed Mr. Lacey contemptuously. "That little toy! You ought to've seen Paul Bunyan's gun. Took a dishpan full of powder and half a keg of railroad spikes to load it. He used to shoot ducks so high in the air that they'd spoil before they hit the ground."

As darkness came on Mr. Lacey busied himself getting supper.

"I'd like to make you some soft-nosed flapjacks," he said, towering over the stove, "like they used to have at Paul Bunyan's the year of the blue snow, but to make 'em right you've got to have a hot fire of prune pits. These oil stoves are a modern convenience, but you can't use 'em for cookin' in the grand style."

"Where did Paul get the prune pits?" asked Johnny.

"From the prunes his loggers ate, of course," said Old Man Lacey. "There used to be a heap of them outside the cook house as high as the sawdust pile at a sawmill. The chipmunks that fed on 'em got so big they ate all the wolves, and I heard that a man came up to Sugar Lake years later, a greenhorn hunter, he was, from Chicago, and shot one of 'em and had it stuffed. He thought he'd killed a zebra."

SUPPER was served at the table against the wall, while the phonograph rendered music for the banquet of beef stew (Mr. Lacey called it humgudgeon soup) hot biscuit, green onions (they build you up physically, as their host said, but they tear you down socially), elderberry preserves, and pie. When the meal was over the boys washed the dishes while their host took his ease with a pipe of tobacco. The night had come on black as Erebus and the thunder in the south was louder at every succeeding roll.

"I wouldn't care *what* the weather was," said Tod, "if I lived in a place as snug as this."

"A boat's the proper rig," agreed Mr. Lacey. "If it rains much more, I predict they'll be real popular."

"Did Paul Bunyan ever live on a boat?"

"Not after he grew up; he'd have been too cramped on any boat. But when he was a baby they built him a floating cradle on Lake Superior. When he rocked himself it raised such waves that the lake overflowed its banks 'way down at the east end; that's what caused the falls at the Soo. They're there yet."

"I thought Paul *dug* them, so as to float his logs down to Detroit."

"Whoever told you that had his facts mixed," said Old Man Lacey. "They were probably thinkin' of Puget Sound. Paul helped Billy Puget dig that; they used dirt-throwin' badgers and—"

A deafening thunderclap interrupted him.

"That was close," he remarked. "If they want more water for their lake up at Minneconsin that ought to fetch it."

The rain and the wind came at once, reverberating against the sides of the cabin like volleys of shot.

"How'd you like to be out in this?" asked Johnny.

"If this is camping weather," said Tod, "I am the crown prince of Duluth."

The roar of the storm increased, making the light and warmth of the cabin doubly inviting. Tod had just started his favorite record, Ka-lua, on the phonograph when he noticed Johnny, with a strange expression on his face, tipped back in his chair with his hands clenched tensely, his gaze fixed tensely on a framed picture hanging on the opposite wall.

"Tod!" he said sharply, in a low voice, without moving his eyes from the picture.

"What's up?"

"Don't look up!" said Johnny evenly. "Don't make any sudden move, either of you. In the glass of that picture I'm looking at I can see a reflection of the skylight, and there's somebody looking in."

"What!" breathed Tod, keeping his eyes on Johnny only by sheer will power.

"Are you seein' things, Johnny?" whispered Old Man Lacey. But he didn't look up.

"There's someone on the roof," said Johnny slowly, his eyes riveted on the picture, "and it's Nagel!"

(To be continued in the February issue of THE AMERICAN BOY.)

The Brass Candlestick

(*Continued from page 13*)

was a heavy stoop to his lean shoulders, and he gave vent to dry, timid coughs. The detective lost no time in getting down to the point.

"I'm interested in that little house over in the gas house district—the one in which Williamson was murdered," he said. "Mr. Stone advises me that it would be a good investment."

"But it isn't for sale," replied the clerk.

"How about renting or leasing it, then?"

"It's not on the market in any way, Mr. Tierney."

"Who owns it, please?"

"Mr. Vollmer."

"But wasn't it the home of Williamson?"

"Yes, sir. But it was owned by the incorporated firm of Williamson and Vollmer. Mr. Vollmer proved before the public administrator that he had bought a controlling interest in the firm just before Mr. Williamson's death."

"Public administrator?" repeated Tierney. "Didn't Williamson leave a will?"

"None that anybody knows of."

"You are sure about that?"

Robinson showed fright.

"Just tell the plain truth, Mr. Robinson," urged Stone. "You have nothing to fear from Vollmer or anyone else. I'll take care of you. I know you are thinking of your job."

"Yes, sir. I have a lot of people dependent on me."

"How about the will, then?" asked Tierney.

"I heard Mr. Williamson speak of a will but never saw one. There was a belief in the office that as neither of them had families each had made out a will in favor of the other. They never thought of anything but money, sir."

"Then Vollmer got all the property by the death of his partner?"

"Yes, sir."

TIERNEY'S little eyes seemed to be boring into the brain of the frightened clerk as he leaned over the desk and held out the message he had found in his Christmas book.

"Why did you send me that? I'm not in real estate. I'm the detective Tierney you read about in the papers at the time of the Williamson murder."

Robinson slumped in his chair, his eyes wide with fear.

"Come now," urged Stone. "You have nothing to fear if you tell the truth, Mr. Robinson."

"I c-c-can't tell you," whispered Robinson. "I really don't know anything."

"Robinson, you are afraid of Vollmer?" questioned Stone.

"Yes, sir. He has me mortgaged down to my shoes. If he turns me out, my mother and my sister and her children will land in the street."

"Don't worry, my friend." The rich man's voice was assuring, comforting. "I need a good bookkeeper in my office here and I'll start you at seventy-five dollars a week. I know you are a hard worker."

"Start on that amount?" gasped the poor fellow. "I only get thirty-five a week."

"Then you come with me. Forget Vollmer. Tell what you know."

"Go ahead," urged Tierney.

The clerk swallowed, and began: "I was working late the night of the murder and a telegram came for Mr. Williamson. I called him on the telephone and he told me to come to his house with it. He never allowed anyone to read his telegrams or open his mail. Neither of the partners did. Mr. Williamson had disconnected the door bell battery at his house years before so as not to be annoyed. He told me he would leave the front door unlatched. I hurried to his house. It was after ten o'clock. As I entered, I heard a heavy voice cursing. A big man staggered into the hall. He was terribly drunk but he managed to get out to the street. I noticed his necktie trailing on his flannel shirt. It fell to the floor."

Robinson began trembling violently. After a few moments he resumed: "I felt that something terrible was happening and remained in the hall near the door. Then I heard a thud and a groan. There was no light in the hall—Mr. Williamson was very economical. I could see the heavy curtains cutting off the front room from the rear room and they began to move violently. Then a hand appeared between them and then the other hand. One hand held a brass candlestick. It looked like the hands were cleaning the candlestick with the curtain. I became faint and hurried to the street, closing the door softly."

"Take your time," soothed Tierney. "Take your time, son. Just think back carefully. Did you get a glimpse of the man wiping the brass candlestick?"

"Only his hands."

"Were they lean hands, weak hands, strong hands, fat hands?"

"Lean."

"Was there a broken or bent finger or a scar?"

"No, sir."

"No identifying marks at all? Were they Vollmer's hands?"

"I—I don't know!" There was anguish in the clerk's voice.

"Do you suspect it?"

Robinson, under the spell of Tierney's boring gaze, nodded.

"Not much to go on—a suspicion," muttered Tierney. "But if we can get Vollmer down to that house, something might happen." He turned to the clerk.

"The house hasn't been disturbed since the murder?"

"No, sir. We don't even dare mention it to Mr. Vollmer."

Tierney adjusted his derby. "Do you want to come along, Mr. Stone?" he asked.

"Where, Mr. Tierney?"

"First, I'll have headquarters send their best finger-print man to Williamson's house. There might be a finger print on the curtain—the stain of blood lasts a long, long time. Then we will visit Mr. Vollmer and let him take us to that house."

"I'm afraid," sighed Mr. Stone, "that we'll not discover the slightest bit of useful evidence."

JACOB VOLLMER'S rusty frock coat flowed from his narrow shoulders like a shroud, the tails falling over the arms of his office chair. From beneath a high, heavily veined forehead, two small eyes in skin of dirty parchment color searched the world for an easy dollar. He showed no surprise when Robinson ushered in Tierney and Stone.

"I'm from police headquarters," explained Tierney, flashing his badge.

"I suppose it's about that choked sewer—more complaints, eh, from the health department?" His laugh sounded like the crackling of dried twigs thrown in a fire.

"Oh, no," said Tierney easily. "I just thought you might want to trot over to the Williamson house with me."

"It's not for sale, detective."

Tierney shifted slightly on his large feet. "Come along," he repeated.

"You'll pay for the taxi?" Vollmer asked.

"Sure. And the city will pay for your lunch and dinner."

Jacob's little eyes wandered over the room restlessly. "I don't know what you want," he snapped. "But I'll be glad to go with you. Why shouldn't I—why shouldn't I?"

Tierney began to wonder if he had enough on Vollmer to make the trip worth while.

"Well, I'm ready." Jacob rummaged in the right-hand drawer of his desk and placed something in the rear pocket of his trousers. "I have a deed to deliver on the way back," he said in explanation.

In the taxi the real estate man chuckled in the face of his clerk and rubbed his dry hands together. Tierney noticed a stone on the third finger of his left hand, glistening like the eye of an excited cat. A green stone.

"I can't understand why you're coming, Robinson," Jacob cackled. "You took an extra hour for lunch, and now you come on this trip!"

"Mr. Robinson is going to work for

(Continued from page 35)

me," informed Stone. "I'll take care of his debts."

"Such kindness! Such kindness! But here we are. Maybe I will sell the place."

Tierney purposely allowed Jacob to precede him down the hall. Jacob and Mr. Stone walked into the front room. Tierney held Robinson at the entrance to the room.

"I might buy this house," Mr. Stone said interestedly. "Is it in good condition?"

"Judge for yourself," cackled Jacob, leading the way to the rear room. "I ain't urging anybody."

A heavy-set man had entered the hall and was now by Tierney's side. The detective turned and recognized Wallace, head of the bureau of identification.

"The boss himself," Tierney grinned in greeting.

"Yep, Jim. What's up?"

"Wait here a minute," whispered Jim, and walked casually just inside the room. Robinson at his side. At that instant, Jacob reached the heavy curtains separating the front and rear rooms. He put out a hand to draw one curtain aside and let Mr. Stone through. The pair went through and for an instant only Jacob's hand showed on the heavy folds. The clerk, at Tierney's side, gave a stifled gasp.

"I remember now," he choked. "I remember that stone—that green stone on his left hand. Same stone."

Tierney turned like a ponderous cat toward the clerk. "Did that hand—four years ago—have a green stone on it? Jacob's ring? Why didn't you tell me before?"

"I—I didn't remember! I was too scared. I tried to forget it all! But now I know it. And there was blood on the hand!"

The clerk was almost screaming.

"Wallace," grunted Tierney. "Get the old bird's finger prints. And let's look over that curtain."

The round detective strode forward with surprising speed, grasped the curtain, and shook the dust out of it. He didn't notice Jacob staring at him with gleaming eyes.

"Here we are, Wallace," announced Tierney joyously. "Get these—a forefinger, a thumb and a smudge." The two detectives studied the marks carefully under enlarging glasses.

"Almost perfect," began Wallace, when Stone and Robinson uttered a cry together. Jacob Vollmer had leaped through to the hall and was trying the front door, which Tierney had locked behind him. The old man turned and darted up the stairs, Tierney after him. Wallace jumped through a window to watch the rear of the house.

A door upstairs slammed, the house echoing the crash. There was another crash, sharper and more stunning. Wallace heard it and climbed back in the window as Tierney came down the stairs.

"He saved the courts a lot of work," said Tierney briefly.

"Dead?" gasped Stone and Robinson.

Tierney nodded. Then he watched patiently while Wallace compared the finger prints of the suicide and those on the curtain. "How about it?" he asked.

"The same," replied Wallace.

"Good news for Mrs. Bright and her two kids," Tierney grunted happily.

The round detective meets an old acquaintance in next month's Tierney story.

Build the High-Climb R. O. G.

(Continued from page 26)

1-32 x 1-16, balsa struts 1-32 x 1-8; they should be ambroided in place 1 1-4 inches from the front end of the motor stick, as shown in the drawing for the wire gear. Make two small axles of wire bent to L-shape, and cement these to the struts to protrude to the sides. Slip the wheels on them, and put drops of ambroid or hubs made of tiny pieces of balsa on the ends to hold the wheels on. Since these axles are stationery, the wheels must turn.

Fiber wheels are furnished in the League kit. You can make wheels of thin balsa, 3-4 inch diameter, or of paper. The paper wheel is a very flat cone; from a circle of stiff paper a little larger than 3-4 inch in diameter cut a segment like a narrow piece of pie, then glue the two edges together. These are excellent on the split landing gear.

YOUR propeller is carved from a balsa block 3-8 x 3-4 x 5 inches. Page 7 of the Manual gives you details of the job. Remember that a prop should be perfectly balanced, and that its blades should be no more than 1-32 inch thick.

Be sure that the propeller shaft is perfectly straight so that the prop will run true. Hook up the propeller and the fuselage as shown in the drawing. Tie the ends of a rubber motor and attach it. Now you're ready for the wings.

Though the three wings are of different sizes, they are built in exactly the same manner, with the same dihedral angle. So you can split from your flat balsa strip a piece wide enough for six wing spars, and mark it where you want to cut it later (both for width of the spars, 3-32 inch, and for the length—two of 12 inches, three of 11 inches and one of 10 inches). Remember that spar length should be measured from the center to the ends—that is, spars should be 6, 5 1-2 and 5 inches in each direction from the center. Bend the piece to the proper angle in the manner suggested by the Manual, then split off the separate strips. Cut and sand down the cross ribs—they come from the flat balsa piece also. Then ambroid the pieces together and cover the frames with Japanese tissue.

Add the wing clips to the high-climb monoplane wing, and that part of your job is done. Better give the plane a try and yourself a rest before going on with the final work!

The biplane wings have "positive stagger"—that is, the upper and larger wing is set ahead of the lower. Positive stagger, you've noticed, is usually employed on big biplanes. It throws the greater part of the load on the upper wing, and increases the efficiency of the two wings.

The "gap" or distance between wings is 1 3-4 inches. Don't make it any smaller—if you do, you won't be able to get the finished motor stick in between the wings!

Cut the ends of the balsa struts, pieces 1-32 x 5-16 x 1 3-4 inches, at an angle. To get this angle correct, make a model of the strut on paper. Draw two lines 1 3-4 inches apart, and connect them with two lines 5-16 inch apart, the connecting lines 1-2 inch farther to the left where they meet the top line than they are where they meet the bottom line. Cut the balsa struts to fit this model.

Be sure, in joining struts to wings, that you ambroid the strut to the balsa rib rather than to the paper. You'll have to scrape away bits of paper on the lower wing to do this; but remember that it's necessary for strength.

Now your job is done. You've built yourself an all-service ship, one that will stunt and zoom and loop with its monoplane wing and its flat motor, or soar for duration with either the monoplane or the double wing and its duration motor. The Manual tells you how to adjust it for various kinds of flights. But you'll learn a lot by experimenting with it yourself.

And it will bring you a lot of fun from contests. You can win a League honor certificate for a flight of thirty seconds with the ship, using either wing. You can make it fly for close to two minutes if you build it with extreme care and wind it properly. You will learn a lot that will help you toward your city championship and the second National A. M. L. A. Contests, to be held in Detroit next June, with it.

Remember that the League wants to

(Continued on page 38)

$1000 in Cash Prizes for Boys

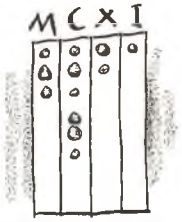
THE STORY OF FIGURES

The Invention of the Abacus

The Chinese swanpan, an improved form of abacus, is still used by merchants of the Orient. It can also be seen in use in this country in many Chinese laundries.

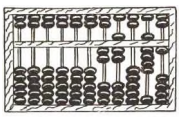
IN THE time of the ancients the numerals in use were ill-adapted to elaborate calculation. Further, the absence of suitable writing materials made it difficult to perform even simple problems in addition and subtraction. The finger method, too, was entirely insufficient for large calculations. Hence we find that men began to use counters such as shells or pebbles. The word "calculation" derived from "calculus" (a pebble, a stone used in reckoning) is a lasting memento of this stage.

Then as trading and shopkeeping grew more and more complicated some lazy genius invented a better way to work with pebbles. He invented a board, covered with dust, on which he could work with pebbles, trace figures and draw columns. Probably he was an Arab, as this dust board was called the abacus from the Arabian word "abaq" (pronounced abacue) meaning "dust".



One form of the Roman abacus consisting of parallel lines ruled on the sand. The circles are little stones or "calculi". The divisions for units, tens, hundreds and thousands are indicated by the I, X, C and M.

The early Greek bankers and the early Romans made an abacus of stone provided with grooves in which small stones moved up and down.



The position of the beads on this Chinese swanpan or suan-pan represent the number 27,091.

The Chinese developed and even today use the wooden abacus with beads running on wires. You may see one in almost any Chinese laundry. The proprietor does his figuring on it and keeps his books with the familiar ink brush. Some of the Chinese and Japanese are so speedy in their use of the abacus that they can add as fast as the figures can be read to them.

In a sense the abacus was the first mechanical figuring device. It was a useful aid to calculation, but did not provide a permanent record.

It remained for the Burroughs Adding Machine Company to create mechanical figuring equipment which is not only fast but which also gives a printed and permanent record of the work.

A Burroughs Billing Machine *One of the many kinds of adding, bookkeeping, calculating and billing machines built by the Burroughs Adding Machine Company.*

The ACCURACY of these fast Burroughs machines has literally revolutionized accounting methods not only in the banks, but in every size and kind of business.

Today the forward-looking young man about to enter business or professional life is making a knowledge of Burroughs machines and methods part of his life equipment.

CONTEST RULES

1—The contest is divided into two groups with an equal share of prizes awarded to the winning entries in each group. Boys who are 15 and not more than 18 on March 31, 1929 are eligible to compete in Group No. 1, while boys under the age of 15 on March 31, 1929 are eligible to compete in Group No. 2. Those whose immediate families are in any way connected with the Burroughs Adding Machine Company are ineligible.

2—There are just two things to do:

First, find in each Burroughs advertisement appearing in this magazine in the November, December, January, February and March issues the five key words which reveal the reasons for the dominant success of Burroughs machines. For example, the key word in the November advertisement was *speed*. The key word in the other four advertisements will be just as easy for you to find. List these five key words.

Second, in not more than 250 words write an essay on the following subject: *"Why I should expect to find Burroughs equipment in any business I may enter."*

3—For the correct list of key words together with the best essays received from each of the two competing groups the following prizes in cash will be awarded:

1st prize	$100
2nd "	50
3rd "	30
4th "	20
5th "	15
6th "	10
$5 seventh prizes of $5.00 each	25
Cash Prizes for Each Group	$500

TOTAL PRIZES $1,000

Additional Awards of Honor:

The winner of the first prize in each group will be further honored by having his name inscribed on a Burroughs Portable Adding Machine which will be awarded to the school he attends; or, if he has left school, to the school he last attended. These machines will be presented to the School at a public meeting by the Manager of the local Burroughs Branch.

Note: Write at once to the Contest Judges, Burroughs Adding Machine Company, Burroughs Ave. and Second Blvd., Detroit, Michigan, and ask for a copy of the free book "The Story of Figures". Read this fascinating book carefully from cover to cover. It will give you all the facts necessary to the writing of a good essay and winning one of these substantial prizes.

Conditions: The five key words and essay must not be mailed before March 1st, 1929. All five key words must be seen before you can list them correctly. The final key word will not appear in this magazine until the March, 1929 issue. Contest closes midnight March 31st and no entries will be accepted postmarked after that time. Address all entries to Contest Judges, Burroughs Adding Machine Co., Burroughs Ave. and Second Blvd., Detroit, Michigan.

Write plainly on one side of the paper, using either typewriter or pen and ink. At the top of the first sheet write your name and address, and give the age you will be on March 31st, 1929 and give the name and address of the school you attend or the one you last attended.

You may obtain information that will help you from your parents, from your school-teacher or any source you wish. But the essay itself must be your own original work. Prizes will be awarded strictly on merit, including correctness, neatness and clearness.

All essays become the property of the Burroughs Adding Machine Company and may be used in advertising or otherwise. None will be returned. Each boy will be limited to one entry only.

Prizes will be awarded June 1, 1929. Announcement of winners will be published in the American Boy Magazine in the October, 1929 issue.

The judges will be JOSEPH BOYER, *Chairman of the Board, Burroughs Adding Machine Co.*, G. OGDEN ELLIS, *Editor, American Boy Magazine*, LOUIS C. KARPINSKI, *Professor of Mathematics, University of Michigan*. Their awards will be final.

Remember: You can enter this contest any time up to March 31, 1929. Read the rules on the right. If you have missed any of the previous advertisements write for copies to Burroughs Adding Machine Co., Detroit, Mich.

Burroughs

Send for this Free Book: A beautifully illustrated book called "The Story of Figures" and giving the history of figuring from the earliest times will be sent *absolutely free* to any boy sending in this coupon. Print your name and address clearly on the margin of this coupon and mail it to the Contest Judges, Burroughs Adding Machine Company, Burroughs Ave. and Second Blvd., Detroit, Michigan. You will find facts in this book which may help you win one of these cash prizes.

