

BRITAIN BOMBS BERLIN

SEE BACK COVER

**1st
ISSUE**

#1
1939
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AIR

ADVENTURES

**A Nazi
Shall Die!**

BY

METTEAU MILES

**DECEMBER
15c**

H.W.
McCAULEY

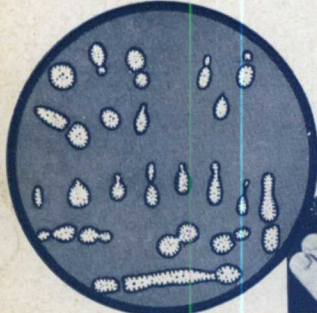
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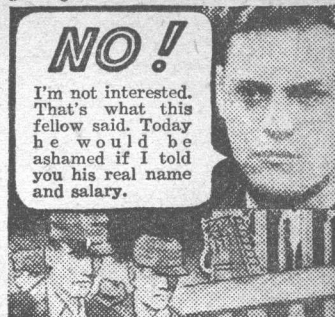
Read what happened



YES!

I'll take your training. That's what S. J. Ebert said. He is making good money and has found success in Radio.

*to these
two men
when I said:*



NO!

I'm not interested. That's what this fellow said. Today he would be ashamed if I told you his real name and salary.

I will Train You at Home in Spare Time for a GOOD JOB IN RADIO

THESE TWO FELLOWS each clipped and sent me a coupon, like the one in this ad. Both were interested in getting a good job in Radio—a field with a future. They got my book on Radio's opportunities, found out how I trained men at home to be Radio Technicians. S. J. Ebert, 104-B Quadrangle, University of Iowa, Iowa City, Iowa, saw Radio offered him a real chance. He enrolled. The other fellow, whom we will call John Doe, wrote he wasn't interested. He was just one of those fellows who wants a better job, better pay, but never does anything about it.

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Radio broadcasting stations employ engineers, operators, station managers. Radio manufacturers employ testers, inspectors, foremen, servicemen in good-pay jobs. Radio jobbers, dealers, employ installation and servicemen. Many Radio Technicians open their own Radio sales and repair businesses and make \$30, \$40, \$50 a week. Others hold their regular jobs and make \$5 to \$10 a week fixing Radios in spare time. Automobile, police, aviation, Commercial Radio; loudspeaker systems, electronic devices are other fields

offering opportunities for which N.R.I. gives the required knowledge of Radio. Television promises to open good jobs soon.

Many Make \$5, \$10 a Week Extra in Spare Time While Learning

The day you enroll, I start sending you Extra Money Job Sheets which start showing you how to do Radio repair jobs. Throughout your training I send plans and directions which have helped many make \$200 to \$500 a year in spare time while learning. I send special Radio equipment to conduct experiments and build circuits. This 50-50 training method make learning at home interesting, fascinating, practical. I ALSO GIVE YOU A MODERN, PROFESSIONAL ALL-WAVE, ALL-PURPOSE SET SERVICING INSTRUMENT to help you make money fixing Radios while learning and equip you for full time work after you graduate.

Find Out What Radio Offers You

Act Today! Mail the coupon for my 64-page Book, "Rich Rewards in Radio." It points out Radio's spare time and full time opportunities and those coming in Television; tells about my course in Radio and Television; shows many letters from men I have trained, telling what they are doing and earning. Read my money back agreement. MAIL COUPON in an envelope, or paste on a penny postcard—NOW!

J. E. SMITH, President

Dept. 9KM, National Radio Institute
Washington, D. C.

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THIS NOW**



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J. E. SMITH, President, Dept. 9KM,
National Radio Institute, Washington, D. C.

Dear Mr. Smith:

Send me FREE, without obligation, your 64-page book "Rich Rewards in Radio" which points out Radio's opportunities and tells how you train men at home to be Radio Technicians. (Write Plainly.)

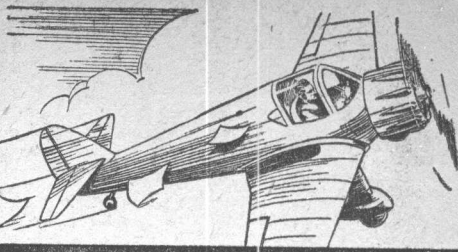
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From the EDITOR'S COCKPIT



HELLO, Air Fiction Fans! Here's your editor coming right down to earth to introduce AIR ADVENTURES in person. And believe us, we're proud to present our new baby to you. We're positive that we've selected a grand bunch of stories to lead off this first issue, and we guarantee you'll find them right up your alley. We've tried to give AIR ADVENTURES a new, streamlined fuselage and plenty of *speed*. And in keeping with modern aviation, we've given the magazine plenty of variety. *Different* air stories, with plenty of punch, plot, and thrills. There's variety; air-war yarns that'll keep you figuratively ducking Spandau slugs, modern adventure flying in the commercial field, and private flying stories laid right in your own backyard! You'll like AIR ADVENTURES' varied menu.

NOW take for instance Arch Whitehouse's story *Warplanes For Sale*. There's a modern story of aviation with plenty of bang. It's about a fellow named Punch Woodward who is down in South America trying to land a big warplane contract. And does he find trouble! Wow! But you don't have to take our word for it; just read it and see!

War-air stories? Sure! Orlando Rigoni gives us one that will throw you into a tailspin, and Metteau Miles will have you "cracking up" right in the middle of your parlor floor.