NAME ADDRESS CITY STATE

(*Continued from page 36*)
help you in any way you can think of. It will answer your aeronautical questions, it will give you suggestions for forming clubs and holding contests, it will furnish model airplane information to your manual training teacher. Always send a two-cent stamp for reply to your queries And look for the airplane model articles that are coming in THE AMERICAN BOY in the next several months—they'll tell you about prize-winning models and about arrangements for the contests. Don't miss them!

Raymond Phillips, of Binghamton, N. Y., is going to be one of the first A. M. L. A. members to build this new biplane-monoplane "if the money holds out." Phillips writes, "I was mightily pleased to find out, in the November AMERICAN BOY, that you were announcing *two* new kits. I have built a model of every one of your planes, and intend to keep it up if the money holds out. Please send me the Experimental Kit and the All-Wood Kit. I enclose a money order.

"I have all afternoon to make and fly airplanes. I find that a candle or gas flame is most satisfactory for bending bamboo, and that a biplane R. O. G. flies slower and higher than the single wing variety, also makes perfect three-point landings with slow landing speed. I've also discovered that, if talcum powder is put on the rubber bands occasionally, they will outlast two pairs."

Stunt 'Er, Jimmie! (*Continued from page 28*)

That wave was a signal! "Wave a white flag signal, then change ships" the circus man had told Jimmie!

"'Change ships!' That's it!" he shouted, and convulsively threw the propeller back to compression. Before it had clicked up to speed, he was in the cockpit pumping the auxiliary primer. No time to check her. He jazzed the throttle once—twice—and furiously took off, hurtling down the turf track with a mighty roar.

Over the fence—the crowd was a blurry ocean of white faces below. Up—up—the sturdy ship climbed, almost hanging on her prop. He looked down again and saw the crowd waving. Safety belt and 'chute pack straps lay on the cockpit floor—no time to fasten them on.

He raised from his seat and looked ahead. Above him clung that figure to the fragile thread. Steeper he climbed, and the seconds seemed to be ages. Again he glanced up, and fifty feet above saw Shores' white face. He circled. A bit of blazing cloth dropped on a wing tip. He kicked on right rudder and it fell away. Then, swinging in a slow climbing turn, watching the air speed needle lest he stall, he brought the P. T. level just below that human pendulum, slammed his throttle off and shouted as the motor's clatter died:

"Jump!"

Before the word was out of his mouth there was a thud—a rip of canvas. The nose dipped and a voice—slightly cracked and tremulous—that made grateful, unashamed tears well up in Jimmie's eyes, called:

"Shores present, Capt'n—"

Then, as he put the P. T. into a gentle glide, the old showman cautiously climbed from the wing into the forward cockpit and looked back at Jimmie. His lips were still set with the strain he'd undergone, but his eyes were glowing with life. Then suddenly Shores cried out, and though his voice was lost in the rigging's scream, Jimmie's gaze trailed off to where the shaking finger pointed.

THE balloon, like a huge molten ball, was dropping swift to earth, leaving a great smoky haze above her. As Jimmie looked there came a flash that dimmed the sun, and on its heels a roll of thunder. The gas bag slipped, scattered to the winds. Air like a tornado blast buffeted the P. T. and Jimmie, glancing down, saw one burning fragment settle on the big tent, high up by the center mast. The canvas, dry and old, burst into flames.

Instantly the ground inside that oval fence became a maelstrom. Men, women, rearing horses, circus wagons circling wildly, cars spewing white vapor as their owners strove to drive them through the mob. The big animal tent folded suddenly, collapsed, and billowed out as though to clasp them all in its fiery embrace. The massed pigmy figures poured toward the arched fair grounds gate, and jammed between its portals.

Jimmie glided down. His lips were pressed in a grim straight line. Someone would get hurt if that gang didn't stop milling like stampeded cattle. He thought, too, of the helpless beasts trapped in that ghastly pyre. Closer to the ground, he gave the gun a series of short bursts, hoping the noise would give the mob pause. But no one even looked up.

He was dangerously low now and must watch his air speed, pick a safe landing in the field, away from that fear-crazed crew below. He scanned the terrain to right and left, then suddenly became aware that in the forward cockpit Shores was standing up, gripping the cowling so that his knuckles had turned white. And Jimmie, staring at his face, saw reflected in it stark terror. Then, as he too looked below, his heart stopped in horror.

Flattened out upon the turf before the burning tent, crawling sinuously forward in slow snake-like rhythm, came the spotted leopard. Her close-cropped ears laid back, she fronted the white-faced mob about the gate, tail switching nervously. Jimmie, far above her in the air, could imagine those yellow, pale eyes. He knew that some beasts, aroused to fear, find refuge in attack. The leopard, evidently sensing the panic in the crowd, moved a paw. Moved it indolently—but the stilled crowd shrank back a breathless pace. She was only fifty feet away now and, belly close to the ground, she crept nearer the crowd.

Jimmie's hand, unmeaningly, pressed the throttle. The motor roared and the big cat, with a movement almost too quick to register, looked up. The sun caught her topaz eyes and they flamed like a burning glass. Then the wind, brushing Jimmie's helmet, seemed suddenly to form words. It seemed that he heard Lieutenant Morgan's voice, cold, satirical: "Think you're Crazy Gilchrist?"

A wild thought formed. Instinctively he glanced once more at the scene below, at the instruments on wings and board before him. Then he gave the ship full throttle. As she roared in response, he prayed that somehow—some way—something would arrest the stealthy, forward death crawl of that silken demon on the ground. Ten seconds—twenty—he asked for only that.

And with the air speed needle quivering well above a hundred miles an hour, he threw the P. T. into a steep bank three hundred feet above terrain and dived!

As he dived, he bent forward, leaning from the cockpit to see more clearly. A second's fraction meant success or failure now. And then as he stared down, despite his desperate beating heart, despite the rush of wind tearing in fury at his helmet, despite the knowledge that death would be the penalty for failure, he felt a warmth surge up in him—a dazzling, mighty courage.

For, out there on the trampled turf, like a lone Sir Galahad, stood a dog. A squat, ludicrously shapen, sausage-colored dog—Mussel. Square in front of the leopard he stood, and in his pose there was a menace equal to the cat's own.

Still diving, the P. T. roared on down—down, until that tawny spotted monster, sensing a new foe, crouched. Then, with a vicious snarl, she sprang high in the air, her saber talons bared to attack this screaming monster of the skies. And Jimmie felt his prop thud against flesh—crack into a thousand splinters. In that instant, he snapped back his stick and zoomed toward the sky.

A half hour later, Jimmie sat on the trampled ground beside his ship and watched a freckled boy start down the road carrying Jimmie's telegram and followed by a throng of satellites. He looked at the smoldering ruins of Kilrain's Carnivorous Quadrupeds, at the salvage, consisting of the asthmatic lion, three singed camels, and an inscrutable, omniscient elephant swaying at a stake.

Then Jimmie looked up at the men standing above him. He smiled, but it was a tired smile

"Some day!" he said, sighing. "Looks like your buddy'll collect that insurance he was needing."

"Capt'n Rhodes," said Shores earnestly, "I reckon you can't figure just yet what all you done fer our outfit. If Ed Kilrain was here, he'd never let you git away like this."

Jimmie shook his head—looked up and grinned wearily.

"If Ed Kilrain would explain to Operations Office why I've washed out two good G. I. propellers in two days, I'd be obliged—otherwise—"

A sausage-colored dog emerged from beneath the cockpit in a sort of dignified, Blue Danube Waltz step, such as happy dachshunds affect. He stopped before Jimmie. There was devotion in his melancholy, slanting eyes. Jimmie exclaimed:

"Otherwise—if you feel that way——I'd like to have your dog."

"Take him," agreed Shores gratefully.

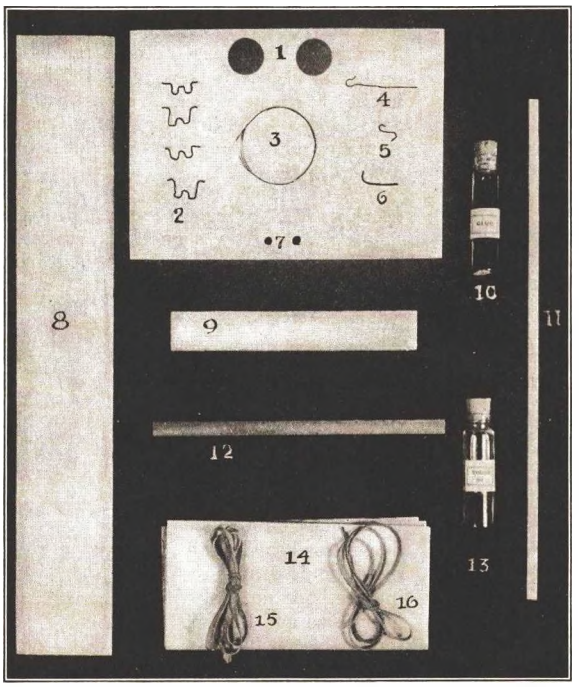
"You see," continued Jimmie, "the boys at barracks want a mascot, and I—yes, I kind of promised I'd bring one back with me. Going to change his name though."

And, slapping his leg, he called gently, "Heah, Woodpecker! Come, Woodpecker, old son!"

Next month, Jimmie, Atlee, and their pals in another air cadet story by Frederic Nelson Litten.

Here's the New Two-Wing R. O. G. Kit

It Replaces the Old R. O. G.



FROM the sixteen items in this kit, Number 11, you can build both the high-climb monoplane and the soaring biplane. To obtain the kit, send seventy-five cents in check or money order, payable to Merrill Hamburg, to the Supply Department, Airplane Model League of America, American Boy Building, Second and Lafayette Blvds., Detroit, Mich. The kit, with Manual and instructions included, will be sent you postpaid.

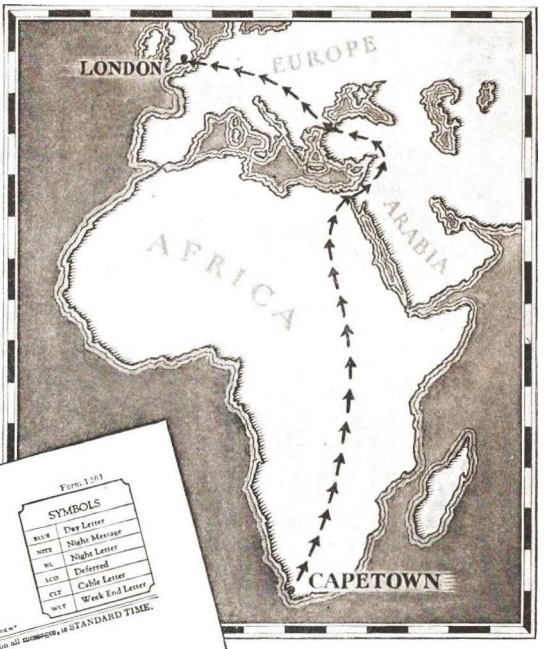
If you want separate parts, figure the total cost, add ten cents for postage (or ten per cent for postage if your order is above one dollar) and send your check or money order to the address above. Be sure that your name and address, and your order, are plainly written. And remember that the League cannot accept stamps in payment for kits and parts.

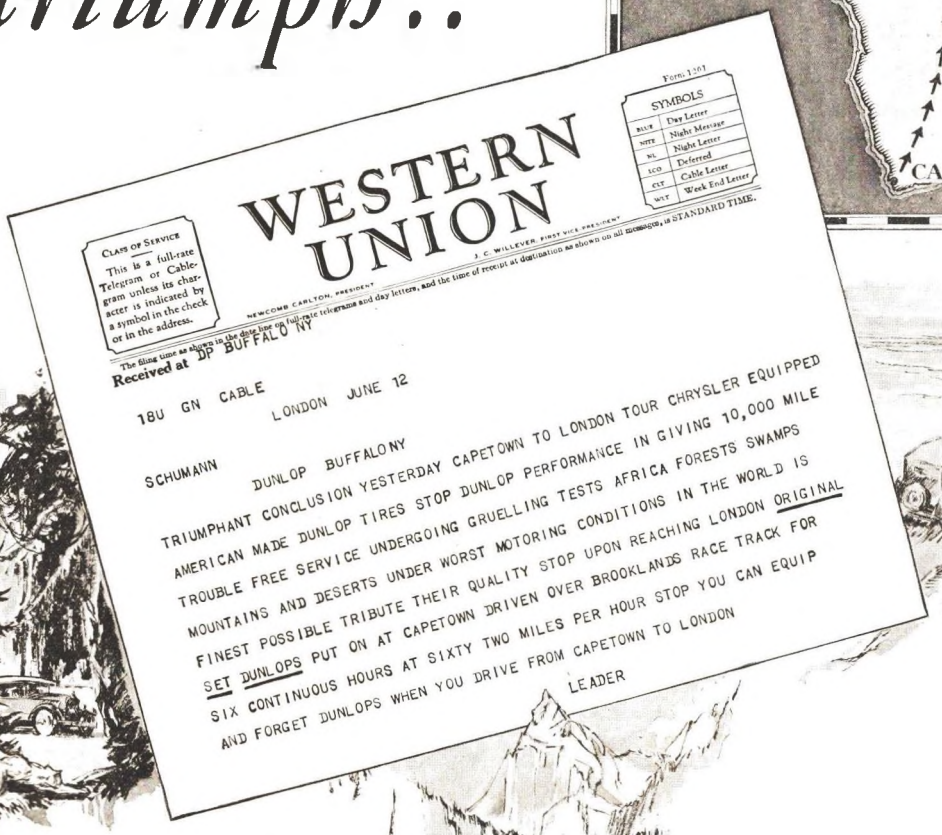
This kit with materials for an R. O. G. similar to that announced by the League more than a year ago, replaces the old Baby R. O. G. When you want to build a plane that stunts and flies in your living room, order this kit instead of the old R. O. G.

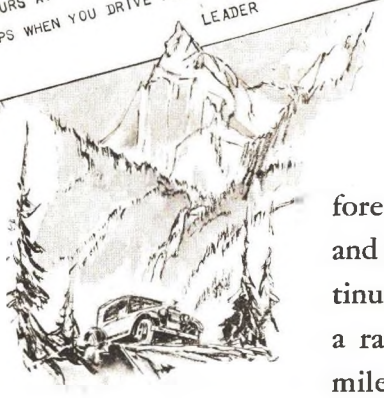
HERE'S WHAT THE KIT CONTAINS
(Numbers refer to picture)

1.	Two fiber wheels	$ .02
2.	Four wing clips	.20
3.	Music wire, No. .016	.01
4.	Propeller shaft	.05
5.	Rear hook	.05
6.	Thrust bearing	.05
7.	Two bronze washers	.02
8.	One strip flat balsa	.04
9.	Balsa propeller block	.04
10.	Ambroid cement, 2-dram	.10
11.	Balsa fuselage	.02
12.	Bamboo strip	.02
13.	Banana oil, 2-dram	.08
14.	Japanese tissue paper	.04
15.	High-climb rubber motor	.02
16.	Duration rubber motor	.02
	A. M. L. A. Manual	.05
	Instructions	.02
	Total	$ .85

DUNLOP TIRES *triumph..*







AGAIN Dunlop Tires, made at Buffalo, N.Y., have hung up a record for endurance in a most gruelling test against rough roads and high speed.

They carried on for 10,000 miles, the whole length of Africa and across Europe . . . from Capetown to England . . . 10,000 miles through forests and swamps, over deserts and mountains. Then, for six continuous hours, they sped around a race track near London at 62 miles per hour.

Read the cablegram above. It helps explain why more and more American motorists are adopting Dunlops.

What Makes It Fly?

The Third Talk on Aerodynamics

By ALEXANDER KLEMIN
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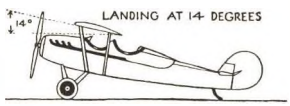
TO get the most out of this article you'll have to put your nose to the grindstone and do some real thinking—but there's a great deal of valuable information to be gotten out of it by just a casual reading. So skip the mathematics or not, as you wish. Either way you'll enjoy the article.

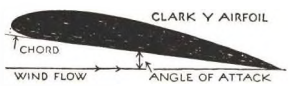
THOMAS EDISON, the great inventor, when experimenting with the electric lamp, wanted to find out one day what volume of air the bulb could contain. He set his mathematicians to work. In spite of much figuring, they were unable to give him a reasonable answer. Edison then made a small hole in the bulb, filled it with water, and measured the volume of the water. This practical method gave him exactly what he wanted.

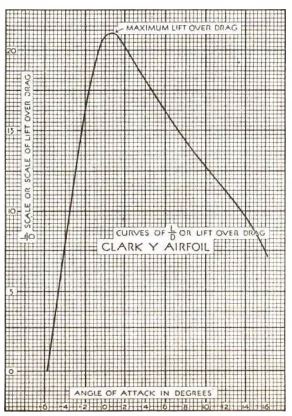
Edison is an intuitive genius, with no great liking for mathematics.

The late Dr. Steinmetz was a scientist of quite another type. He was for many years the chief consulting engineer of the General Electric Company and had a great mathematical brain, though he was a hunchback and only four feet tall. Clad in a pair of trousers and an undershirt, always with a cigar between his teeth, he would row himself out into the middle of a stream or a lake. There he would perform the most difficult calculations without the aid of mathematical tables or instruments, sometimes even without pencil or paper. Steinmetz, in his way, achieved as many discoveries as Edison. He even produced a close imitation of a thunderbolt and lightning.

Apparently in science the intuitive genius and the patient mathematician are equally needed.







In aeronautics, intuition is certainly very valuable. But calculations are wonderfully helpful, and that is our excuse for the few simple, mathematical ideas in this article.

What Is a Coefficient of Lift or Drag?

WE have already learned that lift and drag forces on a wing increase with its area and with the square of the speed.

But this fact does not enable us to calculate the lift or the drag of a certain wing. Some connecting link must be provided between the value of the lift or drag on the one hand, and the area and the square of the speed on the other hand.

When we are dealing with lift, this connecting link or constant is called the lift coefficient, usually denoted by the mathematical symbol "Ky," of which airplane designers are always talking. Dealing with drag, we have the drag coefficient, with "Kx" as its symbol.

By weighing lift and drag forces for any given airfoil on the wind tunnel balance, these coefficients are determined and then carefully recorded for future use in calculations and design.

One of the most important problems in aeronautical engineering is to be able to calculate the lift and drag of a wing. The following are the simple rules needed:

To find how many pounds a wing can lift, we multiply the area in square feet by the square of the speed in miles per hour, and then multiply by the lift coefficient as determined in the wind tunnel. To find how many pounds drag or resistance a wing has, we multiply the area in square feet by the square of the speed in miles per hour, and then multiply by the drag coefficient.

The Characteristics of a Typical Wing

OF the many excellent wings now available the Clark Y airfoil is one of the best ever developed. It is used on dozens of American planes.

Our artist has drawn this wing accurately to scale. Its appearance is indicative of efficiency.

The line touching the lower surface of the wing is termed the chord of the wing, and the angle of inclination or of attack is measured by the angle that the wind makes with this chord line.

We saw in our last article that the flow of air round a wing changed with its inclination. A reasonable supposition is that the lift and drag coefficients of a wing also change with its inclination.

One of the most useful and rapid methods of setting forth information is by plotting curves. Almost anything that involves numbers can be represented by a curve. We might plot a curve of the number of home runs made by Babe Ruth in successive years, and see at a glance how his form varies from year to year.

To study the changes in the lift and drag coefficients, they are plotted in a curve against the angle of inclination or attack, as shown in our diagram. These curves, when thoroughly understood, give the best possible insight into characteristics of a wing for various flying conditions such as landing, high speed and climb.

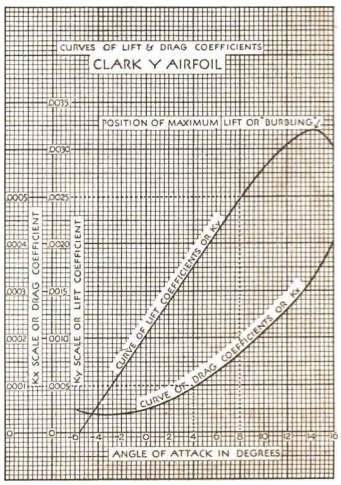
It is quite easy to use one of these curves.

Suppose we want to find the lift coefficient of the wing at 8 degrees angle of attack or inclination. Draw a dotted line vertically upwards starting at 8 degrees on the bottom scale, till it cuts the lift or Ky curve. Then draw a horizontal line to the left, till it cuts the lift coefficient scale. The answer is .0025.

Suppose now we want to find the drag coefficient at 4 degrees. Draw a line vertically upwards starting at 4 degrees till it cuts the drag curve. Then draw a horizontal line to the left till it cuts the drag coefficient scale. The answer is .0001.

It is useful to keep this method in mind, because we shall need to find coefficients in some calculations later on.

In the previous article, we learned that as the inclination of the wing in-



creased, the deflection of the air flowing past the wing and its lifting capacity increased also.

Does this agree with our curve of lift coefficients? It certainly does. At 0 degrees inclination, the lift coefficient is only .0010 for the Clark Y wing. At 8 degrees inclination, the lift coefficient is .0025, or two and a half times as much.

Flying Fast and Flying Slow

FLYING fast we need little lifting capacity—a small lift coefficient in other words—and therefore we require only a small angle of inclination, with the nose of the plane almost level with the horizon. If we want to fly at a lower speed, the lift coefficient must be increased and the nose of the plane raised accordingly.

Many a pilot understands exactly how to fly fast and how to fly slow, but has never thought it necessary to grasp this simple reason for changing the inclination of his plane.