And best of all, these stories are right up to the minute stories about *today's* war! You won't see Spads and Fokkers and 1918 in them; you'll see Nazi dive bombers, French Dewoitines, fast modern pursuits, right over the Maginot line, fighting the *new* war. And we guarantee you'll find each story an ace, from the ships themselves, to the great plots and thrilling action of top-notch writers, combined with illustrations by artists who know their stuff when it comes to depicting these

new ships. Air-war stories have graduated, and we present in AIR ADVENTURES the *last word* in modern aviation fiction.

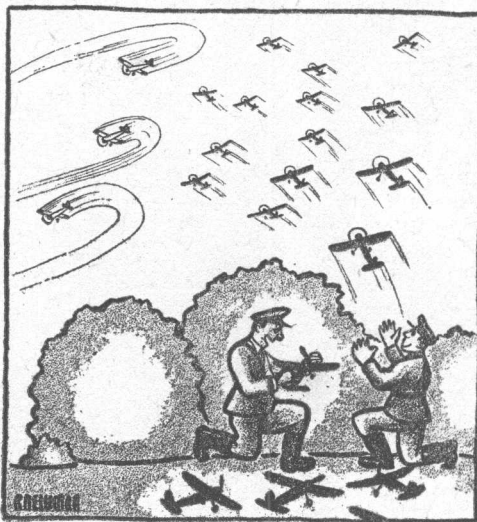
Then there's Ed Churchill with a snappy yarn about Hollywood stunt flying. Tim Varden gets framed—plenty, but we aren't framing you when we advise you to read this one! And Charles Verral tackles a private flying yarn about a kid . . . but hang it all, we can't tell you *everything* here. We've got other things to talk about.

MAYBE the first thing to mention is that AIR ADVENTURES intends to give you the *best* in air fiction. And to prove it, we're offering some nice prizes *every issue* to both reader and author! Until further notice, we'll award the author of the best story each issue a prize of \$75.00. And to the author of the second best story in the issue, we'll give \$25.00. And that's where you come in. It's going to be *your* job to tell us just who those lucky authors are going to be. Elsewhere in this magazine you'll find a coupon, listing the stories in this issue. All you have to do is fill it out, listing the stories in the order you think they rank. And tell us, in 20 words or less, just why

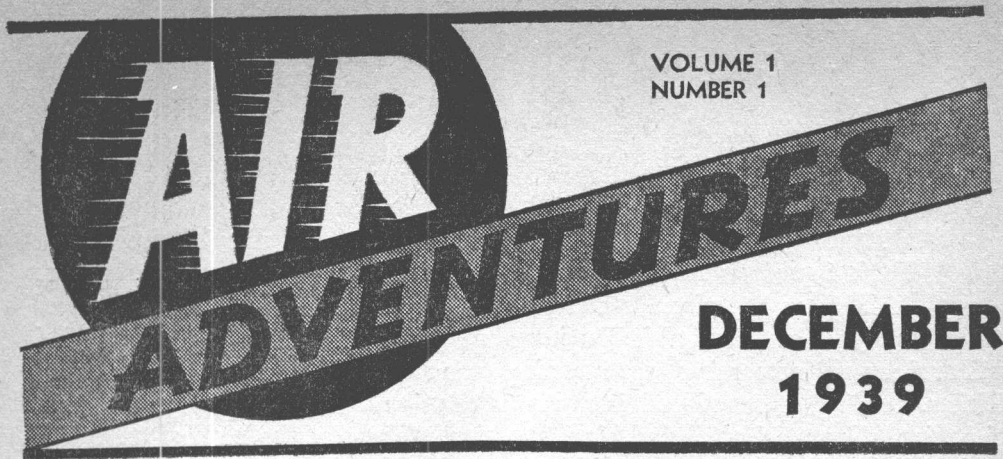
you picked story number one for that position. And to the reader who gets closest to the actual final positions of all the stories with the best letter will receive a check for \$10.00. There's your chance to get paid for telling us what you like. \$10.00 just to add to your enjoyment when you read AIR ADVENTURES. Just think, you can tell an editor how to run his magazine and get paid for it!

WHEN we planned this new magazine, we decided to give it the works on features and we're sure you'll like the many varied and interesting departments in AIR ADVENTURES. Each one has

(Continued on Page 47)



"Those enemy observers never could see beyond their noses, eh, Joe?"



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Front cover painting by H. W. McCauley depicting a scene from **A Nazi Shall Die**
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A NAZI SHALL

CAPTAIN JIMMIE MILTON, Yank Squadron Leader of No. 66 Fighter Squadron, stood on the rudder pedals and sent his Hawker "Hurricane" screaming earthward. Biting, snarling curses ripped from his tight lips. Forgetful of all else, his eyes centered ahead of him on a lone "Hurricane" that was hurtling headlong at two green Heinkel ships.

"Fitch!" screamed Milton into the slipstream. "You damned fool—damned fool—*damned* fool!" His fist beat a furious tattoo on the cowling. His heart jammed into his throat as he sped to his buddy's rescue.

Then, with the swiftness of light, Fitch's ship half-rolled upward out of the lethal streams—yawed. His eight Browning guns transfixed one of the Nazi pilots in his bucket seat, sent him earthward in a mass of flames.