At what angle will the beginner in flying "stall" his machine, if it is supported by a Clark Y section? Our curve of lift coefficient will tell us that this occurs at 14 degrees. The lift coefficient then reaches its maximum value of .0032. At a higher angle still, "burbling" or tearing away of the airflow sets in, the lift coefficient actually diminishes, and the weight of the machine is no longer properly supported. Of course nobody in the air troubles to measure the angle of the stall with scientific instruments. He is much too busy getting the nose down again. But it is very useful for the airplane designer to know this angle exactly. He must design his landing gear long enough so that the plane can be landed at the angle of maximum lift, with the front wheels and the tail skid touching the ground at the same instant, as shown in our sketch.

Calculating Landing Speed

SIR ALAN COBHAM, the famous English pilot who flew from London to the Cape of Good Hope in South Africa, claims that learning to fly will be instinctive with future generations. In the early days of the bicycle it was a great achievement to learn how to ride. Long skirted ladies would wobble dangerously on their wheels, while the men instructing them would run pantingly at their sides. Now a boy graduates easily and painlessly from a scooter to a bicycle, from a bicycle to an automobile. And from the automobile it is but a step to the airplane!

Older people seem to have tremendous difficulty in understanding the principles of flight. Any boy will early understand the calculation that follows.

Very soon, in these articles, we shall have the privilege of visiting, together with our artist, the factory where the Fairchild cabin monoplane, one of the most popular airplanes of the day, is being built. This plane, which you will examine in detail as an example of modern construction, is equipped with a Wright Whirlwind (the engine that helped carry Lindbergh across the Atlantic). The span or spread of its wing is 44 feet, the chord or width approximately 7 feet, so that the area of the wing is 7 x 44, or 308 square feet. Suppose the designers of the Fairchild cabin monoplane provided it with a Clark Y wing, and the landing speed is to be no more than fifty miles an hour, what is the permissible weight of the machine fully loaded?

In landing a plane slowly, the two front wheels and the tail skid touch the ground at the same instant. In this position, the wing should have an angle of inclination giving its maximum lift coefficient. For the Clark Y, the angle of maximum lift will be 14 degrees, and the maximum lift coefficient will be .0032.

Applying our simple rule, the weight or lift must equal this coefficient of .0032, multiplied by the area of 308 square feet, and multiplied by the square of the speed in miles per hour, that is fifty squared. Mathematically expressed, the weight

$= .0032 \times 308 \times (50)^2$ or 2464 pounds.

The method of finding landing speed when the weight is known is just as easy. The weight equals maximum lift coefficient multiplied by area multiplied by landing speed squared. Therefore the landing speed squared equals the weight divided by the product of the maximum lift coefficient and the area. If the weight were known to be 2464 pounds, then landing speed squared would be

$$\frac{2464}{.0032 \times 308} = 2500.$$

The square root of 2500 is 50, and the landing speed would therefore be 50 miles per hour.

In the hands of a racing pilot an airplane can land without damage on a well prepared flying field at nearly a hundred miles an hour. But we must be able to build machines which the ordinary pilot can land without harm in small emergency fields. It is therefore highly desirable to be able to land slowly. The shock on landing is then less, and there is less danger of nosing over in rough ground. Also a slow moving craft has less energy of motion than a fast moving one. Therefore the slow landing machine will soon come to rest. If a farmer's field—utilized in an emergency when the engine suddenly fails—is only a couple of hundred feet or so long and ends with a ditch, a clump of trees, or a stone wall, a short run is a highly desirable feature of our plane and makes for greater peace of mind. A plane that lands slowly can also fly off at slow speed, and after a short get-away run. With a plane having these characteristics, if the emergency landing is due to a couple of neglected spark plugs or other minor defect, that can be quickly set right, it should be quite possible to continue the trip even from a very small field.

Now looking back at our calculation, how should a plane be designed to get low landing speed? It should have either a large wing area for a given weight of plane, or else a wing with high value of the maximum lift coefficient, or better still a combination of large wing area and high maximum lift.

$100,000 for Safety

THE most important requirement in aviation at the present day is safety. Airplane travel to-day, properly organized, is much safer than people sometimes imagine. Persons who get quite nervous when looking from a great height are perfectly comfortable in a plane flying at ten thousand feet, because in flying there is nothing by which to gauge height. The accidents of which we read in the papers are generally due to some perfectly avoidable defect in the plane, or to reckless or inexperienced piloting.

There are a great many factors, however, which enter into aviation safety. We need skilled pilots in the air, careful mechanics on the ground, organized airways, and plenty of good landing fields.

We also need planes that shall have a high maximum speed, but can land and fly away at slow speeds.

For high speed, as we shall soon see, we need small wing area and low maximum lift coefficient.

For slow landing we need large wing area and high maximum lift coefficient.

It is the many conflicting requirements of airplane design that make it so fascinating, yet so baffling.

Harry F. Guggenheim, president of the Daniel Guggenheim Fund for the Promotion of Aeronautics and a distinguished naval aviator during the war, realized the importance of improving the slow landing characteristics of the airplane. The fund has offered a major prize of $100,000 and five smaller prizes of $10,000 each to the aircraft builders who will reconcile these conflicting requirements.

To win any prize, the competing plane must have a maximum speed of 110 miles per hour and a minimum speed of 35 miles, with points given for performance still better than this.

Here is a splendid challenge to American ingenuity. In our next article, we shall discuss flying wings of the future, and later on, some possible methods of winning these prizes.

Perhaps some reader of THE AMERICAN BOY will have an inspiration that will

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win prize money and glory for him.

In the same chart in which lift coefficients of the Clark Y were plotted against the angle of inclination, the drag coefficients were also plotted.

The drag coefficients behave in a similar fashion to the lift coefficients. At small or negative angles of inclination when the airflow is smooth, the drag values are low. They have their minimum value between -2 and -4 degrees as can be seen from the chart. As the angle of inclination and the lift values increase, so do the drag values.

Now, we have shown beyond dispute that, when flying fast, a wing must be at a small angle of inclination—in fact near the position of minimum drag. But the resistance or drag of the wings is given by the drag coefficient multiplied by the area multiplied by the speed squared. Therefore that machine will generally fly the fastest whose wings have the lowest minimum drag coefficient.

It seems fairly easy to increase the speed of the airplane. Records are made only to be broken immediately after. Major De Bernardi, the Italian pilot, has made well over 300 miles an hour in a seaplane racer, and designers are looking forward to the 350 miles an hour mark.

Besides streamlining and high power, and a small minimum drag of the wings, what is needed for high speed is the smallest possible wing area. Naturally, with the same power and weight, the smallest machine will fly the fastest.

Someone has said that a tea-tray could be made to fly if provided with sufficient power. This is an exaggeration, but it is surprising how small a wing area racers need to keep aloft. Given a very light engine, even more powerful than those used in the racers now, they could fly at terrific speeds with mere stubs of wings attached to the sides of the fuselage.

In fact, if we could launch the fuselage or body of the wing once into the air, and had a powerful enough engine, the little lift on the fuselage would be sufficient for flying.

The only drawback would be the terrific landing speed. Some of the racers, particularly the seaplane racers, land at nearly one hundred miles an hour—faster than the fastest express train!

This is permissible in the hands of expert pilots, specially trained for a given event, and willing to take risks for the sake of sport and glory and the advancement of aviation.

There is a good deal more required from an airplane than just slow landing speed or high speed.

Airplanes flying cross-country do not travel with engines all out. That would be wasteful of fuel, and would mean hard wear and short life for the engines.

The efficiency of the wing is given by the ratio of the weight it can carry to the drag with which it opposes motion. In other words, the efficiency is given by the ratio of the lift coefficient to the drag coefficient.

This ratio also varies with the angle of inclination, as can be seen from the second Clark Y chart, where the ratio of lift to drag is plotted against the angle.

For the Clark Y, this ratio of lift to drag has its maximum value—21—when the angle of inclination is one degree.

In cross-country flying the cruising speed is made to correspond as nearly as possible to the speed given by the angle of best lift over drag. A machine equipped with Clark Y wing should cruise at one degree or thereabout.

All other things being equal, that machine will cruise best which has the highest maximum ratio of lift to drag or L/D, as the aeronautical engineer always writes it.

The wind tunnels of Europe and the United States have been testing various airfoils for many years, and hundreds of good wings have been produced by designers. Every form of wing has been investigated. The most surprising improvements have been made in the lifting capacity and efficiency of modern airfoils, and it does not seem likely that there will be much further improvement in the airfoil itself. The problem for the airplane builder is not so much to design a new wing as to select from the wealth of airfoils now at his disposal.

We have stated the qualities required of a wing for slow landing, that required for high speed, and that required for cruising.

Is it possible to find a wing that combines all these qualities?

Next month Professor Klemin will tell you more about wings and airplanes. Monoplanes, he says, have proved to be better than biplanes. Read his fourth article to find out why. In November, you remember, he explained what makes airplanes fly, and in December he showed how engineers test the efficiency of airfoils. The complete series is a thorough course in the principles of aeronautics.

The Goat-Getters

(*Continued from page 15*)

The leap took him almost five feet into the air and the enthusiasm he put into the effort convinced the spying jay that he was also going to clear the twenty or more feet of distance between them. It sounded a shrill alarm and hurriedly flew deeper into the woods. Derry, over-balancing, came down gracefully on the back of his neck. Belinda thereupon regarded him with mild amusement and Derry, his dignity ruffled in spite of his polished tumble, glared after the fleeing bird as if daring it to push him like that again.

But Mac, already infected with the terrier's hilarity, decided that the jay should be taught a lesson. He charged impromptu into the brush, with the mercurial Airedale racing delightedly at his heels, while Belinda looked after them to ask the motive of this sudden sally. Neither Mac nor Derry had time to explain, apparently, and Belinda waved her horns in gentle deprecation of such discourtesy. Then, almost before the brush stopped swaying behind them, a shrill angry outcry came from her impetuous playmates. In business-like fashion she mounted a fallen log to crane her neck and see the reason for this sudden change of tone.

To the heated Dundee, now close to the opening under the big trees, there seemed no need to seek a reason. The dogs had turned on the innocent Belinda; unless he arrived within the next few seconds her blood would stain the forest moss. He saw her, was gathering breath to call her, when straight ahead of him the tops of the bushes swayed violently and into the narrow opening there bounded a large brown bear. Dundee didn't shout; he had suddenly swallowed something that blocked off the air.

The bear, maddened by the two dogs dodging about its flanks, considered that Dundee was a third enemy come to harry it. Righteously indignant at such unfair odds, it exhaled a hoarse grunt and made straight for him.

Now Dundee had almost no sportsmanlike feelings concerning bears. His thoughts about them were rarely colored by the spirit of fair play. It was not consideration for an opponent, therefore, that caused him to leave the field to the two dogs. It was presence of mind.

Even had he not been winded, Dundee was not fleet enough to outdistance the dreaded monarch of the wilds. Still, there was no harm in trying. He wheeled, leaped over a windfall, tripped and fell. As he thudded to earth a shout of agonized despair left his lips, then he covered his head with his arms in a last futile effort at self-defense. Now—or now—or now the brute would lunge and rend him. In the wild terror of his fate he dared not open his eyes to see where the first blow would fall on his undefended body.

But the bear did not close with him for, to be exact, it was otherwise engaged—engaged in beating off the snarling, plunging demons who darted in and nipped its haunches when it tried to rush ahead. It sat back, aiming terrific blows first at the big Newfoundland cross, then at the dancing terrier; and when, by circling and indulging in the in-and-out tactics of the trained bear dog, they convinced it that it was bested, the bear decided there was nothing left for it to do but climb a tree.

With a clumsy efficiency that made the most of every instant, the animal swarmed awkwardly up the bole of a stout tree and took refuge on a branch just beyond the dog's reach. Mac and Derry raised a wild, angry clamor, as if the bear's ruse had cheated them of their rightful prey, but there was a triumphant fervor in their outcry that was meant for the ears of Dundee—or Ed.

Ed, repairing a spare tire at his camp, had heard the shrill barking of his two dog partners a moment before, when they had first sighted the bear, but he had given it no significance. The sound, coming from a mile away, had been faint and thin—Ed had not caught, at that distance, the excitement in Derry's tenor and Mac's fine bass. Now, however, his ears picked up the victorious note in the insistent duet his two friends were broadcasting. The bursts of noise told him, too, where the dogs must be.

"For the love o' Mike," he exclaimed softly. "If that Irishman hasn't gone an' put that goat down by the river—and those blamed pups. . . ." His heart rose in his throat; stopping him in the middle of his sentence. Suddenly he started running at top speed for his truck. In an instant he was careening down the rutted, bumpy, twisting forest road with his foot pressing the throttle as far as it would go.

Dundee, uncovering his face for one fearful look behind him, saw Mac and Derry leaping beneath a tree. Above them branches bent and swayed under the weight of the climber, and as he staggered to his feet the section man knew that only the dogs' hunting skill had saved him. He was about to make off when Derry halted him with an arresting bark while Mac, circling the tree, looked first at the bear and then at the man to say that they had done their part and now it was up to him.

BUT the section man's only concern was to get himself and Belinda out of the woods without delay. Though remaining at their post beneath the tree the dogs were puzzled when they saw him drive the goat away. They barked for him to turn back and shoot the common enemy. But Dundee, his fright no whit diminishing his anger at the dogs for getting him into such a predicament, lost no time in cutting across the clearing to the section house. He was even a little bit grateful to the bear for saving his pet from the two heroes who had saved his life.

Even at the house, however, their shrill clamor reached him. Belinda, pausing in the gate of her cramped corral, lifted her long ears and listened. She had no desire to be confined to that bit of arid ground and as her master tried to push her back she braced her feet, lowered her head, butted him smartly in the pit of the stomach and with a conquering kick of her heels ran out of the yard and started headlong across the clearing. The dogs' barks rose insistently and with a thin "Na-a-ah" she tried to tell them she would soon be back to renew the funny game.

To the section man this rank desertion, this ingratitude, was the crowning aggravation of a bad forenoon. Reckless now, and mumbling threats, he dashed into the house for his old rifle and, taking up the chase, ran valiantly to overtake the goat before she re-entered the river woods. But once again he failed, and when at last he reached her she was standing on the edge of the opening under the big trees. To her it doubtless seemed that Mac and Derry, barking and leaping beneath the tree, were staging a comedy for her benefit.

Not until then did Dundee realize the surpassing luck that, against his will, had brought him with a rifle close to a treed bear. It looked like a safe shot. Of their own accord his arms came up; the rifle butt nestled against his shoulder. With a deafening roar the shot rang out and the bear, limp and harmless at last, thudded to the ground.

To Ed, who had abandoned his truck to charge through brush and leap fallen timbers in the hope of staving off a tragedy, the shot brought a wave of chill dread. Either Dannie had saved Belinda with a bullet or had taken his revenge. Ed's mind formed a picture—the limp, torn carcass of the goat and near-by the still body of a dog. Mac! He drove himself to increased speed.

As for Dundee, not even such hilarity as Mac's and Derry's could express his triumph. He who for years had shunned bears had miraculously brought one down. "Boys-oh-boys!" he shouted. "I've up an' done it!" Exultantly he snatched his old derby from his head and dashed it to the ground.

The dogs yipped and, because a hat in motion was better than a moveless bear, threw themselves upon the wreckage. They fought for it ecstatically, and when at last Derry had the rim and Mac the battered crown they romped joyously about Belinda. Derry laid the rim tantalizingly before her; with a swift thrust of her horns she tossed it up again. She bleated a playful challenge, and when Derry tried to recover the prize she charged gayly; the Airedale rolled over and over, found his feet, and barked in good-natured merriment. Belinda, triumphant, tossed her head and invited him to have another try. Mac sat down on his haunches, eyes alight over the tattered crown.

To Dannie Dundee this was the most amazing happening of an amazing day. "Ye pair of rogues!" he cried. "So it was fun y' was after all the while? An' me thinkin' y' was out to kill her!" As he stood beside the body of his fallen foe, Belinda bleated at him and flicked her tail in confirmation of this discovery; Derry pranced; and Mac, bounding at him with the last shred of the hat crown in his great jaws, prodded him with a foreleg in eloquent invitation for Dundee to make a partner in this merry-makers' foresome.

Ed broke into the clearing as Dannie bent over to scratch the great Malemute's ears and slap his muscled shoulders. Astounded, Ed came to a full stop. Then he saw Derry capering, heard Belinda bleat a comforting assurance that she was still alive, and noticed the brown mound that was the fallen bear. He grinned. There was nothing wrong with that picture.

The Mix-Up With Nuisance

(*Continued from page 18*)

feet, and the motor will catch hold. Boys, I hate to do it, because your car is so nice and mine is so rotten, but I see no way out of it. Adieu."

Mad? A cage full of wounded lions would have been angels of mercy compared to us. But there was nothing to do.

"See here," exclaimed Dook. "Let's go back on the train and waylay him at Auburn."

"Swell idea," said Red sarcastically, "but who's got any money? I spent all mine for my costume."

"Let's wire for some."

"If all my Sheriton friends would put all their money in one pile," said Porky sadly, "the astounding total would be somewhere on the left side of two dollars and sixty-three cents."

"Right," I agreed, in a crushed sort of tone. "Company, attention! On to Mehitable."

The seven of us in that time-battered flivver actually hid it from view. We looked like seven bees on a peanut. We were a human eclipse. If we hadn't driven all night we'd have been arrested by the Society for the Prevention of Cruelty to Flivvers. And we didn't make much progress, either.

Mehitable was a leisurely dame. She believed in taking her time. She'd do, under stress of great excitement, about twenty-five miles per hour on the level, and as high as thirty-two when the down grade was almost perpendicular. Uphill we'd usually have to get out and push. What with three punctures and the engine stopping on dead center eleven times, we weren't more than halfway home at breakfast time.

Every delay made us that more determined to drag Nuisance out on the public square and have his life's blood. And the thought of him burning up the miles in our luxurious eight-cylinder touring car didn't help him any, in our thoughts.

Late that night we wheezed into Georgetown, still a long way from the Sheriton campus. We staggered stiffly into a soda fountain and parked our aching bodies in ancient wire-backed chairs. All at once Red Barrett, who was reading the early edition of the *Post-Intelligencer*, sat up straight.

"Listen, fellows," he said, in a voice that was like a croak. "I'll read you a late bulletin.

"The Board of Control of Sheriton University met in a special session this afternoon to receive the report and extend congratulations to Grover Curtis, who managed the 'Sheriton-Ashford' game at Wenatchee which literally proved to be a howling success.

"When Curtis described in glowing terms the goodwill created by his expedition, and the way that the team, under his direction, had attired itself in bizarre costumes and burlesqued the contest all through, the Board simply doubled up with laughter.

"At the conclusion of the meeting the Board rewarded Curtis for his clever work by voting him one month ahead of the customary time for the choice, the varsity basketball managership."

We rushed outside, trundled Mehitable into a vacant lot, and tore her to bits. We left her a pitiful heap of rusted scrap iron. And then we tramped the rest of the way to Sheriton.

We got good and even with Nuisance later, but that's another story. I'll tell it to you sometime soon.

The Quest of Quicksilver

(*Continued from page 6*)

mountain oxalis peeped out at them with big white eyes, they ran, their bellies low to the ground, their soft sides heaving. They passed the dens they knew so well, the den of the snake's skin, the den with the water spring in it, the den that went down to blackness, the den, too, of the brown bats—warm places, cozy places, where they ached to lie down and rest. But they dared not. On they sped. Safety was only in the open, in the strength of their legs, in the arrow speed of their flight.

AND then Rufa, losing blood, marking her passage with a red trail of her own life fluid, began to slacken. Up in the mountain meadow she sank down, amidst the alpine mosses, the pincushion flower and the campion. Here, in the bluebells, where once she had rolled and played, lay Rufa, panting, her red tongue rolling, and her blood flowing and flowing, while Quicksilver, his nose lifted, his paw lifted, stood on a rock beside her, and listened to the noise of the pursuers, far, far below, in Hawthorne Notch. He heard them climb to Echo Lake, heard them slashing and cursing through the spruce thickets, and not until they were within a quarter mile of the bluest meadow did he spur up Rufa with a low snarl of warning. The vixen got to her feet. The bleeding had stopped now that her heart had quieted down, but she ran no more like the wind; she ran with pain, and weighed down with a great weariness upon her limbs. Over the rounded dome of Knob Scar, which the ancient glaciers had scoured down to bare rock, they loped, over Whiteface and the Steeple, with Rufa slackening at every step, and the hounds, tired but hanging on, coming and coming. It was for the den of two doors up on Pinnacle that the foxes were making.

They gained it at last, and the hounds were upon them, surrounding them, covering both exits. But for all their noisy boasting the dogs were afraid to enter. Silver and red, the winded prey sank down breathing deeply, listening to the crashing approach of the men with the deadly guns. In Rufa's shining eyes lay at last the look of defeat.

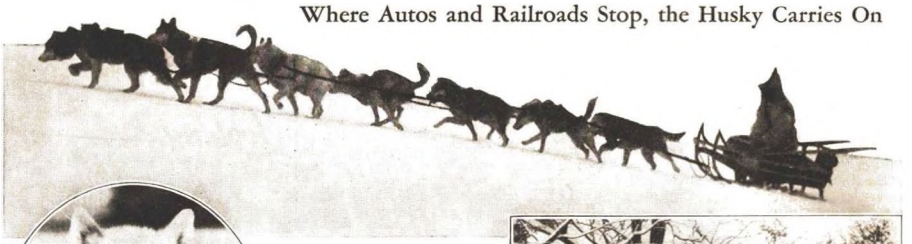
And then Quicksilver was up again, light on his feet, dauntless of heart, leaping out of the cavern full upon the pack. For a fox's anger matches even his cunning, and fox-wise dogs have learned to fear it. They drew back for a moment, and then the great blotched hound out of little Knob Hollow sprang to meet him, caught him in rending jaws, and they rolled over and over. The men were there—even in his red panic Quicksilver caught the gleam of the guns, heard one bark with a sound that split the chaos. But it was the great blotched hound that dropped with a sick howl and rolled over, and the next moment Quicksilver was smothered in thick darkness, wrapped up in a coat and held in powerful arms.