Milton plunged on the tail of the remaining Nazi like a plummeting falcon. The Brownings came alive under his sure touch and hot lead hosed the green crate from empennage to motor. There was a blinding flash of flame, literally hurling the Nazi pilot into space, and the remaining Heinkel dissolved into shattered bits that rained toward the battle-scarred earth.

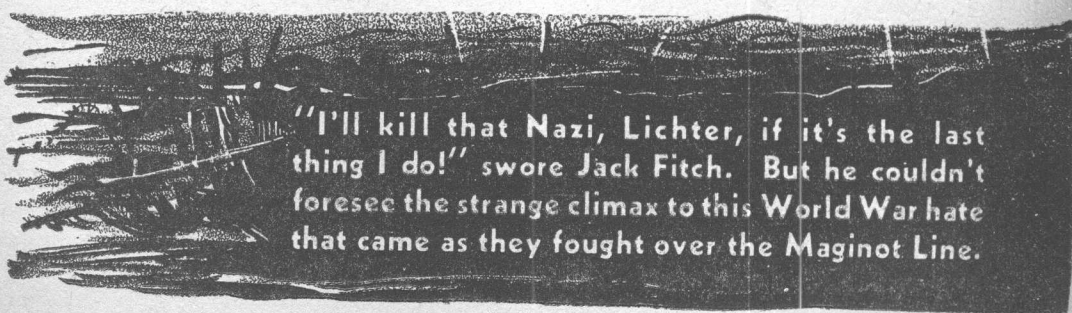
A quick glance over his shoulder revealed that the fight was over. The remaining Nazis, formation shattered, were streaking for the safety of their rear areas. He barked terse orders into the mike and tightened up the formation. Then, at the head of the squadron roaring home, he settled into the cockpit rehearsing the tongue lashing he was going to mete out to Fitch.

WHEN they landed, he waited until Fitch legged out of the pit.

"More formation pull-out stuff, eh," he snapped. "One more stunt like that and I'll break you back to ferrying ships, even if you are my best friend. If you want to commit suicide, go ahead. But don't use a plane to do it. Use poison!"

Fitch grinned disarmingly. "A good idea," he said. "Let's go over and get a dose right now."

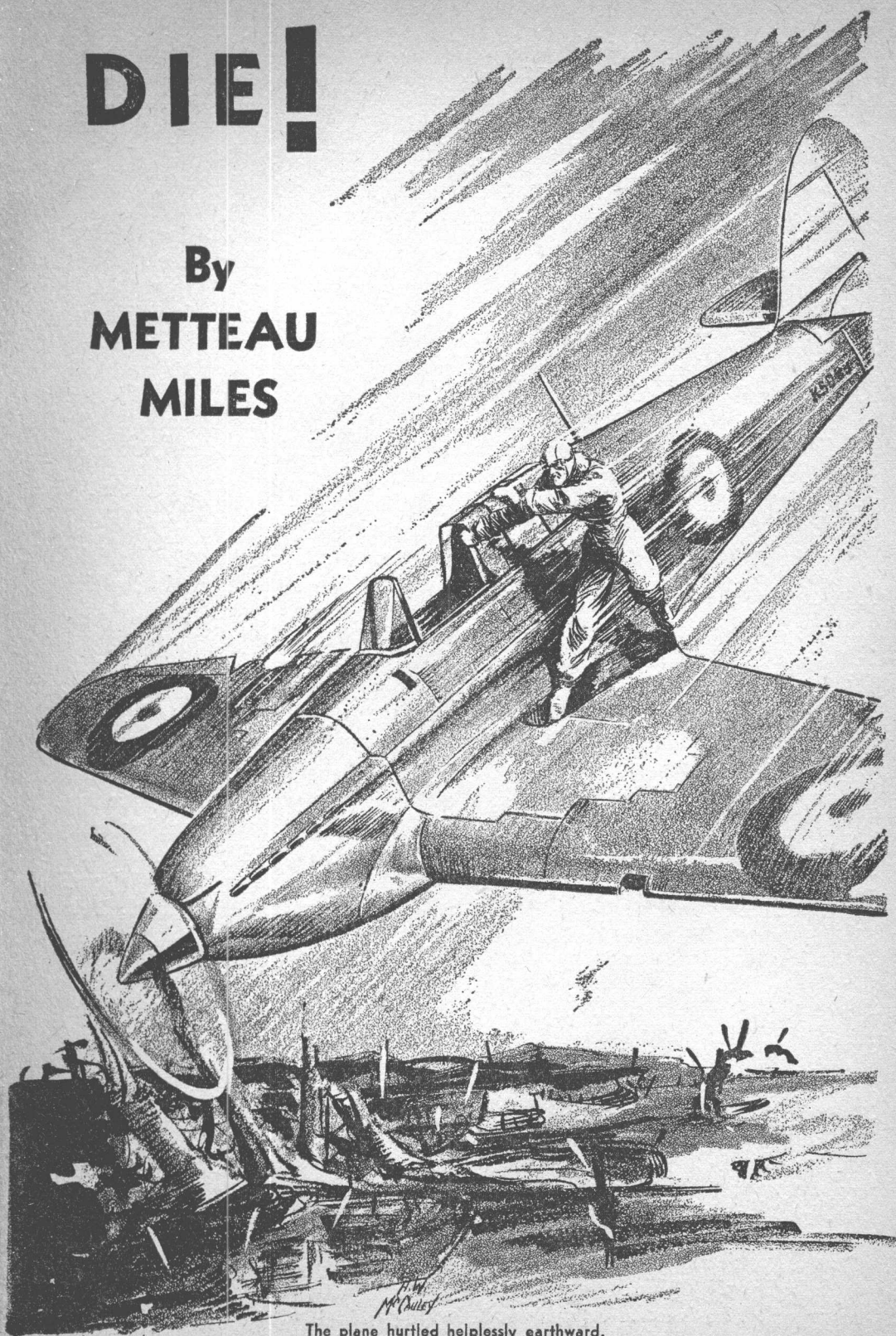
Milton gulped his wrath down, got red in the face, and then followed his buddy, a scowl on his face. He said nothing more until they had a couple of cognacs before them. Then he said, "Son, this war isn't being fought the way it was in '18. This is all formation stuff. If I didn't know you better I'd think you were a glory grabber, the way