"You fools!" a voice was crying above the shouting. "Can't you see it's the silver fox that Vickery Farm is wanting? He's worth thousands—the finest breeding fox they've got."

But Quicksilver understood nothing of his rescue, nor ever knew that Rufa had slipped out of the den's other door and sped laggingly to freedom. He only knew that at last he lived again between the walls of shining wire, in the safe dull confines of benevolent despotism. But sometimes, lying dozing beside his frosty, snappish-tempered mate, he dreams of Rufa—Rufa whose silver-touched cubs are even now running gay and free over Knob Scar and Pinnacle. He remembers how merrily she rolled in the bluets, how bravely she led in the joy and danger of the raid, how they ran together, on blue and silver nights, their hearts high with freedom, under the wilderness moon.

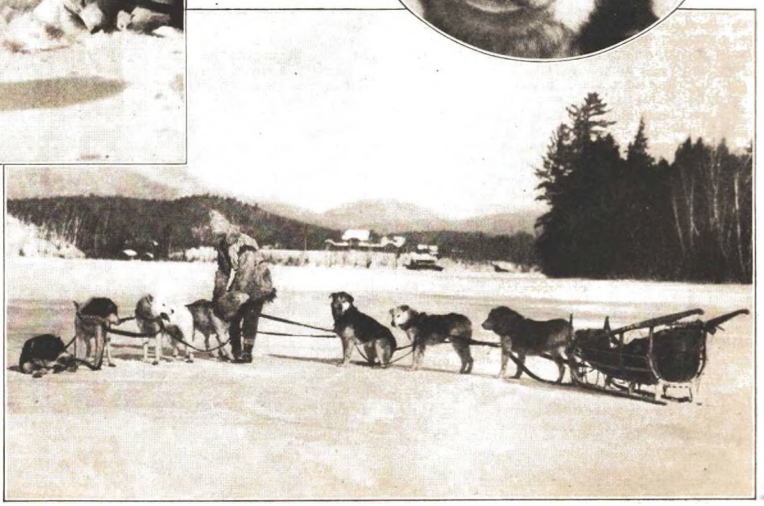
Dogs of the North

Where Autos and Railroads Stop, the Husky Carries On



If you're mushing an Alaskan trail, you need a Husky like Toto, pedigreed Siberian sled dog, whose erect ears and black nose can warn you of perils that lurk in the woods and on the banks of snow-hidden streams.

And you wouldn't be so bad off with "Robert Peary," son of Cormac, the dog that led Commander Peary's team in search of the North Pole. "Robert Peary" has battled wolves, faced starvation, and plunged through driving blizzards, when stopping meant death. A good dog to have around.



Three hundred and forty miles at an average speed of nine miles an hour—that's what one of these lean-muscled, lion-hearted teams has done! Every day, over trackless white wastes, they carry mail, medicine, and cargoes of cheer to the far-off outposts of human life.

Winged War

(Continued from page 11)

I'm sore. I'd have done the same thing if the situation had been reversed, so let's roll along and forget it."

A great feeling of relief swept over Russ. He was sure now that the Duke was not the Hawk, and suddenly he was equally certain that someone besides a lone outlaw was responsible for the series of crimes around the oil fields. Perhaps even the Hawk was in their pay. In that case, those notes could have been the work of any one of many people without the Hawk himself actually having written them.

They bantered each other as they walked, Delroy ragging Russ unmercifully and Russ retorting that Delroy was a bloodthirsty thug.

As they came closer to the field Delroy said suddenly, "It's none other than Mr. Ransome in our midst, and I don't know who's flying him. It's not one of the boys from the field, but it's one of their ships."

The precise, bespectacled Mr. Ransome walked toward them with Blackie, Salty, and the pilot. The pilot was a short, chunky chap with a pock-marked face and sun-crinkled green eyes. He had a wide pug nose, a bulldog jaw, and a ready-for-anything look.

"Hello, boys," Mr. Ransome said carefully. "This is Mr. Hammond, who was just hired as one of our pilots yesterday. Pardon me while Bexar and I get a few things straightened out."

They walked on ahead, Bexar talking steadily.

"Have you heard the news, Blackie?" Delroy inquired. "Russ has captured the Hawk."

"Huh?" grunted Williams, and Hammond's eyes opened surprisedly.

"Sure," laughed Delroy. "I'm it. He took my gun away from me and everything."

"Oh, shut up," Russ laughed back. "It was just an idea in the back of my noodle, Blackie."

"Well, you've got to admit the famous outlaw gave in without much of a struggle," Delroy went on.

As the Duke described what had happened, Blackie grinned with saturnine enjoyment. For some reason there seemed to have been generated among the three a new comaraderie. Peril and disaster had burned away their superficial masks. Suspicions and misunderstandings had been met and explained. They seemed to forget all their problems momentarily and they ragged each other steadily as they strolled toward the bunk house. Blackie, caustic and mocking, drawled humorous insults concerning the intelligence of the other two. Delroy, laughing and devil-may-care, gave vent to many remarks about the intelligence of United States Army flyers, and Russ pointed out in no uncertain terms that he was the only one of the three who was a man of sterling character and real worth.

As they reached the office building next to the bunk house, a horseman came riding wildly up the road. Half a mile back, the vanguard of Perana's motley army was in sight. The horseman was General Sancho himself, and Ransome and Bexar paused at the door to await him. The four pilots stood a short distance away. All eyes were bent on the huge Mexican as he dragged his horse to a halt and flung himself off.

"Did you get the Hawk?" Bexar asked him.

"No!" spat Perana.

"What are you all excited about?" Ransome asked him quickly as the irrepressible Delroy whispered, "Another nail in my coffin, eh what, Lieutenant?"

Perana hesitated. His beady black eyes shifted to Ransome's bespectacled grey ones. The general seemed to be at a loss.

"I should like to see you for a moment privately, Senor Ransome," he said at length. "It is fortunate that I find you here."

Salty Bexar's sharp features suddenly seemed stern and his dislike for the ornately dressed Mexican impregnated every word with menace as he said, "Listen here, Perana, did you cut the telephone line between here and Tampico?"

Perana's eyes opened with exaggerated astonishment. "Certainly not!" he said, spreading his hands helplessly.

"I'll see you in a minute, General," Ransome said crisply.

"Do not make it too long," Perana returned meaningly.

Russ felt a tingle along his spine. He found himself taut with a sense of impending crisis.

"Come in, gentlemen," Ransome said. They entered the bare office and the oil executive seated himself at the desk beside the second door.

"Hub reached me and I decided to come down immediately," he said, polishing his glasses. "I was the only one of the combined board who was available. Bexar has told me what has happened. Unquestionably you were right in suspecting General Perana's motives."

As he sat there, arrayed in a neat suit of tropical cloth and spotless white shirt, he seemed entirely out of keeping with his surroundings. The casually dressed flyers felt almost ill at ease. Suddenly the screen door was thrown open with a bang and General Perana stood in the doorway.

"I overheard you, Senor Ransome," he said, his fleshy face sullen.

His men were coming along the road now and an ever-increasing group of them was milling around a few yards from the office.

"What of it?" Ransome asked precisely.

"You should tell the truth, Senor. I—"

Suddenly Ransome was on his feet. "Get out, Perana. I'll talk to you later!" His eyes suddenly were like gimlets.

For a moment it seemed that Perana was about to say something else. Then the wrath that blazed forth from the ordinarily repressed oil man had its effect. The swashbuckling guerrilla chief stared down, left without a word.

Russ's mind was racing along, striving to grasp the situation. He felt undercurrents the meaning of which he could not comprehend. His eyes sought Duke Delroy's and what he saw there amazed him. Delroy was literally afire, but some of his careless joy was gone. His lips had thinned and his eyes were glued on Ransome.

"Now, gentlemen," Ransome said in low tones, still standing, "it is disappointing that the Hawk was not captured, but the main job at present is to save three hundred thousand dollars in cash. I feel certain that Perana is going to make a tremendous demand upon us—if he doesn't take all the money. The tribute we have been paying him for two years has been half justified and half a species of blackmail, if you will. Your ships are hidden so that he can't get at them easily?"

"Yes," Russ told him.

"Then here is what we will do. The box of currency, Bexar, you say, is in the pump house?"

"Yes."

"I hate to ask you flyers to exert yourselves so soon," Ransome went on meticulously, "but it's necessary. I suggest that you slip out now, make your way to your ships, if possible, and get into the air. As soon as you are up, circling, I'll inform the general that if he gets nasty you'll shoot him up. Under cover of your machine guns, Hammond and I will put the money in our ship and take it back to Tampico. The object of its being here, of course, was to outwit robbery and now that so many people know of it, it can't stay here."

"Do I get this right, Mr. Ransome?" the Duke broke in. The blaze in his eyes seemed to communicate a sense of almost stifling excitement to Russ. "You are going to fly this three hundred thousand dollars back to Tampico?"

(Continued from page 45)

"Exactly."

"You don't say?" Delroy said, so slowly that there was a pause between each word. "Wait a minute." Before anyone knew what he was about to do he had leaped for the door. "Come in here, General," he shouted.

Perana, who had been talking with two of his men a short distance away, came toward the steps.

"What in the world are you up to, Duke?" Blackie Williams asked him in amazement.

Ransome stood at the desk without saying a word.

"I'll tell you in a minute," Delroy threw over his shoulder. "Come right in, General."

Everybody seemed to be waiting in puzzled wonder to find out what Delroy was up to, and for the moment the blond adventurer dominated the room.

"Sit down, General," Delroy invited, and the watchful Mexican did so. With one of those marvelously quick motions that almost outwitted the human eye, Delroy had seized one of Perana's enormous pistols, and using his own body to screen what he was doing from the gaze of the Mexicans outside, he had stuck it into Perana's ribs.

"Now listen, General, I'm not going to hurt you," he soothed the apoplectic guerrilla. "You knew this money was at this camp and you said you had orders to move it yourself. You must have found it out somewhere. Who told you just where the money was hidden? And tell the truth, or by the mighty, I'll plug you where you sit and take my chances."

The men in the office froze into immovable statues. Perana's mouth fell open and for a second he stared at Delroy with mingled hate and fear in his eyes. Then, inevitably, his eyes roved to Ransome's.

"You don't need to tell me now," Delroy exulted "It *was* Mr. Ransome, wasn't it?"

For a few seconds there was no answer. Then, as though literally forced to do it, Perana nodded his head.

"Why, this is ridiculous," snapped Ransome. "Delroy, this grandstand play—"

"Grandstand play, is it?" Delroy snapped. "Now listen, you, and everybody." He had whirled like a tiger, gun in hand. "You're going to hear some things, Mr. Ransome, right now, and the rest of you may be interested. Furthermore," and he threw a quick, flashing smile at Russ, "it's the Hawk speaking!"

Chapter Thirteen

IT seemed as though Delroy were the only man in the room and that no one else had the power to speak or move. Somehow, his announcement of his identity was not astonishing to Russ. The whole situation had taken on an Arabian Nights atmosphere in which nothing was impossible or even improbable. He saw the Mexican's eyes bulge and the icy Ransome's jaw drop momentarily. Blackie Williams breathed deeply, his breath hissing through his teeth.

Delroy glanced outside. Some of Perana's men were within fifteen yards of the doorway and the panorama without was that of an uneasily shifting army of men. The guerrillas were gathered in little groups, some lying wearily on the ground, others talking as they smoked hand-rolled cigarettes. That they were in no pleasant mood after their fruitless night's search was obvious.

"Now before I make my little speech," Delroy said swiftly, "we'll make a few arrangements."

In a trice he had removed Perana's second gun from its holster. Still using his own body to shield the guns in his hand from the men without, his eyes roved over the group that was silently awaiting what he had to say. To an outside observer looking through the screened walls it would have been merely a group of men, some sitting, some standing, who were talking things over.

"Listen, Salty, and you, too, Blackie and Russ. There may still be some doubts in your mind as to which side I'm on. There needn't be. But if there are, don't plan on making any moves anyhow. Give me a chance—wait till I'm through. Ransome, if you so much as lift an eyebrow, it's going to be just too bad. Now listen, everybody."

He stopped again and that flashing grin illuminated his face. His instinct for the dramatic that had helped to make the fame of the Hawk resound through Mexico leaped to the fore. Desperate as the situation was, he was enjoying it to the hilt.

"I'm Arch Avery's brother, and likewise the Hawk," he started. "Arch was ruined down in this country by trying to buck one company, the International Refining. He put everything he had into drilling a well. When it looked good and he wouldn't sell out his piece to the International, they got him. He couldn't even get water to pipe to his well. He had to stand by while he was beaten down to the ground, sell out for a song and then see International Number Six, his well, come in at sixty-five thousand barrels, without doing him one dime's worth of good. You all know what I'm talking about. By every law of man he'd been legally robbed, and it broke him. I came down here and made up my mind with him that we'd get it back by hook or crook, and I turned into the Hawk. I told you how I disguised myself, Russ.

"I flew my own ship down here from the States, landed it in a spot that Arch had picked out. He's there now, just getting over the fever, a broken wreck of a man. Every time I think of it I could wring the necks of a certain number of people around here. Arch may be quick on the trigger, and they may not have liked him, but they had no license to ruin him the way they did. You know what I'm talking about, Blackie, even if we both are big company men now. Not all big companies are as bad, of course."

"I'll say," Blackie drawled, his eyelids so low that his eyes were almost invisible.

"Well, I didn't do so bad," Delroy went on. "There are an awful lot of people on my side, and I had fun. Got a great kick out of it. But it wasn't long after I started that I had competition."

AGAIN that flashing grin eclipsed his face. "I hate to admit it, gentlemen, but I'm not the superman the Hawk's supposed to be for the simple reason that other people have been stealing my thunder. I've been getting credit for doing all the things that have been pulled off by an entirely separate airplane gang. I'm a lone wolf. The others have a little army. It was a cinch, when they started operating, that they had inside dope straight from headquarters. Evidently some big bug, having seen how easy I did it, thought it was a good scheme. It was a cinch to pick up a bunch of renegade flyers around Mexico City. Sound reasonable, Mr. Ransome?"

The executive didn't answer. His eyes behind his spectacles were as motionless as a fish's. He didn't even wink. He was like a man turned to stone. Perana breathed noisily, his huge hands gripping the sides of his chair as though the feel of solid wood proved to him that what he was going through was real and not a dream.

"I got away with being the Hawk," Delroy resumed, "because I had the excuse of trotting away to this funny well back up in the monte. I wasn't suspected of being Arch Avery's brother for the simple reason that my name is really Delroy and we're only half brothers. But things began to get pretty hot for me when this reward was offered, and believe it or not, I commenced to grow a conscience."

He grinned as he said that, but somehow Russ sensed a sincerity in him that was not assumed.

"I've never killed anybody and wouldn't," he went on. "But somehow I felt responsible for the other gang. They got their idea from me. I tried to figure some way to get out of it—Arch and I talked it over for many a weary hour back in the monte. We were dragging in the dough all right and not spending a nickel of it except what was necessary to sink my well. But we were in bum business. What we planned to do was return every dime.

"Then the proposition of Blackie's came up. Blackie knew I was a pretty good flyer, and he asked me to help him hunt the Hawk—hunt myself! I took the job because I saw in it a chance to bag those other thugs, and in that way make partial restitution. Then, when I'd helped clean up the mess, I could go to the executives, return the money I'd taken, and take my chances.

"This may sound crazy, but remember this, Russ," his glowing eyes turned to Russ as though the red-headed flyer's opinion was the most important thing of all to him, "I didn't have to come clean and admit—just now—that I was the Hawk, and what I'm saying under these conditions ought to have some weight, regardless of what you think of me."

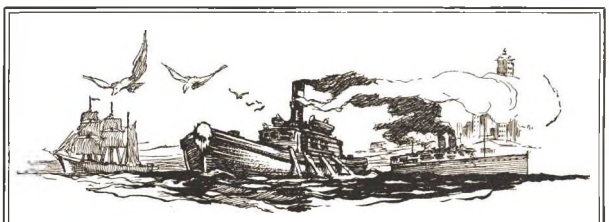
Russ nodded.

"Listen, Duke," came Blackie's drawling tones. "Better hurry. Those hombres outside are liable to come in any minute. I think I know what you're getting at—"

"I'll hurry," the Duke cut in quickly, "but I might as well get it off my chest now so you'll understand what we're up against right in this camp this minute. As I said, I've known all along that there were other people operating under high leadership. I couldn't help but know it. And the minute Perana, here, wanted to move the money from this camp, I felt sure the general was also working under the same higher-up. I didn't know who the big bug concerned was, but I knew it could only have been one of about six men. Not more than that many know about secret pay roll movements. Finally I narrowed it down, by my own marvelous powers of deduction, to just two, and you, Ransome, were one of them. When you showed up with this new pilot here and pulled that gag about carrying the money off in a ship, I became certain of things.

"That money would no more have reached Tampico than I'll reach the moon to-morrow. A faked forced landing, a little financial generosity, and a hold-up yarn would have fixed that. Furthermore, now that we know what kind of a guy Ransome is, I don't think, General, that you and your men would have got your half of the dough by acting as Ransome's tool when his gang of thug flyers had failed. I think Mr. Ransome, after giving a little of it to Hammond here, would have salted it away and shortly resigned to spend a vacation in Europe.

"So now, gentlemen, you have the reason for my admitting that I'm the Hawk. I'm admitting it because I've saved the big companies about three hundred thousand dollars this minute and have helped knock off the flying outfit that's been costing them plenty, and all the rest of it. And when you talk to oil men, you've got to have such evidences of good will. I'm sorry to be a fathead, but I must point out to all of you that I, and I alone, am responsible for saving this dough if it's saved. None of the rest of you were wise to Ransome, and you



Song of the Tug

By JACK CALVIN

Big boats,
Little boats,
Any craft that floats
Sings a song of joy to me—
And the best song of all,
Of the craft great or small,
Is the "*Chug-a-chug-chug*"
Of the business-like tug,
As it plows down the harbor to the sea.

Now a fine square-rigger,
With a mizzenmast and jigger,
Is a long sight bigger
Than a tug.
And she sings a song of gales,
Strange ports and whales,
And many things wonderful to me.
But when she comes to port
She's the dee-pendent sort
That runs up a signal
For a tug.
Then "*Chug-a-chug—chug,*"
Comes the hard working tug,
To bring her in safe
From the sea.
"*Chug-a-chug.*"

Take a big ocean liner—
There is really nothing finer
(Unless it is the diner
On a train).
From India to Spain
She's the queen of all that floats,
And she passes other boats
With disdain.
But when it's time for landing—
For a safe and gentle landing—
She whistles, notwithstanding,
For a tug.
Oh, the liner gives a "toot,"
And hoists a flag, to boot,
To let the world know
She wants a tug.
Then it comes, "*Chug-a-chug,*"
And ve-ry carefull-ee
Lays the queen of the sea,
At the quay.
"*Chug-a-chug.*"

When a rusty oil tanker
Hoists a jury-rigged spanker
Her skipper starts to hanker
For a tow.
And she sings a doleful song,
For there's something very wrong
With her junky old engines
Down below.
She heaves and rolls and wallows
On the crests and in the hollows,
Till her crew is very weary
Of the sea.
So she signals and confesses
Her despair, in S. O. S.-es-
"*Send tow—send tow!*"
Is her plea.
By and by there comes the chug
Of a little Diesel tug,
To bring home the tanker
Puffily.
"*Chug-a-chug.*"

Now and then a gorgeous yacht
With a master who is not
Really everything a sailor
Ought to be,
Gets herself into a mess,
Hoists a signal of distress,
And waits for a tug
To get her free.
So it comes, "*Chug-a-chug,*"
With a quite superior shrug,
And saves the precious toy
From the sea.
"*Chug-a-chug.*"

Big boats,
Little boats,
Any craft that floats
Sings a song of joy to me—
But the very, very best,
From the sunrise to the west,
Is the "*Chug-a-chug-chug*"
Of the serious-minded tug,
As it plows down the harbor to the sea.

wouldn't have stopped him from flying off with it."

Again he grinned as he said blithely, "I'll rest on the mercy of the court, as it were."

"Watch out, Duke," Russ said quickly. "Some men are coming up. Get in front of the general and Delroy somebody."

Russ bounded to the door as Salty and Blackie walked over casually and ranged themselves between Perana and the doorway.

"The general will be out in just a minute," Russ answered the inquiry of one of the sombreroed Mexicans.

The man nodded sullenly and he and his companion sat down on the steps. Many of the general's ragged crew were looking impatiently at the office. Russ instinctively knew that they were anxious to get that money and be gone. Delroy realized it too. Ransome seemed as cold as ice, and he was gazing at Delroy with a stony stare that somehow had the venom of a snake in it. He seemed to realize the futility of speech. Delroy had been so carelessly positive in every statement that he gave the impression of absolutely accurate knowledge of the whole thing.

"Now listen, boys," Delroy said in low tones. He was talking swiftly and his voice had a quality compounded of tense anticipation and joyous excitement. "We've got to save this dough. I've got to, anyway, or I'm a gone gosling. Here's what you do. Russ, you and Blackie go out the side door and make for the ships. I'll stay here and hold the fort with these guns at least as long as I can, so that you can get in the air. One of you beat it for Tampico, send some ships down here and report to the Mexican authorities that General Perana and his men are just camouflaged bandits. The other one can stay in the air and hold this army back from that money and also from getting away. We—"

"But listen," Russ cut in, his voice breaking with excitement. "You can't do that! You're the first man they'll get. Salty and the others nobody's got a grudge against. Those people outside will get wise to the fact that their chief is being held here, they'll rescue him in a second, and the first thing they'll do is get even with you. You can't, I tell you!"

"Who says I can't?" Delroy grinned quizzically. "There's no need of getting Salty or anybody else in this mess by handing over the guns to him. It's my little job and I'm going to do it."

"Why not let me stay and you fly?" Russ exploded. "Duke, you're sticking your head right into the lion's mouth—"

"O. K., my boy, but I might get loose," Delroy grinned. "I'm doing this, and I'm taking my one shot at making up for the past. Don't give me too much credit. I'm looking out for Number One. And get going, man!"

"Listen, everybody," Russ said in low tones that would not reach the men outside. His eyes burned into the opaque black ones of General Perana. "I'll be in the air in a few minutes and if one hair on the head of Delroy is harmed, I'm going to go through your whole army with machine guns and mow you down like so many weeds, do you understand?"

THERE was no answer. It seemed that Perana had lost the power of speech. He wet his lips with his tongue and nodded slowly.

"Get it?" Russ snapped at Hammond.

"Sure," rasped the pilot. "This is all a pipe dream to me."

"You remember it, too, Ransome," Russ fairly snarled into the oil man's face. "Ready, Blackie?"

"Right!" Blackie answered and there was a note in his voice that Russ had never heard there before. Blackie Williams would be a hard man to buck in the next few minutes.

As the two flyers walked casually out the side door, Russ felt as though he were almost suffocated. Nothing was harder than to walk slowly and casually across the clearing under the eyes of two hundred restless men who suddenly seemed to have sensed that something was wrong. Back there in that office, Duke Delroy, the Hawk, in the very center of enemies who would have delighted in tearing him to pieces, was holding an army with two guns. As they approached the mesquite Russ had an almost ungovernable impulse to break into a run. The moment that one of Perana's subordinates realized what was happening within the office, the game was up. He looked around.

"It won't be long now," he gulped to Blackie. "Those two men are on the top step, opening the door."

"Let's go," Blackie almost shouted as he broke into a run. "I don't give a hoot about the money—we've got to save a *man!*"

Chapter Fourteen

THEY got into the air just in time. Russ blessed the lucky thought that had caused them to move the ships, because as his *Bullet* followed Blackie's down the roadway, a group of fifteen Mexicans, riding like mad, swept into sight. Exactly what had happened back at the camp he could not tell, but that Perana and Ransome had been rescued by Perana's men was a certainty.

Blackie roared away northward toward Tampico. There had been a short, almost bitter, argument as to who should go to Tampico. Russ had won. Blackie could waste no time in assisting Russ even for a few minutes. It would be more than two hours, under the very best conditions, before relief ships could get back from Tampico. The moment Russ ran out of gas, of course, the outlaws on the ground would have a chance for escape.

During the few seconds when Russ was banking his ship and racing back toward the camp, scarcely two hundred feet high, there was but one thought in mind—Duke Delroy. No matter what the Duke had been, he was a friend—a friend in deadly peril.

With a sweep of his eyes he took in the scene being enacted on the ground. How the indomitable Delroy had done it he did not know, but certain it was that the gay flyer was on horseback, riding wildly through the mesquite that skirted the rim of the camp. He was heading for the general direction of the landing field. He was staying in the mesquite, using it as a screen against bullets, and behind him were a half dozen Mexicans striving to overtake him.

The rest of Perana's men seemed to be rushing around aimlessly. There was wild activity as little groups split off from the main bunch, scooting in every direction. Then he got the meaning of it. They were scattering in an endeavor to escape. They were trying to make it impossible for Russ to round them up.

A group that included the general was carrying a wooden box that evidently held the money. For a second, Russ circled over the clearing unaware of scattered firing from the ground. He saw Hammond and Ransome rushing toward their ship. They were on foot. Strangely enough, Russ had almost forgotten that there was another airplane involved in the situation.

Then everything clicked suddenly into place in his mind and he knew exactly what he would do. In an instant he had turned his ship, which was now five hundred feet high, and was diving it at the ground, pouring a shower of bullets into the earth a few dozen yards in front of the group that was pursuing Delroy. The Mexicans dragged their horses to a stop instantly. Russ fired a few farewell bursts at them, and as he did so he got a glimpse of Delroy waving congratulations at him and pointing toward the field. Delroy could get away now into the monte, but he didn't go. Why?

Russ couldn't bother to think of that. He was hurtling toward the field, now, leaning forward tensely as though to help his ship along. Delroy was safe. That was enough, plus the situation itself, to turn Russ into a reckless, flaming flyer who was in the very seventh heaven. His blood was racing and his eyes were bright as stars as he fairly hurled his ship toward the plane on the ground, wrecking it with bullets as Hammond and Ransome stopped in their tracks, their way of escape cut off. In a second the airplane on the ground was afire as the bullets found the gas tank, and Russ,

(*Continued from page 47*)

barely two hundred feet high, was rushing to stop a brigade of fifty riders who were about to find shelter in the monte.

For two minutes he sped like an aerial range rider rounding up groups of cattle. But he couldn't efficiently keep track of them all, and suddenly he reflected, "What do I care about all those bandits? It's Perana, Ransome, Hammond, that I've got to watch out for." And those men he did watch out for.

He fairly ringed the spot where Perana and a few of his men were riding, and they stopped, helpless. It was not an easy feat, for Russ had to avoid hitting the pumping station employees. Around the various wells they were standing open-mouthed, without the sense to run for shelter.

RUSS was flying very low and there was continuous sniping at him from the ground. Back and forth he weaved between Hammond and Ransome and Perana, keeping a watchful eye about him. They seemed to have given up hope of escape. Hammond and Ransome were now on horseback, sitting quietly. So were Perana and his group of men. By this time the rest of the Mexican bandits had disappeared into the monte. The job seemed to be done.

"There's nothing to do now," Russ thought exultantly, "but sit here until my gas runs out. And Blackie or somebody will be back before then."

His eyes searched the ground for Delroy and finally found him. Delroy was at the edge of the flying field, beckoning upward. Russ flew over and as he dipped low over the field, keeping an eye on his three temporary captives the while, he saw that Delroy wanted him to land.

"Delroy's in a tough spot even yet," Russ mused. "Practically any one of those guerrillas would pot him on sight out of revenge. Some of them may be sneaking up on him from the monte now."

A quick glance assured him that Perana, Ransome and Hammond were making no move to escape. He banked around and a moment later was landing. Delroy was rushing toward the ship. His face was fairly radiant and Farrell's own was shining with joyous satisfaction as Delroy threw himself from his horse into the back cockpit.

"O. K., boy," he shouted joyously. "What a day's work this is, eh what?"

An instant later Russ was taking off again—just in time. His eyes sought the three men that were so important to him, and as he saw what was happening, he turned to Delroy and pointed. Hammond was still sitting quietly, and three men who were evidently oil men were coming toward him to capture him. Employees of the pumping station were surrounding Perana. But Ransome had not given up so easily. He was riding like mad for the mesquite.

It didn't take Russ more than five seconds to overtake him. Bullets started kicking up the dust in front of the fleeing oil man. But Ransome didn't stop. Russ turned and looked at Delroy and the Duke shrugged his shoulders and spread his hands. There was no need for conversation between the two. The Duke evidently realized, as Russ did, that Ransome would not stop now for bullets. He'd rather be dead, apparently, than captured. Three times more Russ fired in front of him but always Ransome rode on. Russ stopped firing and took a minute to circle above the fugitive and get altitude. Then he cut the gun in order to speak to Delroy.

"He won't stop," he shouted, "and I can't kill him, Duke!"

Delroy nodded. "I know what you mean," he shouted back. "We want him alive anyway. He's the key to the whole trouble. We need his testimony—his confession! Hammond won't know anything important, probably, or Perana either."

Russ, gliding his ship gently, nodded his agreement. Perana and Hammond were probably just odd job men. Ransome was the brains of a conspiracy much wider than even his handy men would suspect.

Delroy was standing up in the rear cockpit, leaning over so that his mouth was close to Russ's ear.

"You're sitting on your 'chute, aren't you?" he inquired, glancing downward, and Russ nodded. For a moment Delroy outlined the plan that had occurred to him to make certain of capturing Ransome alive; when he had finished, Russ merely nodded and shoved the throttle all the way ahead. It seemed to be the only way out. That Ransome should be made a captive was unquestionably of the utmost importance. That he had evidently decided either to escape or be killed was equally self-evident, but the chance that Duke Delroy was about to take—as the very climax of a thrill-packed life—was one that made the red-headed Farrell's face grim and set.

THE Duke was strapping on his 'chute now. They were a mile or so behind Ransome. The oil man was riding a straight course, apparently with the sole idea of losing himself as far as possible in the monte. It was almost useless for the flyers to try to keep him in sight, because the moment they left him to go back and inform the relief ship where he was, he could hide himself in that luxuriant jungle. But where he was now the monte wasn't thick. Now was the time to get him.

There were three or four small clearings, two of them showing the black stub of an abandoned well. The time had come for Delroy to make his jump—a terrifically dangerous one. Russ felt as though he could not bear the ordeal much longer, for Delroy, whatever he might have been, had earned his way into a precious niche in Farrell's heart.

The jump had to be made from a very low altitude to keep Ransome, if possible, from knowing that an enemy was dropping on him. Trusting to Ransome's evident intention of pursuing a straight course, Russ took the ship five miles ahead of him and only four hundred feet high. Then Russ looked back at the Duke. A four hundred foot parachute jump! His heart caught.

For a moment their eyes met and held. Delroy's hand was raised in a casual gesture of farewell as he got up on the seat. The next second he had jerked the rip-cord ring and had been whisked into the air. There was a jar that shook the ship in every strut and spar as his body hit the vertical fin. The next second Delroy was dropping earthward, swinging so terrifically that his body was higher than his 'chute at the crest of each arc. That was the peril! The chances were ten to one that he would still be swinging when he hit the ground, and should he reach it on a down swing, serious injury was almost a certainty.

Only for a second, though, did Russ watch his comrade. Then he became aware that his ship was acting peculiarly. It seemed to be wobbling around in the air. He moved rudder and stick in an effort to control it. They seemed to have little effect. He forced himself to look back at the tail surfaces. The story was written there, plainly. Delroy's body, smashing into them, had crumpled the rudder and one elevator. One control wire seemed to be useless. Evidently the hinges that attached the controls to vertical fin and horizontal stabilizer had been twisted so that they would barely move. He must come down, for he couldn't raise his synchronized elevators enough to overcome the weight of the motor!

He shoved the throttle all the way ahead—he had had the motor throttled to fifteen hundred revolutions—and as the ship gradually came level Russ gave a great gasp of relief. It was not a matter of a straight nose dive into the ground then—

He looked down at Delroy. The Duke was still swinging and Russ forgot himself and his own peril as his eyes followed Delroy to the ground. During the last ten seconds, oblivious to his crazily acting ship, he kept his eyes on his friend, unable even to breathe. Delroy would hit the small clearing, all right, but would he be swinging?

There was brooding tragedy in Russ's clear blue eyes as he saw the inevitable happen. Delroy's body swung down to the ground, sprawled out almost horizontally. A slight breeze caught the 'chute and dragged its limp human burden across the clearing until the silk wrapped itself around a tree. There was a slight movement then, and it seemed that the Duke was trying to struggle to his feet. But he was evidently weak and badly hurt. Russ's throat choked.

But he could take no more time to look. His ship had fallen off into a half slip, half tail spin. Perhaps the Duke, after all, was the lucky one. And yet he must make one last effort to get Ransome. He could see the fugitive, now a mile away, through the trees. Again the motor went all the way on and the jammed rudder moved reluctantly as he pitted all his strength against it. Slowly the ship started level, two hundred feet high, until it was headed straight toward the horseman below.

Ever so gently, Russ eased back on the stick. There was no chance to maneuver for a clearing. He must crash into the trees straight ahead. Looking almost certain death squarely in the eye, the stalwart pilot settled down to fly with all the matchless skill that was his. Using the throttle with infinite delicacy, and tugging at that almost useless stick, he succeeded in bringing the ship up with its undercarriage almost scraping the trees. Fate helped him a little—

Ahead of him was a stretch of jungle that was like a matted green carpet. Fifty yards back of it, and barely five feet higher than the tops of the trees and vines, he cut the throttle, relaxed every muscle in his body, and covered his face with his arms. A second later the ship was ripping into the tops of the trees. It slowed as a man's body does when it hits the water, and Russ was thrown forward heavily. His belt wrenched him badly, but it held. His arm partly saved his face.

For a second the universe was a mad thing as the ship ripped and tore down through the undergrowth. Russ, curled up like a porcupine inside the cockpit, waited bloodily for it to stop. A last crash, as a wing crumpled on the ground, and he found himself hanging head downward, his face cut and bleeding from a bush into which his head had been thrust. But he was alive—anyhow.

In the great wave of relief that swept over him, his mind started functioning again. Painfully, he dragged himself from the wreck, and careless of his aching arm and a twisted leg, and a pain in his stomach that almost bent him double, he started to work on the scarf mount around the rear seat. In a few seconds he had his Lewis guns free. He carried them into a clump of bushes and pointed them toward the direction from which Ransome was coming, if he did come. Then he dropped flat on the ground as though he had been thrown there from the wreck. One hand was on the trigger of the gun, concealed in the bush, but his body was in plain sight.

What he had figured might happen did happen. Ransome, of course, had seen the wreck and doubtless could not conceive of a man's coming through it safely. That, plus curiosity, perhaps, had kept him from altering his course. He rode forward warily. Russ did not move. Finally satisfied, the oil man got off his horse and came forward. He was still fifteen yards away when Russ gathered himself. He flung his body into the clump of undergrowth that shielded the guns and the next second the machine gun spoke.

He fired into the air above Ransome's head. The oil man stopped as though turned to stone and Russ's voice rang out as he ceased firing.

"Not a move, Mr. Ransome, or I'll start shooting low. Come forward slowly and drop your gun."

Come Over to the Radio Movie

By Armstrong Perry

"HOW about coming over to the house to-night, Slim, and seeing a show? They're broadcasting one from New York."

"You mean they're broadcasting the music?"

"Nope. They're broadcasting the show. You'll not only hear it, but you'll see it, too!"

That little imaginary conversation isn't as silly as it sounds. In fact radio movies have already arrived. Not long ago, an Eastern station broadcast the actual movements of people, and they were successfully received in three homes several miles away! In a few years, you may have in your home a televisor—that's what the new receiving apparatus is called.

With the televisor, you'll be able to sit in your library, lean back in comfort, gaze at a screen and see reproduced there the antics of your favorite New York comedian!

The apparatus that receives sight instead of sound consists of a neon gas-filled lamp, a scanning device and a synchronizing system.

The neon lamp, called Moore lamp after its inventor, receives the waves from the ether. It fluctuates with the current just as the diaphragm of a loud speaker vibrates.

The scanning disc takes the fluctuating light from the neon lamp and converts it into a moving picture. This disc is 24 inches in diameter and has 48 small holes arranged in a spiral. The disc revolves opposite the lamp and "paints" the picture by throwing on each spot of a glass screen a tiny piece of it, as bright or as dark as the corresponding spot on the person whose picture is being transmitted.

The disc revolves past the lamp 18 times per second and "paints" a complete picture at each revolution. The effect is like that of the motion picture, which is composed of still pictures shown at the rate of 16 per second.

The picture as received is only 1½ inches square, but it is magnified to 3 inches square by lenses.

The synchronizer keeps the scanning disc revolving at the same rate as a similar disc at the transmitter.

The first radio movies were transmitted from the Eastern station on a wave length of 37.5 meters. Voices and music were transmitted at the same time on 379.5 meters, so that these were talking radio movies!

Sometime, when you tune to 37.5 meters, you may hear a radio movie even if you cannot see it, for the radio waves that carry it are changed into sound by the ordinary receiver.

It was one week later, to a day, at eight o'clock in the evening in the Tampico Country Club, when Messrs. Blackie Williams and Duke Delroy, together with Lieutenant Russell Farrell, held their first reunion. Delroy, not seriously hurt in his parachute drop, had been out of the hospital three days, but they had been very busy days for him. Russ, unable to walk after his capture of Ransome, had been picked up by a rescue party after three hours in the monte, and had spent the remaining time in a bed in Rebrache. He had seen Blackie frequently, but this evening was the first time he and the Duke had met since that eventful twenty-four hours a week before.

The red-headed pilot was feeling exceptionally well as he sat with his two comrades at a secluded table on the screened end of the porch. For them the rest of the world didn't exist. Russ learned that Ransome had made a complete confession and that a round-up of dishonest employees in subordinate positions, from field men to office men, had been accomplished. That a huge conspiracy, which had cost the companies many hundreds of thousands of dollars, had been responsible for protected banditry on the part of Sancho Perana, seemed like a tale from a book.

"I see you're a respectable citizen again, Duke, eh?" Russ grinned. Somehow that to Russ seemed infinitely more important at the moment than that oil field banditry had been stopped.

"Yeah," drawled Blackie mockingly. "And how it hurt the boy to pay in all that dough he'd stolen!"

"Not so much," grinned Delroy. "Look what they paid back to me!"

"Did you have much trouble?" Russ inquired.

"Not a bit, as a matter of fact," Delroy told him. "Compared to Ransome and his gang of bookkeepers, flyers, Mexican generals and field superintendents, I was just a romantic, but unimportant figure. Boy, what I was getting credit for around these fields was plenty!"

"You were the same kind of a sap," Blackie said unkindly, "that I was a year ago. It's enough to drive a man crazy to know he has been swindled out of a fortune and has no way of getting it back. But he certainly is crazy if he thinks that crooked work can win."

FOR a minute Delroy's face was serious.

"You're right," he admitted. "I went about it in the wrong way. And yet every dime of the money I took belonged by rights to Arch and me. I took it only from those who had taken it first from us."

"This reform stuff of yours," Blackie told him caustically, but with a humorous gleam in his eye, "doesn't exactly jibe with your coming back into Rebrache to steal one of our ships. You were supposed to be all reformed when you pulled that one."

"Oh, that!" Delroy grinned, looking at Russ. "I did it for two reasons. One was so that I might have an opportunity to ease into the rival gang—if there were any left—and get them from within. They might willingly accept a man who pulled a stunt like that. The second reason was that it seemed such a good joke on Russ and all of you that I couldn't resist making a grandstand play. Gosh, how I enjoyed it!"

"That was plain to be seen," Russ told him with a grin. "It took the nerve of the very devil, but you were certainly getting a kick out of it."

"I'll admit that I've got a kick out of the whole business of being the Hawk," Delroy admitted blithely. "Holding the center of the stage and acting up to my part made me feel like king of the herd, for a while. But deep inside I had a sneaking feeling that I was a low-down thug. And that wasn't pleasant."

"How did you come to write those notes?" Russ demanded. "I never did ask you about that."

"Two reasons, my boy, two reasons," laughed Delroy, digging into his salad with gusto. In a white flannel suit and white shirt he looked more like a blond college boy than he did like Duke Delroy, alias the Hawk. "One was that I really would have liked to scare you out—I wanted to make my amends unhampered and particularly uncaptured. The other reason was that I got a kick out of it, like any practical joke. That parachute stuff, of course, was pure accident, and I just took a chance to have a laugh on everybody by planting that note."

"Where did I come in on that?" drawled Blackie. "You certainly put me through a course of sprouts—made Russ think I was the Hawk—"

"What could I do?" Delroy interrupted. "I had to let you get suspected to save my own skin. I wouldn't have let it go too far—I'd have cleared you, never worry. But I'm sorry. I made a fool of myself all the way along."

THEY talked on casually, steeped in deep contentment. Russ continually marveled at those chaotic hours, but out of them there emerged but one outstanding personage—the indomitable, incomprehensible, unexplainable combination of devil-may-care youth and first-class fighting man—Duke Delroy. Russ would never have done what Delroy had, but he could understand how the Duke's hot resentment at the ruining of his brother had thrown him headlong into methods that were legally wrong. Somehow, he recalled a poem he had read somewhere, about, "A race of men that don't fit in, a race that can't stay still." That was Duke.

Dinner was over, and as they drove back to town under a glorious midnight moon, Russ was silent and distraught. He was leaving early next morning by boat and had to be aboard that night. Delroy was going back to his well and Blackie was to continue his work as general field man for White's company. That huge oil executive, stunned by what had been uncovered, had not only accepted restitution from Delroy but had gone so far as to roar with laughter at the narrative of the pilot's escapades.

"I'm going to see you in the States in a month or so, eh, Blackie?" Russ said with an effort, as they stood on the dock. Williams nodded.

"I'm depending on you," he drawled, "to be my assistant on my vacation."

"And you, Duke, when are you stepping northward?" Russ asked him, and their eyes held steadily.

"Well, now that's hard to tell," the Duke said softly as he crushed Russ's hand. "I hate to make plans because I never know from one day to the other what I want to do. But I'll be seeing you around. Sometime, some place, somehow. *Buenos noches, adios,* and all that sort of thing."