"I'll kill that Nazi, Lichter, if it's the last thing I do!" swore Jack Fitch. But he couldn't foresee the strange climax to this World War hate that came as they fought over the Maginot Line.

DIE!

By
**METTEAU
MILES**



The plane hurtled helplessly earthward.

you've been busting out of formation. If that Nazi squadron hadn't been scattered today, you'd be a dead Fitch right now."

Fitch studied the rim of his glass. "Sorry, old man," he muttered. "Go off my nut in a fight. Not built for team work, I guess. Just want to tear hell out of 'em."

Milton leaned on his elbows and looked fixedly at Fitch. "That's not it, you blooming Britisher," he said meaningly. "You had a beautiful case of Nazi hate on when I joined up with the British two years ago and there wasn't any war. Now that the war has come, you go off your bean only when you think we've tangled with *Lichter's Jagdstaffel*. What the hell have you got against *Lichter*, anyhow?"

Fitch's eyes narrowed. He tossed off his drink in a gulp. "All right—I'll tell you," he breathed, and his eyes became pin points of flaming hate. "*Lichter*, damn his soul, killed my father in the last war—twenty-one years ago. He was a youngster then. It made him an ace. He crowed over it. I'll kill that Nazi if it is the last thing I do!"

Milton slapped his glass down on the bar. "Jack, I'm terribly sorry, old man. But don't you think twenty-one years is a long time to hold a hate—and sort of futile, too. He was simply doing what we do ourselves. Fighting under orders. Killing the enemy."

"Are you taking up for a Nazi?" snarled Fitch.

"That's beside the point," retorted Milton. "I don't give a damn about *Lichter's* hide. I'm not feeling sorry for him. It's *you* I'm feeling sorry for."

"Save your sympathy for someone who needs it," Fitch rasped.

"I wish you'd listen to me a minute," pleaded Milton. "I'm your buddy, you know that. What's worrying me is that

you go off half-cocked and do such damn fool crazy things in the air. You're just daring fate to slap your ears down. You'll either get killed or court-martialed, the way you're going." He reached out and squeezed Fitch's arm. "Come on, kid; won't you look at it my way? What if I was acting like you? How would you feel? What would you say?"

Jack's face softened. He didn't say anything for a minute, then: "I—I guess maybe you're right," he said. "Sorry, Jimmie. Maybe that *Lichter* guy isn't worth worrying about. Or maybe he's just like us, another sack of cannon fodder."

Milton poured a couple of drinks. "I'm not trying to make a lily out of *Lichter*. But I want you to quit thinking about him all the time, hating him with everything you've got. It'll ruin a guy. Hate will cross up your nerves, fog your brain worse than anything in the world. Will you make me a promise?"

"What?"

"Forget about *Lichter*. Just go out and fight like you used to. Like the rest of us do. If the Squadron ever meets up with him, I promise we'll try to cut him off from his *Jagdstaffel*, and I'll keep the rest of the fellows off. He's yours. But forget about him until then. Okay?"

After a moment, Jack replied, "Righto."

THE next morning, Jimmie Milton was able to kill two birds with one stone. A couple of replacements were on hand and he wanted to give them a "dusting off" patrol inside the lines. Secondly, by taking them up, he was able to send the regular morning patrol over the lines in charge of Lt. Fitch, who as Deputy Squadron Leader automatically took over in his absence. In

this way there was apparently nothing intentional about it, just an accepted placing of authority in a taken-for-granted way. A sort of molding of yesterday's promise before it had a chance to cool off.

When he returned to the drome with the two fledglings, it was after eleven. Scooting in over the trees, he noticed that the squadron had returned. And—his heart skipped a beat—one crate was missing! He taxied recklessly around his slow-moving replacements and roared up on the apron.

Pee Wee Barton and several others were standing at his wing when he legged from the pit.

"Jack met up with Lichter," announced Pee Wee, in answer to Milton's unvoiced question.

"You mean—?"

"No, he wasn't knocked down. Lichter's guns jammed and, believe it or not, Jack let him off. He took a piece of chalk and drew a clock on the fuselage below the cowl. Got the idea across to Lichter that he'd meet him at noon. He's on his way now."

"You mean that Jack and Lichter agreed to get together at noon and fight it out?"

"That's the size of it."

Milton snarled angrily. "Why didn't some of you guys go along with him? Don't you know that solo patrols are forbidden? Don't you know it might be a trap?"

"We wanted to, but Jack ordered us to stay on the ground."

Milton shouted a command at a couple of mechanics to gas up his crate. "And throw in an extra ammo belt," he added. "The rest of you birds get gassed up and follow me."

"We're already gassed up," they shouted in a chorus.