RUSS walked up the gangplank and on up to the top deck. He leaned at the rail, taking a last look at the spot he was leaving with so many memories in his mind. The plazas of Tampico were alight, and across the river the terminal of the Texas Company was visible in a thousand winking lights. Down the river, the tank farms loomed vaguely, and from tiny illuminated boats on the water's surface came the tinkle of guitars and the liquid laugh of childlike Mexicans returning from an evening's holiday.

Suddenly the army pilot's stalwart body straightened and he strained his ears to be sure that he heard correctly. From far down the dock, ringing clearly above the noises from the river and the town, came the strains that were never to be erased from Russ's memory. It was Duke Delroy's voice, riding on the river breeze:

"Ah've give up de debil, an' Ah've give up mah fun,
Ah wants to rest in Heben when mah work's done,
Pharaoh's army got drownded,
Oh, Mary, don' you weep."

There was a funny tightness in Russ's chest and a suspicious film over his eyes, but he was grinning nevertheless.

"He'll get no rest short of heb'n—not that boy." Russ told himself, as he walked toward his stateroom. "But I think I'll get mine—now."

THE END.

The Diving Fool

(Continued from page 8)

room to undress, the coach called me. He led me up to his office, where he drew up a second chair and motioned me to sit down in it.

For a couple of minutes he scribbled busily on a sheet of paper, and then he shoved it over to me.

"Barring upsets," he said, briefly, "that's how things will stack up at the Conference meet."

This is what he'd written on the sheet:

	Lawrence	State Col.	Others
200 yd. relay	5	3	3
50 yd. dash	3	5	3
100 yd. dash	3	5	3
150 yd. backstroke	3	2	6
200 yd. breast stroke	3	2	6
440 yd. swim	2	8	1
300 yd. medley relay	5	1	5
	24	26	27
Dives	—	—	—

"We'll take first in the fifty and hundred, and we'll sweep the four-forty," he said. "Lawrence will take the relay and push us in the dashes. We haven't got a chance in the medley—we may take a fourth. Which means that the dives will tell the story. You and Sunny—" he paused.

I knew how badly the coach wanted to win the Conference. The athletic council was disposed to regard swimming lightly. And now, with the plans for the new field house under consideration, swimming at State College was at the crossroads. I had two visions—one of a spacious pool, built to accommodate thousands of rooters; another of an ordinary pool, around which a narrow bank of spectators sat hemmed in by walls.

"I haven't said much to the athletic council," Scotty said, reading my thoughts, "because I wouldn't have been listened to. But if we win the Conference, I will talk—and I'll get a respectful hearing."

I cleared my throat huskily. "Looks like it's up to Sunny and me, doesn't it?"

My face must have been kind of pale and long, because the coach grinned. "It is—but don't take it too seriously. Just give me the best you've got. And see if you can't work that self-conscious fear out of Sunny. He was utterly lost at Tech. It was a new and terrible experience for him."

SUNNY and I did hard labor the first week. We bounced and bounced off the end of the springboard until the bottoms of our feet were sore. On two occasions Sunny was his own buoyantly unconcerned self, and his glorious diving made us jubilant. But during the second week, when every practice brought the crisis closer, he seemed to lose his grip. He became uncertain—hesitant—fatal traits in diving! I plugged along at my usual mediocre level.

The coach looked on, urgently cheerful. But when I caught him off guard, his face was drawn and his eyes a bit worried. The day before we were due to leave for Lawrence, he called me aside.

"You and Sunny," he grinned, "have about wrecked my composure. At times Sunny is a marvel—at other times he flops unaccountably. And you—well, if I didn't know you, I'd say you weren't trying as hard as you might."

He paused a moment, and then went on: "We've *got* to have that first in the dives. I've decided to take both of you liabilities to the meet, and I want you to talk Sunny into the title."

He waited a moment, while I looked at him in blank amazement. Was the coach going nutty? His eyes didn't look a bit wild—just blazing with purpose. He went on—

"Talk him into it! Take his mind off the ordeal. Get that joyous look into his face."

"I—I'll try," I stammered.

The coach drew a long breath. "That's all I can ask. And if you *really try*—" he looked at me long and searchingly—"you'll win the Conference title for me."

I'd never seen three thousand rooters at a swimming meet before, and the sight almost unnerved me. We'd come through the preliminaries safely—Sunny and I—along with the dreaded Kramer of Lawrence, Marlowe of Tech and three others, and we felt good—until we saw that crowd. Lawrence has an immense new field house and a tremendous pool, 150 feet long and 60 wide. Around it rise banks of seats almost to the high steel girders. They were jammed solid with spectators.

We sat down on a bench at the diving end of the pool, feeling awed and shriveled in our bathrobes.

"Thank the lord," chattered Sunny, "the d-divers don't come until next to the last."

I was too busy wondering how I could talk Sunny into his natural self to answer. At the moment, the job seemed utterly beyond me.

We had stayed in the locker room until the last minute, and the meet got under way almost immediately after we entered the pool. Before I knew it, the relay swimmers had thrown off their bathrobes and stepped up to the edge. They were lifting their feet gingerly and rubbing their arms.

I'll never forget that relay. One hoarse, unpunctuated roar accompanied the swimmers from the first lap to the last.

Lawrence led all the way. Frank Richardson, our last man—he's the fastest dash man in the Conference—made a heroic effort to overtake the purple swimmer and lost by inches. Lawrence 5, State 3. The other schools weren't going to count in this meet. It was a battle royal between Lawrence and State!

We took only a fourth in the next event—we haven't a good breast stroke man—and Lawrence took first. That made it 10 to 4. I shivered and blamed the cold. Attendants had opened most of the high windows, much to the comfort of the rooters and the discomfort of the swimmers.

Good old Frank Richardson took his expected first in the fifty, and Crandall took an unexpected fourth. Six points in one splash! Lawrence got only three. State 10, Lawrence 13.

The long 440 grind was all ours, because we have the best distance men in the Conference. First and second place put us ahead 18 to 15. I noticed that the tense lines around Scotty's mouth had relaxed a bit.

We were shut out of the 150-yard backstroke, while Lawrence pulled a second. That evened the score at 18-all. I felt almost exhausted with the tension. The crowd was hoarsely mad. I looked around at Sunny. His face was utterly blank, but his eyes told me he was having bad dreams. My throat was sticky and I didn't dare talk—but I had to. Only the hundred, now, and then the fancy dives. State College needed that big pool! Time for me to start talking Sunny into the championship!

I felt like saying to him: "Snap out of it, you lily-livered, palsied pup!" But I felt that way, too—lily-livered and palsied. I clenched my trembling fingers and squared my shoulders.

"Gotta be light-hearted—gay!" I gritted between my closed teeth.

"Wh-what?" queried Sunny.

I laughed aloud. I hadn't meant that remark to be heard.

"I was just saying," I grinned to Sunny, "that you and I are letting this thing get our goats. And that isn't right."

I laid a calm hand on his bare knee and felt the tremor of it. I was stronger, cooler, now, and some of my new-found composure must have passed to Sunny, because he smiled faintly. I nodded reassuringly to the coach, who was looking my way tensely.

The hundred was called. The squad leaped up and patted Frank Richardson on the back.

"Go to it!" we all muttered to him. I was tickled to see Sunny on his feet, too.

FRANK won the hundred in 55.2, with the Lawrence man a body length behind, and the rest trailing. State 23, Lawrence 21! Lawrence would most certainly win first in the medley relay, and we wouldn't take more than one point. That would leave it 26 to 24, in favor of Lawrence—not counting the dives. We needed at least six points in the dives—Sunny's first and my fourth—to win!

"All out for the fancy dives!" bawled the announcer.

Sunny's face paled.

"Come on, Sunny," I said, calmly. "You need a bath—and it's Saturday night."

The squad milled around us, helping us off with our bathrobes and slapping us on the back. I hoped fervently that Sunny wasn't taking to heart their tense, eager expression. Every face said: "It's up to you!"

Diving is a terrific test of a man's nerves! When your muscles are crying out for vigorous action, you've got to restrain them. Thousands of eyes are glued on you, and you alone. You're the star performer, in a spotlight. And the slightest misstep, the least error in timing may cause your downfall!

Sunny's voice called me out of my nerve-racking thoughts.

"Are we going to t-take a practice dive?" he asked.

I squared my shoulders. I had a job to perform. *This meet was up to me!*

"No," I replied seriously. "I'm an iggle."

"Wh-what?"

"I'm an iggle," I repeated, "and an iggle never dives. He swoops. Swatch me."

Without looking back at Sunny, I walked up to the board and took my first practice dive—a swan. As I climbed out of the water, I noticed the coach looking at me with a confident smile. I walked back to where Sunny was standing, rubbing his thighs.

"I tried to swash that beam up there with my tail feathers," I told him, "but I missed it. Heck."

Sunny grinned at me for the first time that night. "No wonder," he said, starting for the board. "Your tail feathers have moulted."

My heart bounded. Sunny at least had a comeback! I watched him eagerly as he poised and started forward. He sailed up—not quite so high as I could have wished, but still, better than I had expected.

I racked my brains for my next line. As he came up to me, dripping, I smiled.

"You swished it," I said, "with a swoop-

ing swish. I'm going after it with a swipping swoop."

A little weak on that remark, I thought dolefully, as I strode up and took my second practice—a running half gainer. Streaming wet, I clambered out and walked back to Sunny, putting on an expression of mock disgust.

"I swipped too hard," I grunted, "and got all dusty."

"I swish I could swoop like that," he said, grinning.

I chuckled joyously. Kramer, the Lawrence diver, walking past us to the board, looked at us in dumb amazement. After Kramer, Sunny started up.

"If you get dusty, swoop down and swash," I cautioned him.

"All right," he chuckled. "Here goes for a swishing swoop."

"A swipping, soaring swoosh!" I encouraged him.

I could have wept out of pure joy. His one and a half was a thing of beauty, and I knew then that everything was all right. There'd be just one more crisis—when the clerk called Sunny for his first official dive. The nonsense chatter—silly as it seemed—was working on Sunny's naturally buoyant spirit.

"You fellows had enough practice?" an official near us inquired.

We nodded. I felt a tightening in my throat.

A man with a megaphone walked to the edge of the pool.

"The next event," he sang out to the crowd, "is the fancy dive. Each man is required to do four dives—the plain front, the plain back, the front jackknife and the back jackknife. After that, he does four difficult dives of his own choosing! First man up, Kramer of Lawrence. The plain front!"

Kramer did a good dive—too good for our comfort—and won a storm of applause.

"Ray! State College!" bellowed the announcer.

This, for me, was the critical point. Sunny's first dive!

"That beam, iggle," I whispered to him solicitously, "is still dusty."

"'Sawful," he whispered back, "I'll swish it."

SUNNY went so high on that dive that I was afraid he'd have to break. But he didn't. At the very top of his dive, his feet rose gracefully toward the ceiling, his back perfectly arched every moment. And that smooth entry into the water! Golly!

He walked back to me with a light-hearted grin glistening through the water streaming from his hair.

"Did I get it?" he asked.

"Every speck," I gurgled. "I'll go up and polish it." I felt supremely confident now. Sunny, I felt sure, was going to come through!

And I was right. Every time he stepped on the board, he grew better. Not an uncertain step. No sudden hesitancy. And, all through it, we played our game. The crowd, the sober-faced judges with their pads, the loud applause meant nothing to us. We were too intent upon sweeping that skyward beam immaculately clean. Weren't we iggles? Iggles can not be bothered with mundane things. They dust the mountain tops!

I looked over to where our squad was sitting, noticed the look of awe on Frank Richardson's face and the happy smile on Scotty's lean countenance. My heart leaped fiercely.

Sunny's last dive—that marvelously sinuous thing of flashing turns called the gainer one and a half—brought forth an unrestrained outburst from the crowd. Not another diver had done so well—I felt sure of it.

Dripping and content, our play of iggles ended, we walked back to the bench. The coach bounded forward to meet us.

"Fine work, Sunny," he said warmly. Then he turned to me.

"Art," he grinned, "I didn't think you had it in you."

"It worked," I bubbled happily. "Didn't it?"

The coach just looked at me, his face all alight. The rest of the squad pulled us to the bench, wrapped our bathrobes about us, and rubbed our legs and arms with towels, meanwhile babbling joyfully in our ears.

I didn't respond to their outburst because I was trying to dope the status of the meet. The results of the dives would not be announced until after the medley relay was finished—that was the last event. Sunny's first and my fourth—if I was that lucky—would give us six points. Kramer of Lawrence had most certainly won second. That would make the score 29 to 24 in our favor. Lawrence would win first in the medley. 29 to 29! We had to have a fourth in the medley!

But we didn't get it. We were shut out completely. I felt sick at heart. That glorious diving—for nothing. . .

"While we're waiting for the results of the fancy dives," called an announcer, "I'll read you the status of the meet so far. Lawrence 26, State College 23—" As the announcer read off the other scores, a clerk walked up to him with a sheet of paper. I gripped Sunny's leg, hard.

"Results of the fancy dives!" bawled the megaphone. "Ah-ha! You'd never guess!"

I felt exultant. That was Sunny!

"First——" came from the megaphone "—Weed, State College, 108.4."

I almost fell off the bench. Me—me? A wave of hand clapping pelted the walls.

"—Second, Donald Ray, State College, 103.2—"

Another wave of hand clapping. Unaware of what I was doing, I got to my feet.

"He's—he's cockeyed!" I yelled. Unfortunately, I had picked a dead calm in which to give utterance to my thoughts. The crowd tittered.

"I'm cockeyed!" the announcer singsonged. "I'll have to have my eyes examined. Third, Kramer, Lawrence, 99.8. Fourth, Marlowe, Tech, 94. Fifth, Hendricks, Cole, 91.5. Final results of the meet: State College 31, Lawrence, 28—"

I didn't hear the rest of it, because about eight husky swimmers were trying to pull me apart. Still dazed, I jerked myself free and walked to the coach. It wasn't right, because I'm just not good enough to beat Sunny and Kramer!

"Sunny won those dives, Coach," I protested. But he just grinned at me. I felt the need of explaining myself.

"It worked out just as we planned," I elaborated painfully. "I did what you said—talked him into it—"

"You talked yourself into it, you diving fool, you," laughed Scotty. "Haven't I been telling you all season you had it in you?"

I just stared at him, and if I looked as dumb as I felt, I must have been a sight. *Me.* Conference champion?

"Nope," I said, positively. "There's something wrong."

Sunny had his arm around my shoulder, and he tightened it, grinning.

"You've never seen yourself dive, iggle," he chuckled.

MODEL A FAMOUS PLANE

Make a flying model of it. Or build it as a scientific miniature. Mr. Hamburg is going to tell you, next month, how to do both of these things.

The plane is the Stinson-Detroiter, the famous monoplane that took Schlee and Brock from Detroit to Tokio in record time. It is built in the factories of Eddie Stinson, League vice-president. In the February AMERICAN BOY you'll learn how to construct a flying commercial model of the ship, and how to build a scale model. It's a corking ship, this Stinson. You can use your flying model in commercial model contests; you can enter scale model contests with the exact-scale miniature.

Plans for both models Next Month

Contest Fans Rate High as Reporters!

Herewith, the Results of Our November News Writing Contest

GOOD men—first rate reporters—will be applying for jobs at newspaper offices a few years from now, judging by the response to our news writing contest, announced in November.

Nearly a thousand entries! Keenly humorous. Complete. Observant Vividly told! Stories that would gladden the heart of any jaded city editor.

You remember the picture. It shows a turkey, roosting on a telephone wire high above the corner of Locust and Cherry Streets, Brookville. Below, on a platform, is the irate auctioneer who wants to sell the turkey for the benefit of the local chapter of the A. M. L. A. The fire department, a football squad, a citizen with a fishing pole, and others, are striving vainly to capture the big bird.

We asked you to study the picture and write us a news story, making it as interesting as possible and telling all the details you thought were important.

The editors worked far into the night, and finally emerged with the winners. John H. Harwood, (15), Mt. Clemens, Mich., earns first prize. His story is clearly told, has good humorous touches, and leaves out no essential fact. John Peele, (13). Elizabeth City, N. C., takes second with a highly humorous write-up that contains one or two minor errors. Walter C. Peach, (16), Maplewood, N. J., in third place, has a thoroughly professional write-up that makes good reading, but he's left out two facts—the part played by the football team and the efforts of the boy with the sling-shot.

Here are the honorable mentions—good ones (not listed in order of merit) that we wish we had the space to print: Robert Balsley, Leland, Ill.; Kenneth Bickford, (15), (address not given); Albert Bodey, (18), Columbus, O.; Eyolf Bronner, (17), Manhattan, N. Y.; Frank Doolin, (16), Lutesville, Mo.; Howard L. Gillespie, (17), Wymore, Neb.; James Haddan, (14), Pringhar, Ia.; John O. Hubler, Dayton, O.; Eva G. B. Keen, (18), La Romana, Dom. Rep.; Burton Lyons, (13), Manassas, Va.; William H. Molles, Jr., (14), Shrewsbury, Mass.; Bud McGhaney, Wyola, Mont.; Dell Paskett, (8), Henefer, Utah; Ralph G. Peterson, (19), Ordway, Colo.; Robert O. Ritzman, (15), Myerstown, Penn.

Thanksgiving Daze

By John H. Harwood, (15), Mt. Clemens, Michigan.

First Prize.

A fat 40 pound turkey, perched comfortably in a maze of electric wires, caused a runaway, the disruption of a football game, the turning out of the fire department in full force, and general confusion here this afternoon.

The big corn-fed fellow was to have been auctioned off to the highest bidder for the benefit of the local chapter of the A. M. L. A. by J. Morse, president of the Brookville Chamber of Commerce, from their platform erected at Locust and Cherry Streets. Everything went well until somehow the turkey escaped from his slatted cage and flew to the electric wires above. Then the fireworks began.

Everyone within three blocks who was of sporting blood tried to get his hands on the turk. Mr. Morse shook his auctioneer's gavel irately. A small newsie, carrying copies of the Brookville *Eagle*, took out his pet sling shot and opened fire. Unfortunately, one of the missiles from the sling shot missed the target and flew across the street, striking Dr. Brown, the dentist, in the eye. At the time Dr. Brown and his assistant were peering forth from the windows of the dental parlor on the second floor of the Hewitt Building.

As a large crowd assembled, several local flagpole sitters clambered out on the flagpole of the Hewitt Building, but the turkey was still out of reach.

Then Hose Company No. 1 arrived on the scene with a loud clanging. When the hose was attached the valiant firemen tried to wet the turk down. Captain Jones with nozzle in hand did his best, but the water pressure proved to be insufficient. The holes in the hose, however, did squirt several bystanders.

At the time Cobb High was leading Benton gridders 7-6 in a football game on the athletic field opposite Benton High, but when both teams saw the near-by excitement they forgot everything but the turkey. One of the players, who still had the ball, heaved a nice pass.

Meanwhile pandemonium raged. The crowd cheered the hunters. A local angler got out the old fish pole and after he had climbed an electric light pole he made a nice cast, the only difference being that he was angling after turkey instead of trout. A popcorn wagon stampeded, onlookers got wetter from the hose, and Mr. Sherman, the grocer, was stranded halfway up his awning.

But all efforts proved to be of no avail and when the *Eagle* went to press at five o'clock this afternoon Mr. Turkey still reigned supreme.

The Terrible Turk!

By John Peele, (13), Elizabeth City, North Carolina.

Second Prize.

THE Turk is in command of Brookville. No, not Constantinople, but Brookville.

Well, not the cruel Turk of history, either. Just the homely, everyday Turk of modern times.

He's fat and forty (pounds in weight) and his head is neither bloody nor bowed. Serenely he sits on the telephone wires at the corner of Cherry and Locust Streets and majestically he looks down upon the foolish machinations of silly human beings who are endeavoring to effect his capture.

It happened thus: A forty pound turkey escaped from the arms of the distinguished auctioneer, J. Morse, president of the Chamber of Commerce, this afternoon at 3:20. The turkey was being auctioned off for the benefit of the Brookville Chapter of the Airplane Model League of America.

The auction stand stood near the corner of Cherry and Locust Streets opposite the Hewitt Building. The president of the Chamber of Commerce as auctioneer had begun an eloquent speech. He said:

"Behold this noble bird. See his rich coloring, his magnificent wings which place him in rank little lower than the angels themselves. Think of the noble cause to which this bird is martyr—"

Whrrrrrrrrrrrrr!

There was sudden static in the auctioneer's speech. Mr. Morse almost toppled over backwards. The crowd gave one great gasp as the martyr, the near-angel, the wonder bird, made one desperate lunge upward and alighted on the telephone wires overhead.

There was consternation! There was action! There were thrills aplenty!!!

The fire alarm was turned in. Hose truck No. 1 rushed to the rescue. The firemen dashed around merrily, endeavoring to turn on the huge stream of water. The hose leaked and all the water did was to scare Tony's horse. Away rushed horse, popcorn wagon, and Tony, but the turkey remained undisturbed.

A newsboy for the Brookville *Eagle* tried to bring the bird down with his trusty sling shot, but instead he hit Dr. Brown, whose office is above the Sherman grocery store. The turkey leaned over to see the fun and smiled a turkish smile.

An enthusiastic fisherman tried to catch the turkey with rod and reel.

A football player from the Benton-Cobb game threw a pass to Mr. Turkey, but he muffed it.

Several good citizens quickly became old soaks from the leaky hose. Captain Jones of hose truck No. 1 was so exasperated that he reproached the turkey in long, loud tones.

The excitement was increasing rather than diminishing as this edition of the Brookville *Eagle* went to press, and the turkey was still master of the situation, proudly and disdainfully looking down at the commotion beneath him.

Turkey's Up

By Walter C. Peach, (16), Maplewood, New Jersey.

Third Prize.