The rendezvous had been arranged for a spot just back of the Siegfried

Lines, near Kehl. Milton batted the throttle full across the quadrant and kept it there. He had a queer feeling in the pit of his stomach. Lichter might be on the level but somehow he felt that something was wrong.

Milton snapped on the radio. "L1547, L1547," he chanted tersely into the mike. "L1547, report to Squadron. L1547, report to Squadron." But there was no answer. Fitch was deliberately ignoring the command. Either that; or . . .

As they reached the Siegfried Line,archie began smudging the sky with black bursts. He seemed to have the range this morning. A loud burst coughed almost beside his wing, rocked the "Hurricane." The explosion sounded like a giant clapping his hands, hurt his eardrums. Cursing, he veered off twenty degrees, counted twelve—veered again.

The bursts kept ahead of them. Suddenly a sickening premonition came over Milton. Archie could be seen twice as far as a plane. Was often used for signals. Perhaps the bursts were warnings to an enemy *staffel* somewhere in the vicinity—back of Kehl, for instance.

Then he saw them! Up ahead and to his right. For a moment he couldn't be sure. But—yes! It was a *staffel* of Nazis pitted against a lone Hawker "Hurricane."* Jack had been lured into a trap! He was battling impossible odds—one against six!

CURSING, sobbing, praying, pleading, Milton rocked back and forth

* The Hawker "Hurricane" is a British single-seat fighter. It is a low-wing cantilever monoplane and is powered with a 990-1,050 h.p. Rolls-Royce "Merlin" twelve cylinder, liquid cooled, Vee type engine. The plane has a top speed of 335 m.p.h. and a landing speed of 62 m.p.h. It is armed with eight Browning machine-guns, four in each wing firing outside the propeller area. Each gun fires 1,500 rounds per minute.—Ed.

in the pit, tried to coax an extra mile out of the already over-taxed Rolls-Royce motor. He couldn't be too late! He mustn't be!

He tripped his eight Browning guns in a warming burst. Behind him chattered the Brownings of his mates, as they also warmed their guns eagerly. But all the time his straining eyes never left the scene ahead. Oh, God! Please let him get there in time, please!

But it wasn't to be.

A flaming comet suddenly blazed across the sky, shot downward. It was impossible to tell for sure, but Milton knew in his heart that it was his friend. A moment later his worst fears were confirmed. The Nazi *staffel* was reforming. The fight was over. They tightened in formation and high-tailed for the hinterlands.

It was no use chasing them. Milton nosed down toward the spot where the flaming wreckage had crashed. It was somehow like pulling back the lid of a coffin.

There was nothing but blazing debris rioting over a wide area. The twisted, metal framework of the fused "Hurricane" formed a cross. Tears broke down Milton's cheeks as he turned the squadron toward home. The cremated wreckage, the fiery cross, seemed to ride along in front of him. He could see the tortured, blackened form of Jack Fitch crucified against that cross.

When he got back, he loaded his ammo belts with incendiaries. "An eye for an eye . . ."

THE next two weeks produced a new Captain Milton. His comrades stared wide-eyed and silent at the grim, foreboding spectre of a man they had once known as the jolly Jimmie Milton. One idea possessed his mind—*kill Lichten!* But the wary Nazi was not to be seen. The days sped by and Milton be-

came more gaunt and red-eyed from endless, fruitless hours in the air. No enemy *Jagdstaffel* could stand against him. His squadron brushed Heinkels and Messerschmitts into eternity with an impatient gesture and he resumed his ceaseless prowling of the cloud lanes.*

Then the gods relented—and laughed. It was on a regular morning patrol. They were returning to the drome when a Heinkel *staffel*, with more guts than usual, dove out of the clouds and tangled with them. It was an evenly matched scrap at first. Formation smashing at formation in lightning dives too swift for the eye to follow. But it was one of the days when No. 66 Fighter Squadron could do no wrong.**

The fight had hardly started when two of the Heinkels locked wings and corkscrewed out of the melee. They had not crashed into the mud before a third was following them down, a heavy plume of black smoke trailing it.

Suddenly Milton's heart leaped in his throat. On the Nazi leader's plane there was a forked lightning insignia. *It—it was Lichten!*

A swift zoom and the squadron was spearing back at the wheeling Nazi for-

* The Heinkel He.112 is a German single-seat fighter of low-wing cantilever monoplane design. It is powered with a 660 h.p. Junkers "Jumo 210" engine and has a high speed of 316 m.p.h. Two fixed machine guns are located in the sides of the fuselage and fire through the propeller. Two additional guns are located in the wings and fire outside the propeller arc. The guns are Madsen, firing 1200 rounds per minute.—Ed.

**Note the difference in air war tactics compared with the scrambled dog-fighting in 1914-18. Today pursuit planes fight in formation as a single unit. If one plane should depart from the formation, he immediately becomes the easy prey of an enemy squadron. When Milton turned command of the squadron over to Deputy Squadron Leader with a brief word into the microphone, and followed his buddy down, he was taking a chance of never returning. The fact that the Nazi *staffel* had been scattered allowed the play of Fitch and Milton to be completed.—Ed.

mation. Relentlessly Milton drove into the head of the Nazi echelon. Drove in like a mailed fist and separated the leader from his mates. He barked into the microphone and turned command over to the Deputy Squadron Leader. Then he darted from the formation, the two squadrons behind him messing up into a general melee.

Eyes red-rimmed and straining, lips pressed against his teeth, hate showing in every line of his gray face, Jimmie Milton looked like a cadaverous monster as he bored after the Nazi. Recklessly, crudely, intent only upon downing this murderer, thinking nothing of himself.

Lichter was clever, slippery. He was fast. Nazi and Yank maneuvered warily, fighting blackout of vision and consciousness in the gut-ripping turns. Every time Milton got him lined up, he would wriggle nimbly out of the sights. In futile rage, Milton poured several bursts into the space which the Heinkel had just vacated. The incendiary flame burned a trail of hate through the air.

He caught his own share of lead. The Nazi reached in his bag of tricks and came up with several stunts that nearly caught the Yank. But finally his very relentless drive seemed to wear the Nazi down. Milton felt himself getting closer and closer to the moment when he would send the treacherous Lichter writhing down through space to the hell he deserved.

He got in a long burst—straight into the Junkers "Jumo" motor. Smoke and sparks showered from the cowlings where his phosphorus slugs smashed home. Lichter turned, almost rudered into him, then was gone like a flash of light. There had been panic in that last maneuver!

Milton rode the stick and rudder hard, planted his nose back on the target. He pressed his thumb for a finish-

ing burst—suddenly stopped short.

Straight into the line of fire, directly between them, dropped a Hawker "Hurricane!"

MILTON cursed, wept. "Get out of the way, damn you!" he screamed into the mike.

He saw the pilot of the other ship. It was one of the replacements he had just broken in. Little Bunny Ames. He pounded the cowlings in blind rage, shook his fist at the other pilot. Ames, now, seemed to realize his blunder. He skidded awkwardly away. But it was too late! The hated Lichter had taken advantage of the momentary screen—was rocketing down the sky lanes for home.

Milton streaked after him. But it was useless. His motor pounded unevenly. The Heinkel held its own, kept the "Hurricane" from closing the distance. Hunched in the cockpit, muttering, Milton nosed around, flew back to the tarmac.

His was the last ship to hit the drome. Taxiing up on the line, he legged out of the pit and stalked over to the bar. Ames was standing there, nervously fingering a drink.

"Captain Milton, sir," he began, "I'm sorry—"

The impact of a solid fist halted his words. Blood spurted, streaked down his chin. The youngster made no effort to return the blow.

"I'm sorry—"

Again Milton's fist crashed into his face. This time Ames hit the floor. Milton glared down at him wildly, seemed about to pick the man up and smash him again. Hands grabbed him; arms went around his shoulders.

"That's enough, Milton. The kid said he was sorry. He didn't do it on purpose."

Milton shook off the restraining

hands. Grabbing a drink, he gulped it down. He shook his head, poured another. Little Bunny Ames—he wouldn't weigh one-forty soaking wet—got to his feet. His lacerated lips streamed blood. Milton scowled.

"The next guy that pulls a stunt like that gets a bellyful of buckingham," he rasped. "I'm not holding my fire."

After that, if possible, Milton became even more sullen and morose. He snapped when anyone spoke. Growled rather than talked. Pee Wee Barton caught a right on the jaw merely because he cracked a joke trying to cheer him up. The men at first understood how he felt, but now they drew away, kept out of his path. Milton, they said, had cracked. Right down the middle of the seams.

IT was in this state one wet morning that Captain James Milton staggered to the apron. In open defiance of General Orders, he ordered his crate out for a solo patrol and fumbled into the cockpit. Without properly warming up the cold 1000 h.p. Rolls-Royce "Merlin", he shot across the field and thundered into the air. The engine sputtered, missed. The undercarriage of the "Hurricane" nestled into its sleek belly just in time to clear the tops of the trees bordering the drome. Then he was free and in the air.

Earlier patrols had been cancelled because of a persistent ground fog, but now the sun was breaking it up. He pulled the nose around in a steep climbing turn, pushed the throttle open and left it there. His touch on the controls became steadier. The sensitive "Hurricane," like a thoroughbred horse, felt the difference and calmed down. He was over the Maginot line in a matter of minutes.

Milton, too, shook his head, clearing the webs from his brain. He felt more

himself this morning than since—since Jack's death. He realized abruptly how badly he'd behaved toward his flying mates, his best friends. He was sorry. He regretted hitting little Bunny Ames. He frowned thoughtfully. The kid hadn't even felt the blows, he'd been so torn up over messing Milton's opportunity.

Then like a bat out of hell it came! Out of nowhere! A grayish blur with vomiting greenish-yellow gun muzzles. Death and destruction dripped from those four wicked orbs. The Junkers motor of the diving plane blatted in a rising whine.

A line of tracer suddenly blasted less than two feet from Milton's head, stitched along the trailing edge of the upper wing. He almost felt the torrid breath on the back of his neck. He cursed at his stupidity. Cruising around like an idiot, caught unawares. Openly defying orders. He was cold meat for the *Jagdstaffel*. Apparently the Nazi had swooped down, cut in his motor at the last minute.

Snapping the nose of the "Hurricane" over he flung the crate down like a falling star. Through the prop he saw the other plane more clearly. It was black-and-white. A green *Heinkel*! But the ship was alone! *Lichter*, the remembrance of the days of 1918 strong in him, had also ventured out alone.

INSTINCTIVELY he *knew*. Even before he was close enough to see the lightning insignia. *Lichter*! The knowledge acted like a bucket of ice-water over his head. The nervousness, the excitement, rolled away from him. His hands were steady as he caressed the gun trips.