FORTY pounds of turkey broke loose from its crate here yesterday afternoon and treated the residents on and around Locust Street to a wild bit of excitement.

The big bird was to have been auctioned off by our own Mr. J. Morse, president of the Chamber of Commerce, and the proceeds were to have gone to the new Brookville Chapter of the Airplane Model League of America. As Mr. Morse was about to open the bidding, the turkey escaped from its prison and stiffly flew to the electric wires above. From its high perch it placidly viewed the crowd gathering about the frame platform in the street below.

The escape of the turkey was the beginning of this city's first big game hunt and, incidentally, proved the climbing abilities of some of our worthy citizens.

One ingenious young fellow disappeared from the scene and returned a few minutes later with a trout rod. With that instrument in hand he ascended the nearest telegraph pole and attempted casting for the bird.

Another gentleman tried to reach the prize by climbing out on the Hewitt Building flagstaff that overhangs Locust Street.

Mr. Sherman, our grocer, essayed a feat that passed unnoticed by the gathering throng. In his desire for a quick exit he dropped from a third story window of the building on to the awning of his store. But all of these efforts were in vain.

In desperation someone turned in a fire alarm. Our brave fire-fighters arrived twenty minutes later with their ultra-modern hand-drawn engine and immediately unrolled and connected the hose. The hydrant was turned on and two minutes later a three-foot jet of water emerged, which, in the competent hands of Captain Jones, sprayed a nearby horse. The startled animal bolted down the street, a popcorn vender's wagon swaying at his heels. After a wild run he was caught and subdued.

More water shot from various points in the leaky hose than from the nozzle, and this resulted in a great increase in the business of the town tailor, John White.

The turkey was finally coaxed down from the wires just as the shadows of evening were falling. It was accomplished by the simple expedient of placing some tempting food in the bird's sight.

When the Tusker Went Mad

(Continued from page 25)

was progressing step by step, lifting his foot each time as high as his body would permit! A regular circus stunt!

The killing of the third mahout was tragic. It happened on the "bund," or artificial embankment surrounding the water tank, where the animal retreated occasionally to drink. A few keepers, emboldened by the reward offered for his capture, were making last desperate efforts to get near enough to throw a rope round his legs. The elephant kept scattering them by charging repeatedly, and finally went down the slope of the embankment for a drink. One of the keepers, with extraordinary daring, ran down after him and caught his tail, thinking the beast—occupied with shaking him off—could be more easily roped by the other natives. But the keeper had forgotten that the tip of Bill's tail had been torn off by a wild elephant, and the bristly tuft to which the unfortunate keeper might have held securely was gone altogether!

BILL waded into the water dragging the man after him. The tail became wet and slippery. The unhappy keeper found he could not hang on to it. Lower and lower he slid until presently he fell into the shallow water. Before he had a chance to escape, the elephant swung round with lightning speed, and seized the man with his trunk.

The final scene was dreadful. The terrified keeper knelt in the shallow water at the elephant's feet with his hands clasped high above his head screaming: *"Ai yo, Aliya!"* ("Mercy, elephant!") But there was no mercy. The great brute knelt down, and curling up its trunk, butted the man with its huge head until he was nothing but a mass of broken bones and flesh. Then, seizing the lifeless body, Bill threw it far up on the embankment.

Meantime, mahouts fired at him from all sides, but they could reach no vital spot. One shot by the owner of the bungalow, fired from a distance of about forty yards, hit the elephant high in the shoulder, and this nearly cost the marksman his life, as the enraged brute went after him like a whirlwind, sweeping down fences like so many ninepins! By luck, the man escaped.

The wounds he was now bearing in his trunk and legs maddened Bill still more. He decided to start house wrecking. He commenced on a temple, near at hand, and demolished one wall and part of the roof. Then, hearing voices in the priest's house near-by, he dashed over to that, pulled down several veranda posts, and butted a huge hole in the wall of the room where a crowd of refugees were huddled together terror stricken. Fortunately, his attention was distracted before he could attack them.

By this time he was limping on three legs, and after wrecking the temple he seemed to lose his desire to do further mischief. The surprising and unexpected end came soon after.

Bill came strolling forth from the jungle and stood waiting. A man who had been a former keeper—brought from distant parts to see what he could do—tried to coax him into submission by a method of his own. Bearing a bunch of bananas, he climbed a tree and began to chant certain Cingalese verses with which, in days gone by, he had been wont to soothe his great charge. Bill listened attentively. The man threw down a banana. Bill ate it gently — and the others as they were thrown. Then he was instructed to go away — to turn — to come back. He obeyed all orders, at once. Finally the keeper said, "Give a back!" The great brute knelt, the man leaped on his back, and the truant was led away to captivity.

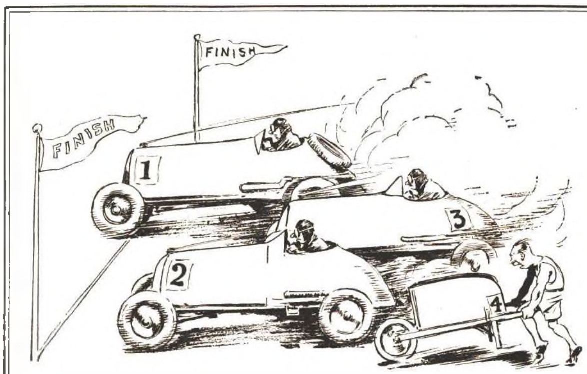
IOISABBROTPL

Know what that means? Then *skip* William Heyliger's story

INITIALS ONLY

You *don't* know? You're mystified? Then *read* it—next month—it's about

KIDNAPERS



How Do They Finish?

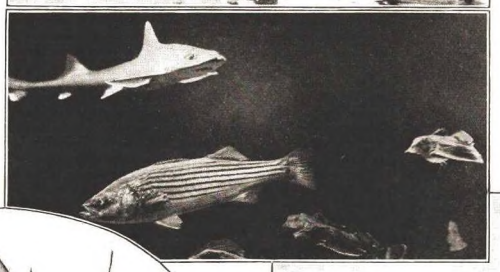
WHICH story in this issue races across the line winner? Put the best yarn in the leading auto, driven by the famous Oley Barnfield. The second yarn in Number Two, piloted by Eddie Rickensmacker. The third best in Number Three, driven by Ralph de Papa, and the fourth best in the wheelbarrow valiantly trundled by that renowned marathon runner, El Woofi.

Send your ballots to the Best Reading Editor, 550 Lafayette Boulevard, Detroit, and he'll find you more stories of the same kind. These ballots *help.* (Robert Wrege, New Albany, Indiana, submitted the idea for this ballot. For other ideas that we can accept, we will pay one dollar.)

They Shop in the Ocean

How the Scientists of the New York Aquarium Satisfy Ten Thousand Appetites

By Boyden Sparks

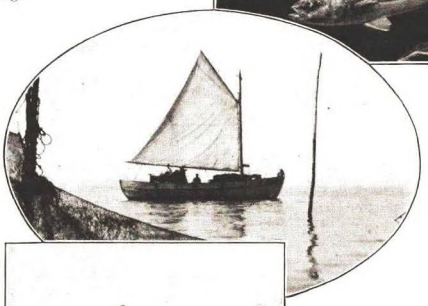


Can you pick the shark, the striped bass, and the sea robin? Ocean shoppers have stocked the New York Aquarium with more than ten thousand queer citizens.

"YOU can't fool a sea horse."

And you might as well not try, when it comes to feeding this odd little salt water animal, say the men at the New York Aquarium whose business it is to keep the marine zoo stocked, its finny inmates well-fed and happy and the dozens of display tanks in apple pie order.

"No, sir." It is C. M. Breder, one of that rare species of scientist known as aquarist, speaking. "You can't fool a sea horse by trying to feed him dead food. He may be only three inches long, but he's mighty particular about having his dinner served up to him live and kicking."



They go out with nets and gather not only fish but living food for fish.

Every haul may mean a rare find!

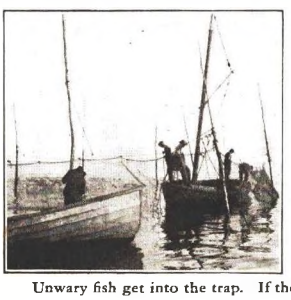
The sea horse isn't the only fish at the Aquarium that is epicurean in its tastes. Getting the right kind of food for the ten thousand water animals, from the big sea lion to the tiny sea horse, is almost as big a problem as obtaining rare, unusual specimens to entertain and instruct the crowds of visitors who gaze at the tanks each day. It takes a staff of 26 men and women to run the Aquarium.

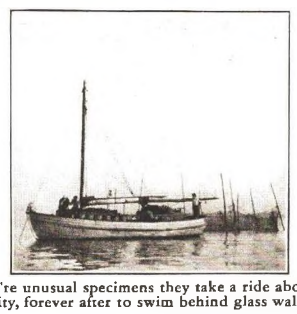
Not many people know that the big, roundish, red-brick building, there at the foot of Manhattan Island—right on the water, with Battery Park at its front door—was once a fortress, nor that its walls on the sea side are solid concrete, nine feet thick. I'm going to give you a glimpse of the Aquarium, before I tell of a specimen-collecting trip Dr. Charles Haskins Townsend, director, allowed me to take with him and his men, and finally of the way they feed and care for the inmates, big and little.

The Aquarium is one immense room, lined with glass-fronted tanks and redolent of fresh, clean water. There are more than a hundred tanks—one row all around the building on the ground floor, another on the balcony—and five big white-tiled pools in the center of the floor, under the dome. The amiable old sea lion occupies one of the pools; the others are given over to turtles bigger than umbrellas, horseshoe crabs, lobsters and fish of a dozen different kinds. There is lots of light, and plenty of ferns and green things around. With the staff of 26 to care for these aquatic animals, and all these other advantages, you can readily see why any fish would be delighted to live there!

Most of the fish, and crabs, and eels, (which are also fish), and turtles that find homes at the Aquarium are brought in by the little 35-foot auxiliary sloop *Sea Horse*. The *Sea Horse* makes regular trips out along Sandy Hook, and down the Jersey coast, and all around New York Harbor, looking for specimens to put on display and for food for the specimens. It was on one of these little trips, when Dr. Townsend had permitted me to go along, that I was awakened the first morning out, with dawn chasing night to the west, by the aroma of frying bacon.

That bacon was just about two feet from my nose, for the little forward cabin





Unwary fish get into the trap. If they're unusual specimens they take a ride aboard the sloop *Sea Horse* to New York City, forever after to swim behind glass walls.

of the *Sea Horse* was fo'c's'le as well as galley. Dr. Townsend, in charge of the cruise, was cooking the bacon, and he warned me to roll out. He is as salty a scientist as ever lived, and on the *Sea Horse* things must be done shipshape.

I was out in an instant, for a good daylight look around the vessel. She was a gray-blue little craft, with two cabins—ten-foot galley-fo'c's'le forward and seven-foot engine room aft—and her well amidships. The well is the unique feature of the *Sea Horse*. It consists of an open space in the center of the boat, extending down clear to the hull—and bored full of holes! They're small holes, about the size of a quarter, and they permit fresh sea water to flow into the well as the vessel moves along. Thus, when new specimens are imprisoned in the well, they're kept alive. Before 1920, when the *Sea Horse* was launched, specimen collecting was attended by disheartening losses in transit, as the captives had to be transported in small tanks carried in boats or wagons. Unless the water was constantly "aerated" by bubbles released below the surface or by continual splashing, the fish usually died.

The *Sea Horse* had five aboard her that trip—Dr. Townsend, Breder, Callisen (who was a Princeton graduate in spite of the fact that, with his bare feet, he looked like any other harbor boatman), an engineer and myself.

We hadn't yet finished that bacon when Callisen steered us into the lee of one of the big "pound nets"—so called because they impound fish as a dog pound holds stray dogs. Pound nets are submerged mystic mazes of tarred netting—fish swim into them and can't get out—and they're used by food fishermen. In this particular net was the boat of the owner, and his crew was busy hauling the net to the surface, exposing a flapping, silvery mass. These were taken aboard the fishing boat in a scoop net.

DR. TOWNSEND was off in our dory at once, to dicker with the fishermen for odd specimens no good as food, and to buy marketable fish he needed for his tanks. Soon he returned, the iron cans in the dory containing a couple of sea robins with their funny "ambulatory fins" like elephant's ears, some toad fish, a few small flounders and three or four small creatures about the size and shape of a lead pencil, except for their heads, which resembled that of a sea horse.

"Pipefish," identified Breder. "They're relatives of the sea horse."

At the next pound net, Dr. Townsend invited me to go with him in the dory. They let us row right into the net and alongside the fishing boat. There friendly fishermen in yellow oilskins called greeting to Dr. Townsend.

"Some spider crabs forward if you want them," offered the enormous weather-beaten skipper.

"We want them all right," accepted Dr. Townsend. "There isn't anything you pull out of the water that people don't like to see."

"Well, I wish you would take these blasted mossbunkers that keep good fish from running!"

"Wish I could. But they die too quickly, even in the well of the *Sea Horse*."

Mossbunkers, I learned, are menhaden, an inedible dwarf relative of the silvery tarpon. Their chief use is as fertilizer, and fishermen hate them.

The floor of the net, with its flashing, squirming cargo, was being brought to the surface, and Dr. Townsend's eyes kept darting here and there, looking for likely specimens.

"That's a splendid weakfish," he exclaimed. "We'll buy him." And for half an hour he was eagerly collecting specimens—buying those that the fishermen would have sold at market, and being given anything else he wanted. There were croakers, the fish that grunt; puffers, queer fish that showed their resentment by filling their skins with air until they looked like spiny footballs—"a natural protective device, so that other fish can't bite them," Dr. Townsend explained; a dogfish, or small shark; a huge horseshoe crab with its long spiny tail; a dozen additional specimens.

We returned to the *Sea Horse*, and Dr. Townsend dropped all the specimens into the well. The puffers floated for a moment, then deflated and sank to swim about their new quarters.

"Time to seine the beaches," Dr. Townsend said, a little later. We had been cruising over the "Continental Shelf," that broad and comparatively shallow stretch that extends out for miles from the Atlantic coast. Now we piled a 300-foot seine in the stern of the dory, loaded in galvanized iron tanks and left the *Sea Horse* riding at anchor.

Then came the business of laying one end of the long net on shore, and rowing the dory in a big semi-circle, paying out the net behind it. When the other end was brought back to shore the net was pulled in—and there was a catch. There were plenty of crabs—blue crabs, brown spotted lady crabs, hairy-legged spider crabs and many others. And by the time we had made enough casts of the net to satisfy Dr. Townsend, we'd brought in flounders, puffers, blowfish and lots of others. The crabs were taken along as food for the specimens.

"Not so good to-day," complained Dr. Townsend, looking into the teeming well. "There's room in there for a twelve-foot shark."

But to me it looked like a good catch, with the dogfish swimming disdainfully past the flat, iridescent butterfish, and the swarm of other specimens. I was looking eagerly for all the fish I'd seen taken during the day, and one was missing. Where was that big weakfish that—

"Dinner!" called Dr. Townsend suddenly, after we'd stopped at the *Sea Horse's* private lobster pot and taken forth a few green-clawed crustaceans. And the mystery of the weakfish was solved. Dr. Townsend had fried it!

That's the ordinary cruise of the *Sea Horse*, except that some of its little voyages bring back more valuable specimens. On a typical trip the catch may be of any of these varieties: smooth dogfish, fine dogfish, sand shark, skate, sting ray, cow-nosed ray, sturgeon, eel, killifish, bill fish, stickleback, pipefish, mullet, sea horse, striped bass, white perch, sea bass, triple tail, pigfish, porgy, sailor's choice, weakfish, silver perch, spot, croaker, kingfish, blue fish, crab-eater, pilotfish, jack yellow mackerel, thread-fin, moonfish, pompano, cunner, blackfish, triggerfish, filefish, orange filefish, rabbitfish, puffer, spiny boxfish, sculpin, sea robin, shark sucker, toadfish, hake, tomcod, ling, codling, fluke, flounder, windowpane (a translucent flounder) and angler.

It is not only from the *Sea Horse's* explorations that the Aquarium gets its fish. Fresh water fish come from hatcheries and from inland lakes and streams. Tropical fish are brought up from Florida waters, in big eight-foot wooden tanks. One of the Aquarium's staff is entitled "collector," and he makes trips each year to obtain unusual fish that don't inhabit New York waters.

Another important member of the staff is the man who visits the salt swamps of the Jersey coast to obtain the only kind of food that sea horses will eat. It's important to arrange sea horses' diet carefully, for (although they were once plentiful in New York Harbor) they're hard to obtain in quantity, and they're about the most popular exhibit the Aquarium offers.

So thousands of tiny little crustaceans about the size of a lead-pencil point—their name, Breder said, is *Gammarus*—must be procured to satisfy the sea horses' appetites.

"And they have to be brought in alive," Breder went on. "Many times I've seen a sea horse swim up to a *Gammarus*, and look him over carefully, and seem to be just about to gobble him up, when the *Gammarus* gives an expiring kick and dies. Right away the sea horse turns up his nose—no dead *Gammarus* for him!"

FISH often are very particular about their food. Many of them won't even eat salt water delicacies that you've often seen on your own table—they're more finical than humans. Angelfish and groupers, tropical fish, are specially careful about the quality of their meals; so are the bloodthirsty sand sharks and their hangers-on, the pilot fish.

"Don't let anybody tell you the old one about pilot fish guiding sharks to their prey," warned Breder. "Pilot fish don't pilot—they follow. When the shark seizes another fish and tears him to pieces, the pilot fish flashes in and makes off with the stray bits that the shark doesn't swallow.

"The same method is followed by the shark sucker, the fish with 'suckers' on top of its head by which it attaches itself to a shark and lets the shark do its swimming, as well as its food-gathering, for it."

Breder told the sad tale of the pilot or rudder fish which was undone by soft living in the Aquarium. Ordinarily the rudder fish is a flash of silver light much too fast for the shark's greedy jaws; he dashes up to the shark's table to seize a crumb and gets away before the shark knows he's around. But, put in a tank with the shark and fed regularly and amply, this particular rudder fish lost its caution. He came to consider the shark as no longer an enemy; instead of shooting past the dangerous rubbery nose of the big fish, he simply floated past. And then one day there was a twist, and a slash of white teeth—one less rudder fish.

The trips of the *Sea Horse* always furnish a quantity of food for the Aquarium—killifish, clams for the sheephead which crunches shells in his strong teeth, dozens of sea animals of no use as specimens. But most of the food fed to the fish comes from the market. Monday, Wednesday and Friday are feeding days, and for every feeding the market must be combed for choice herring, codfish, clams, shrimp, crabs, beef hearts and other delicacies. Cabbages and lettuce must be obtained for the turtles. And then the food must be cut up into chunks that will fit the mouths of the fish—for some fish are very bad-mannered, and bolt their food without chewing. Moreover, seaweed must be obtained for certain varieties, and live fish—minnows and killifish—for the muskellunge, pike and other meat-eaters that won't accept dead food.

Some of the fish are worse than babies with a bottle. They have to be coaxed to eat. The long slim green moray, a tropical eel, for instance. He has to be fed from a stick—the attendants hold each morsel up in front of him until he decides to take it. The voracious sand shark, a greedy, fierce fellow in the sea, often must be fed like the green moray when he is in captivity. Some fish will take food only while it's falling from the surface to the bottom, and some of the turtles and salamanders eat only at night.

The old sea lion is the champion gourmand of them all, and about the oldest inhabitant of the Aquarium, except for a few of the long-lived turtles, which have been in their pools nearly twenty years. The sea lion was once a performer, and amused thousands at Coney Island, where he bounced balls on his nose and juggled flaming sticks. In 1909 there was a fire which destroyed the big pavilion at Coney Island, and the sea lion was blinded in one eye by a falling firebrand. So he was moved to the Aquarium, where he has remained ever since, swimming 'round and 'round his big tank, seeming to wink now and then at the people hanging over the railing, and eating with great regularity his morning and afternoon rations of 15 pounds of cod or herring.

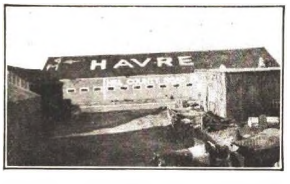
FEEDING the animals isn't all there is to caring for them. The salt water for tropical fish must be kept constantly at 70 to 72 degrees in temperature. Fresh water is supplied for inland fish. And a few salt water tanks are kept at bay temperature. The salt water must be fresh—not the "soup" of New York Harbor. So it has to be brought from the coast away from the city, and stored in big tanks.

There are reserve tanks that the public doesn't see, too. They are down behind the exhibition tanks next to the heavy wall, and they contain extra specimens and hundreds of minnows and killifish kept as live-food for the meat-eaters. The steady stream of air bubbles must be kept running to each tank—without the oxygen these bubbles contain every fish would die.

"Occasionally they die anyway," Breder told me, "and frequently there's nothing we can do about it. If we see them acting sick, or if they get wounded in any manner, we always try to help them. But you can't stick court plaster on them, or put splints on their fins as you would on a puppy's leg. About the only thing is to try germicidal baths. And then it's always a question as to just exactly how strong a bath each species of fish can stand—and whether it'll do any good anyway.

"When they do die, we have to replace them—that may be difficult," he went on. "But there's always something new to find in the sea—or to learn about fish habits. So the Aquarium will go right along. How about another specimen trip on the *Sea Horse* next year?"

Air Markers Are Growing!



AMERICAN BOY readers are helping to make the country safe for pilots!