He cut loose with a warming burst at four hundred yards. At two hundred, he tripped the Brownings in earnest.

With the methodical sureness of a

legal executioner. Milton sprayed the Heinkel as it climbed back up the sky. The line of his fire was in front of the cockpit, it was behind. He touched the stick, and then the German rolled.

Milton could hardly believe the Nazi had escaped the first lethal burst. It had seemed to crash straight through the cockpit. But Lichter was still alive—very much so.

Now, as the "Hurricane" swept past, the Nazi's Madsen guns opened up. The slugs cracked around his ears like whiplashes. They drummed into the doped surfaces of the "Hurricane." A sawing line worked along the wing. The glassed-in hatch over his head shattered. He shoved it back and gulped in the terrific blast.

A thunderbolt crashed inside Milton's head. There was a showering of rioting sparks, a sudden blinding pain. Then he was sliding down the edge of a black precipice. He clawed wildly, desperately. Fought to throw off the shrouds of unconsciousness. He flopped over the cockpit cowling and the blast of the slipstream plucked the black veil away.

Lichter and his Heinkel loomed in his vision. The Nazi was squatting on his tail. The blobs of flame from his four Madsens were so close they hurt his eyes. He was looking into the leering face of Death in that moment. Mechanically, instinctively, his right hand twitched, jerked on the stick. His head was still on the cowling, facing the tail.

The Heinkel was gone.

Milton still looked back. Where was the hated green crate? He didn't realize that the "Hurricane" had snapped over in a loop. He pulled his head around painfully.

There it was! The Heinkel! In front of him! The colors of plane, sky, and earth ran together in a grayish and crimson-tinged river. He felt the blackness tugging at him again. He didn't

have the strength to lift his head, to look through the sights.

His fingers tightened on the trips. And as the hateful blackness enveloped him completely, his thumb continued to tighten convulsively. The spewing muzzles of the Brownings were flinging their phosphorus slugs even after the "Hurricane" nosed down in a mad spin.

Down, *down*; the whirling plane spouting lead; the inert form lolling in the pit. Then the very force of the spin revived him momentarily. He saw the earth through a blood-red haze. He neutralized the stick, kicked opposite rudder, and straightened out in a dive.

Trenches, barbed-wire, domed "pill-boxes" of the Maginot Line—he could almost see upturned faces. All rushing, rushing up at him. He was yelling. Yelling at someone. Oh, yes! He was yelling at himself. "Pull back on the stick." "Pull back on the stick!"

Tapping some well of unknown strength, he yanked the stick back. He was conscious of the earth suddenly flattening out, streaming back under his wings. He was conscious, too, that his strength was fast ebbing. He slumped forward, put his head against the crash pad. It was so nice and comfortable and peaceful.

Fire! The thought needled through the blackness. His hand fumbled, cut the switches.

He was vaguely aware of a terrific ripping, slashing, and pounding. The ground at last. But somehow it was all so far away—it didn't seem to concern him.

THE nurse slipped an extra pillow under his head, straightened the covers. "Remember," she cautioned, "your visitors can only stay five minutes."

Captain Jimmie Milton nodded, looked toward the door. Pee Wee Bar-

ton and little Bunny Ames. Funny that Bunny should come to see him.

Pee Wee spoke first, awkwardly. "You lucky bloke! Blighty on a little crease in the skull."

Milton smiled at them. "How's everything with you, Pee Wee? Bunny?"

"So-so."

Then Milton came to the point. The point he had been unable to find out from the nurses and doctors.

"Did I get *him*?"

"He came right down on our tarmac."

"Came down?"

"Landed. Your guns blasted his motor apart."

Milton groaned. "Then — then he's all right?"

"Yeah. We sent him to a prison camp."

"Which prison camp?" Milton's voice rasped in an ugly whisper. He had pulled himself up on one elbow.

Pee Wee had a peculiar sort of grin plastered on his face. He winked at Bunny. "Go on, go on and tell him," he prompted.

Bunny cleared his throat. Opened his mouth then decided not to say anything. He fumbled in his blouse, produced an oblong, leather-bound book. "Here," he said, handing it to Milton.

Jimmie opened the book. "I can't read German," he growled. "What the hell's this—"

Pee Wee interrupted. "Go ahead, read it to him, Bunny."

"It's a diary," explained Bunny. He thumbed the pages. Then he translated, "October 9, 1939. Today I am saddened by the death of an enemy. A gallant enemy who spared my life when my guns jammed. We agreed to return and meet in a duel, but before I could get back another *Jagdstaffel* encountered my brave opponent. He was shot down in flames. I am consoled by the thought that my gallant enemy, wherever he is, knows that I had nothing to do with his death.

"I have located the wreckage of his plane and will build a little monument with my own hands."

Captain Jimmie Milton had a queer expression on his countenance.

"Lichter's," he whispered. "And— and he was talking about Jack, wasn't he?" He took the leather-bound diary from Bunny's hands with an air of reverence. A thought struck him.

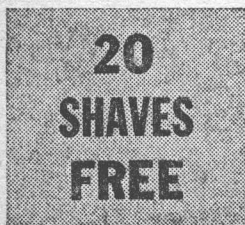
"He's all right?" He was almost yelling. "I didn't hit him with one of those buckinghams, did I?"