The picture shows what you and your friends can do to help. The sign was painted by a Scout troop in Havre, Montana, under the direction of Frank Jestrab, Jr. The letters are chrome yellow, twelve feet high, and are easily visible to a pilot 5,000 feet in the air. The arrow gives the direction and distance to the nearest airport—valuable information in case of an emergency!

So far, readers enlisted in THE AMERICAN BOY Air Marking campaign have air marked twenty towns! The latest to finish are Maumee, Ohio; Vernon, Texas; Shelbyville, Indiana; and Viola, Iowa. More than two thousand are actively working.

Join the campaign—it's a good project for your airplane model club or your Scout troop. Fill out the coupon and send it, with a two-cent stamp, to headquarters and you'll get back a plan of attack that will tell you how to proceed.

When you finish the job, you'll receive an honorable discharge signed by the sponsors of the campaign. These men are: Herbert Hoover, Major General J. E. Fechet, chief, U. S. Air Service; Rear Admiral, W. A. Moffett, chief, Bureau of Aeronautics, U. S. Navy; Colonel Paul Henderson, president, Aeronautical Chamber of Commerce; Frank A. Tichenor, publisher of *Aero Digest* Magazine; C. M. Keys, president, Curtiss Aeroplane and Motor Company, Inc.; William P. MacCracken, assistant secretary of commerce for aeronautics; Grover Loening, president, Loening Aeronautical Engineering Corp.; C. S. "Casey" Jones, operations manager, Curtiss Flying Service; P. G. Johnson, president, Boeing Airplane Co.

American Boy Air Marking Headquarters,
550 West Lafayette Boulevard,
Detroit, Michigan.

I wish to enlist for service in the American Boy Air Marking Campaign. I enclose a two-cent stamp to cover postage on the plan of attack.

Signed .....
(Write clearly)

Street .....

Town .....

State..... Age.....

Stamps in the Day's News

By Kent B. Stiles


Saar 50 centimes carmine. Of new air mail set.


Germany 2 marks blue. A Zeppelin stamp.

THE new year dawns with assurance in advance that many nations are to issue new postage stamps in 1929. There is not room to mention here all of them, but the more interesting will be described from time to time as they appear. A few of those already definitely forecast, and reasons why they will be circulated, are as follows:

Australia is establishing a network of air mail routes, and a 3 pence stamp will be placed in use in April. Australia will put forth also a 1½ pence to commemorate the centenary of Western Australia. In Albania, Zog I will be crowned king in January or February. In Egypt, Pan-African Olympic Games will be held; and in February Prince Faruk, son of King Fuad, will have a birthday. France will stage an international philatelic congress at Havre. In Great Britain will take place another congress of the Universal Postal Union. In Norway, April 6 will mark the hundredth anniversary of the death of Henrik Abel, mathematician. Rumania will celebrate the 50th anniversary of the annexation of the Dobrudja. In Spain will be held an Ibero-American Exhibition. All these events will bring postal paper.


Uruguay 5 centesimos yellow-green.

In our own country February 25 will be the 150th anniversary of the capture of Fort Sackville, Indiana—the event that later brought the Northwest Territory into the Union and opened up the prospect of reaching the Pacific—and pressure is being brought to bear on the Post Office Department to issue a commemorative.


Above—Turkey 1 grouch bright rose.

"Molly Pitcher"

MEANWHILE Postmaster General Harry S. New recently amazed philatelists by having the inscription "Molly Pitcher" surcharged on our current 2 cent stamp. Last spring Representative Hoffman of New Jersey introduced a bill in Congress to authorize Mr. New to put forth an adhesive, of special design, to commemorate the Battle of Monmouth, in which Molly Pitcher fought, but the measure failed. Collectors then forgot the idea. June 28 marked the 150th anniversary of the battle. Along came Oct. 13, and on that date Mr. New notified postmasters that one week later there would be placed on sale the 2c overprinted with the nickname of the heroine of 1778.

Then, when the surcharged stamp appeared, with part of the inscription barely legible on some of the copies, Mr. New was criticized in the philatelic press for putting forth this makeshift commemorative nearly four months after the anniversary date and on the eve of a Presidential election at a time when New Jersey, in which the Monmouth battle was fought, was a "doubtful" state. The inference was that the Republican Administration was employing the postage stamp to cater to New Jersey voters.

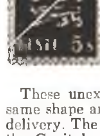
Whatever the motive, and regardless of the poor appearance of some of the overprints, the event was worthy of postal commemoration. It has been said that Molly Pitcher was a legendary character only, but in Carlisle, Pa., her name is inscribed on a tombstone as one "renowned in history" as the heroine of the Battle of Monmouth.


Dutch Indies. 10 cents on 12½c red.

On that June day in 1778 soldiers under General Washington, fighting the troops of the British General Clinton, were being overcome by the intense heat. "Molly," serving as a nurse, was carrying water in a pitcher. Born Mary Ludwig, she had married one of Washington's soldiers, John Hayes, an artilleryman who was serving his gun during the battle. He was wounded, and "Molly" took his place and fired a cannon. Her act was brought to Washington's attention and he made her a sergeant by brevet. "Molly" lived to be 79 years old and was buried with military honors.

25 Years of Aeronautics

COINCIDING with the silver anniversary of the first flight by the Wright Brothers, in 1903, Uncle Sam staged a world congress of airplane experts in Washington in December, and the occasion was commemorated by the appearance of two U. S. stamps — 2 cents red and 5 cents blue—bearing the inscription "International Civil Aeronautics Conference" and the dates, "December 12, 13, 14, 1928."


At right—Estonia 5 senti red.

These unexpected adhesives are of the same shape and size as the current special delivery. The Washington Monument and the Capitol, with the Wright airplane as first shown by the inventors at Fort Myer, Va., comprise the design of the 2c. The 5c is similar except that for the Wright machine is substituted a modern monoplane flying above a globe on which are outlined the eastern and western continents.

Over the Atlantic by Air

COMPETING with the United States commemoratives in interest are two stamps that Germany issued for use on mail brought to the United States on the *Graf Zeppelin*. The dirigible carried about 70,000 pieces of mail on the flight westward. Postage on each letter was prepaid with a 4 marks brown stamp and on each postal card with a 2 marks blue. Design and inscriptions are significant—a Zeppelin flying above the Atlantic, with western Europe and eastern America shown by maps; the words *"Amerika," "Europa,"* and *"Deutsche Luftpost,"* the last meaning German Airpost. A pair of the covers, one with each stamp, was selling at about $5 after the *Graf Zeppelin* arrived at Lakehurst, N. J.

On the return journey the dirigible carried approximately the same volume of mail. Uncle Sam did not issue special stamps—current adhesives were used. But the Government did supply a special concellation mark so that the east-to-west covers may be correctly identified for collectors.

Other recent air mail stamps are of interest, including those of the Dutch

Indies and Saar. In the Netherlands colony, the current 12½, 25, and 80 cents, and 1 and 2½ gulden denominations have been overprinted with the word "*Luchtpost*" (Airpost) and new values—respectively 10, 20, 40, and 75 cents, and 1½ gulden. In Saar a new definitive air mail set has as its initial denominations 50 centimes carmine and 1 franc violet.

Other Newcomers and Some Notes

IN Abyssinia, Ras Tafari, who was regent, has ascended the throne, although Empress Zeoditu continues to share the rulership with him. Their portraits alternate on a series of ten values ranging from one-eighth mehalec to 3 thalers. The entire set has been surcharged with a native inscription which includes "Souvenir of Opening Day," and these overprinted stamps commemorated the inauguration of a new general post office at Addis-Abeba.

The signing of peace between Brazil as an empire and the united provinces of the Rio de la Plata, a hundred years ago, has been commemorated by Brazil with two stamps—5 centavos rose-red and 12c deep blue.

Estonia has begun a definitive series of simple and beautiful designs—three lions of heraldic character. The first values are 5 senti red, 10s turquoise, 12 carmine, and 20 gray-blue. There will be eleven denominations.

On the November page mention was made of two Russian stamps to commemorate the 100th anniversary of the birth of Tolstoy, author. It transpires that these were never issued. There was not time to have them printed for use during the Soviet national celebration and so the plan was abandoned at the eleventh hour.

A. M. L. A. Chat

Model Plane Building Is a World-wide Sport!

ONLY a few years ago there were, at most, several hundred expert model builders. To-day there are some 200,000 members of the A. M. L. A. alone. Letters come from Stockholm and Bombay, Florence and Tokio. The Model Aircraft League of Canada has been formed. Australia is planning an A. M. L. A. of its own, to work directly with the League here. England has had the Society of Model Aeronautical Engineers for some years; France wants a model aircraft organization, and has written to League headquarters for suggestions.

Last summer an international meet was held at Croydon Airdrome, London, and honors were divided by American and English entrants.

The Wakefield Cup.

Now announcement is made of the Wakefield Cup for international competition. Sir Charles Wakefield, famous British patron of aeronautics, is the doner. Sir Charles specifies that the annual competition for the cup be held in England, that any form of power may be used, and that models must have completely enclosed fuselages, hiding their motors. Thus the competition will be for the type of miniature airplane commonly called "commercial model" in this country. The only limitation is that a cross section of the fuselage must have an area, in square inches, of the square of the length of the model divided by ten. If your model is thirty inches long, divide thirty by ten and square the quotient; the fuselage cross section must contain at least nine square inches.

The second A. M. L. A. contests in Detroit next June will have international flavor, too. Many members of the Model Aircraft League of Canada plan to enter. Which means that Canadians may win the American model plane championships!

"It will soon be just a year since a copy of THE AMERICAN BOY came into my hands and I built the little R. O. G.," writes Lawrence E. Hankammer, of Des Moines, Iowa. "That little plane started me in the greatest sport of the day, model airplane building. Please send me my new membership card and button."

"I appreciate your aid during 1928," says Loren R. Burkholder of Dover, Ohio. "I have learned very much from the material you sent me. It certainly was helpful."

"I want you fellows at Detroit who are running the service end of this League to know that we fellows building models sure do appreciate this being able to get first class supplies at a reasonable price!" This from Richmond Sonrack, of Portland, Oregon.

And they come like that to League headquarters in every mail. What can the League do for *you*?

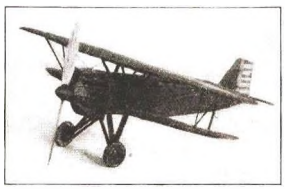
Speaking of scale models, Rudy Germain in Detroit built one—an army Hawk—that proved this type of ship could be built to fly. Germain used a twelve-inch wing span and a corresponding fuselage length—about seven inches. The model is chiefly of balsa construction—balsa longerons and wing ribs, balsa struts and landing gear, balsa wheels and balsa prop. Cross members in the fuselage are of 1-64 inch bamboo, leading edge on the wings are five strands of No. 100 cotton thread. Covering is entirely of Japanese imperial tissue, the wings dyed yellow with Easter egg dye mixed with a six-to-one solution of acetone and banana oil; the fuselage is painted olive drab with a very thin paint. Control surfaces are adjustable.

The notable feature of Germain's model is the detachable nose—the prop, "motor" and motor stick (six inches long) all come loose. They are attached to the fuselage by means of a tiny music wire prong which fits into a hole in the forward balsa fuselage cowling, and an ordinary snap like those used on women's clothing.

With six strands of very fine square rubber, wound to about 150 turns, Germain obtained flights of 17, 20 and 21 seconds. He did this with a five-inch propeller, its blade 3-4-inch wide at the widest point. The model takes off from the ground; with the toothpick prop in the picture it will climb very rapidly.

League members write in to say that they are watching Russ Farrell on the movie screen and getting as much fun and thrill from his exploits as they have in the magazine. Russ is played by Reed Howes, stunt flyer, in the Educational Pictures series made from the Thomson Burtis stories which have appeared in THE AMERICAN BOY. The pictures are being shown all over the country. Tell your neighborhood exhibitor he can get the

Fish had square wing tips on his winning model.



This Hawk flies for twenty seconds.

Russ Farrell series from Educational Film Exchanges.

Wayne Brown, of Andalusia, Alabama, drew up workable plans for an ice plane—modeled somewhat after the Rassner hydroplane described last March in THE AMERICAN BOY. His trouble was finding ice in Alabama to try the model out! A number of builders have made up successful ice models. With balsa skis, fairly short and wide, they take off from the ice and fly splendidly.

The outdoor twin pusher which won for Lloyd F. Fish, Washington, D. C., fifth place in the First National A. M. L. A. Contests at Detroit last June has brought him further honors. On July 14, in Washington, it flew for five minutes fourteen seconds above Bolling Field—that made him one of Washington's official representatives at the annual playground contests in Atlantic City in October. And in the playground contests, in spite of a gusty day, unfavorable for flying, it remained aloft for two minutes twenty-five seconds and won first place in the senior outdoor event.

Herbert Dorsey, also of Washington, was all-round senior champion, placing first in the outdoor speed event and winning points in seven other events. Ernest Marcouiller, Evanston, Ill., was second, and Fish third. Edwin O'Donovan, Topeka, Kansas, was junior champion with points in nine out of ten events, indoor and outdoor; Robert Atwater, Elmira, N. Y., was second, and George Bell, Washington, D. C., third.

The ship is made in accordance with Mr. Hamburg's plans as given in THE AMERICAN BOY just a year ago, except that it has square wing tips——it is cut off at the two end ribs, for lightness. Fish built the plane largely from a League kit.

The best individual record made in the contest was that of Tudor Morris's hydroairplane. Morris's ship flew for twelve minutes 30 seconds—it took off from a pond, climbed 700 feet and flew nearly a mile over the ocean before it descended. Coast guardsmen in a surf boat rescued the plane, uninjured.

Morris lives in Peru, Indiana, where he works with Bertram Pond, former national outdoor champion, and Virgil Rassner, designer of the model hydroplane described in last March's AMERICAN BOY. His new record displaces Pond's, two minutes fifty-three seconds.

Morris's scale model of a Fairchild cabin monoplane won second place at the national contests in Detroit in June.

FUNNYBONE TICKLERS

True to Form

Helen: "So Peggy's new boy's a Scotchman. How does he treat her?"

Mabel: "Very reluctantly, I believe."

Sidestepped

"I asked you if you would loan me $50, but you didn't answer."

"No, I thought it would be better for me to owe you the answer than for you to owe me the fifty."

Lost Art

The Guide: "Yes, it must be over a thousand years old. You can take it from me they don't build such ancient castles nowadays."

A Well-Dressed Bossy

'Arriet (in the country): "Ain't that cow got a lovely coat?"

'Arry: "Yus; it's a Jersey."

'Arriet: "A jersey? And I thought it was 'er skin."

Garnering the Shekels

Teacher: "Now, Bobbie, tell us when is the harvest season?"

Bobbie: "From November to March."

Teacher. "Why, Bobbie, I am surprised that you should name such barren months. Who told you they were the harvest season?"

Bobbie: "Dad; he's a plumber."

Beating the Game

Dachshund racing has been tried in Germany. The trouble is that on a circular track a very speedy animal very often overtakes itself.

Call the Cops

Rube: "What do you think about this here Evolution?"

Yokel: "It's a good idea — but can they enforce it?"

Please Forward

"Do you know Lincoln's Gettysburg address?"

"No. I didn't even know he lived there."

Time for Adjectives

Most men call a spade a spade, until they happen to let it drop on their toe.—

Facial Recognition

Impatient Diner: "Say, have you forgotten my chops?"

Waiter: "No, sir, I remember your face quite well."

Brilliant Career

"My mother will be surprised when she gets my letter. 'August,' she used to say, 'you are so stupid that you will never get a job,' and in the last month I have had six!"

Give 'Em Cookies

Now that Dr. Beebe assures us sharks are harmless except when attacked, we have made a firm resolution never again to go around biting sharks.

"How's business to-day?"

"I just got two orders in there. She told me to get out and stay out!"

On the Job

Mother: "Jimmy, did you get that loaf of bread I sent you for?"

Jimmy: "No, Mother, the store was closed."

Mother: "What? Closed at this hour of the day?"

Jimmy: "Sure. There was a sign on the door that said 'Home Baking'."

Quite So

Many a man is generous to a fault who is stingy with his virtues.

Believe It or Not

The latest Scotch story concerns a member of that race who, desiring to communicate with his folks in Chicago, asked the telegraph clerk how much a telegram would cost. He was told five cents a word for ten words, with no charge for the signature.

"There will be no charge for the signature?" he repeated.

"That's right," said the clerk.

The Scot rubbed his forehead with the pencil.

"Well," he said finally, "suppose you just send the signature?"

The clerk grinned.

"All right," he said, "I'll do that for you. What's your signature?"

Another pause on the part of the Scot.

"Well," he finally murmured, "I may not look it, but I'm an Indian. And my name is I-Won't-Be-Home-Till-Friday."

Catching Complaint

Absent-minded Professor: "Elizabeth, I believe I have lost the road."

Absent-minded Professor's Wife—"Are you certain you had it when you left the house?"

A Future President

Mother: "Tommy, how did you get that black eye?"

Tommy: "Because I did not choose to run."

Beating Euclid

According to some automobile manufacturers, the shortest distance between two points is a straight eight.

Wrong Instrument

Teacher: "Give me an historical example of inappropriate action."

Bright Pupil: "When Rome was burning Nero played the fiddle when he should have been playing the hose."

Prepared

"I don't see where we can put up this political speaker for the night."

"Don't worry — he always brings his own bunk."

Getting Wise to His Job

The Boss: "What—you a college graduate and you can't get tickets for the big game? Say, what do you think you're in this firm for?"

Anxious to Please

Boss: "Yes, I want an office boy. Do you smoke?"

Boy: "No, thank you, sir, but I don't mind having an ice-cream cone."

Contents for January

Cover Drawing by *Anton Otto Fischer.*

Medium Size Eveready Layerbilt "B" Battery No. 485. 3¼ inches thick. 45 volts.

The original Eveready Layerbilt "B" Battery No. 486. 4 7/16 inches thick. 45 volts.

EVEREADY LAYERBILTS GIVE 25% TO 30% LONGER SERVICE, YET COST YOU ONLY A FEW CENTS MORE

IF YOU have been buying the Medium Size Eveready "B" Battery No. 772, at $2.75, add only 20 cents to what you have been paying, and get the Medium Size Eveready Layerbilt "B" Battery No. 485. For these few extra cents you get a genuine Eveready Layerbilt, made of flat cells. It will last 25% longer than the cylindrical cell battery of the same size.

If you have been using the cylindrical cell Heavy Duty Eveready "B" Battery No. 770, at $4, next time add just 25 cents to its price, and get the Eveready Layerbilt "B" Battery No. 486. This is the famous original Eveready Layerbilt, the longest lasting, most economical and convenient of all Eveready. It contains much more active materials than the cylindrical cell Eveready of the same size, and lasts 30% longer.

It is possible to pack more active materials inside an Eveready Layerbilt because it is built of *flat* cells. These pack together tightly, occupying all available space inside the battery case, and eliminating many soldered connections. The waste spaces between the cells of a cylindrical cell type of "B" battery are avoided. An Eveready Layerbilt is all battery. That is why it lasts so much longer. Next time you buy "B" batteries, get Eveready Layerbilts.

Layerbilt construction is a patented Eveready feature. Only Eveready makes Layerbilt batteries. National Carbon Co., Inc., New York, San Francisco. Unit of Union Carbide and Carbon Corporation.

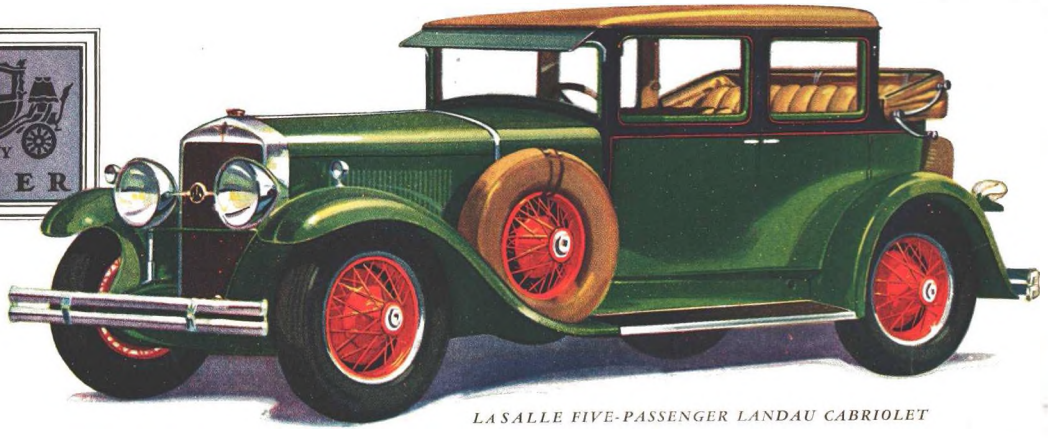
TUESDAY NIGHT IS EVEREADY HOUR NIGHT—*East of the Rockies*, 9 P. M. Eastern Standard Time, through WEAF and associated N. B. C. stations. *On the Pacific Coast*, 8 P. M. Pacific Standard Time, through N. B. C. Pacific Coast network.

SEE AND HEAR THE NEW EVEREADY RADIO SETS

NEVER has the leadership of Fisher and Fleetwood been more brilliantly exemplified than in the exquisite closed bodies on the new Cadillac and La Salle chassis. The smart, distinctive Cadillac-La Salle body designs, that have created a national vogue in motor car style, have been carried to new heights of refinement and beauty. At the same time, the notable ability of Fisher to engineer unprecedented roominess and comfort into a motor car body is here more strikingly apparent than ever before.

G E N E R A L M O T O R S

BODY by FISHER



LA SALLE FIVE-PASSENGER LANDAU CABRIOLET