Pee Wee nudged Bunny, a disgusted look on his face. "Come on," he snorted, "let's get out of here before this panty-waist has me bawling. What the hell is this war coming to, anyway? Worrying about the hide of a Nazi!"

At the door, the grinning Bunny looked back over his shoulder. He shook his head negatively.

THE END

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BLACKBOARD in the SKY

By RODGER K. TENNEY

IT takes about three years of constant practice for a pilot to become a good sky writer. That's almost as long as a course in college. Jim Rose, a Chicago pilot, has been sky writing for six years; so he probably could qualify for a sky writing Ph.D.

"Sky writing is hard on your ship," Jim declares. "The pilot gets a lot of smoke and fumes, but when he lands he can get most of them out of his system. Your ship soaks up oily vapors that in time make it a 'flying tinder box.' So if you have any fire trouble, the plane is almost certain to burn."

Rose uses a chemical in his smoke making oil that minimizes fire danger; but the hazard is still there if flame does happen to touch the plane.

Almost any light lubricating oil may be used for making sky writing smoke. The oil in Rose's ship is stored in a tank in the front cockpit. From here it is piped into the oversize exhaust pipe, with the flow controlled by a valve in the pilot's cockpit. Smoke for one letter in a word requires from one to one and one-half gallons of oil; but the tank on Jim's plane has a sixty gallon capacity. This is to enable him to make more than one sign without having to land to re-fill his oil tank.

The sky writers job takes him up to altitudes where air is thin and where the ordinary airplane motor would spit and sputter under the strain of the performance required of it. For sky writing purposes, a ship must have twice the power of regular planes without having excessive weight. Rose's plane has a 500 horse power motor that gives it plenty of speed and climbing power.

"When I make a sign, I usually go up to an altitude of between 15,000 and 18,000 feet," Jim said. "A new plane I am developing, however, has an oxygen tank and can be used at 20,000 to 23,000 feet."

High altitudes for sky writing are required because here there is less likelihood of air turbulence. Steady winds don't cause trouble, but cross currents of air ruin the smoke letters. Blow smoke into an electric fan, and it travels in one direction. But place another fan at right angles to the first fan, and the smoke whirls around and is quickly scattered. Cross currents of air in the sky do somewhat the same thing to words written by a sky writer.

"I can put up a sign in a 100 mile an hour wind, if the wind is blowing in one direction," Jim explained.

Anyone attempting to guess the length of letters

in words written by a sky writer probably would find serious errors in his calculations. Against the infinity of the sky, the letters appear relatively small. Actually, they are about 3,500 feet in length, or more than three-fifths of a mile. Width of the letters usually is about 200 feet.

"The pilot, of course, must be able to figure the length of the letters while he is flying. To do this, I use a stop watch," Jim said. "Knowing the speed of my plane, I can determine, by timing, just how far to fly in each direction to get the proper size letter. Spacing each letter is largely a matter of guesswork and experience."

AND making these calculations is done while the pilot is writing *backward*! Write several words on a piece of paper. Hold the paper up to a mirror. The first left hand letter is on the right, in the mirror. And it is that letter, on the right, where the sky writer begins. But when you see the completed sign it appears as it would if written in the customary manner on paper.

When he climbs to the altitude he wants, and finds a strata of air that's free from conflicting air currents, the pilot does not immediately start his writing.

"Before I turn on the smoke," Jim said, "I line up my ship with streets below. This is necessary so I can keep the letters aligned. At 18,000 feet, city streets, of course, look merely like single intersecting lines. So I put the back edge of my wings parallel with one of these streets. Each time I start a new letter, I line up the wings again. This works all right unless I am over a town with a lot of diagonal streets. In a case like this, I get my original line up and trust mostly to luck that the rest of the letters will be aligned properly."

"Over water it often is possible to make the first letter and use the shadow of that one in arranging the position of the other letters."

After making his first letter, the pilot puts his ship up fifty feet before starting the second. Then with each succeeding letter, he goes up the same distance. This is to avoid hitting the letters with propellor "wash" which would scatter the smoke and ruin the sign. It is somewhat on the order of a Chinese puzzle, for the pilot must not cross his own trail from start to finish.

"With all of our care and preparations, we do make mistakes," Jim confesses. "For instance, take the pilot who was hanging a sign for an air show. He started off well and had a well made sign when he finished, except for one detail. Instead of 'air show' he had written 'air sow.'"

WHY GERMANY

BY

MAJOR ROGER SHERMAN HOAR*

(Major Ordnance Reserves, U. S. Army. Author of "Patent Tactics and Law," and many other books and articles on Legal and Military subjects. America's leading authority on Military Ballistics.)

AT a time when every man-on-the-street is freely expressing his opinion on tactical and strategic questions, and particularly on Germany's supposed control of the air, it may not be amiss for a military man to present the view that economic factors rather than military strength are likely to determine the outcome of this new World War which now is upon us, and that nowhere is this more true than as relates to Germany's alleged air-supremacy.

From the purely military viewpoint, the situation at the moment looks pretty black for England and France. England has practically no Army, as European armies go. At a time when even the tiny nations of the continent are talking in terms of millions of men in arms, England has not over 275,000 regulars, not over 450,000 territorials, and not over 100,000 militia. And such troops as she does have, are woefully under-officered.

Although Britannia rules the waves, the British navy will probably limit its functions to continuing to rule the waves. The fleet is no more likely to attack Hamburg or the Kiel Canal than it was eager to force the passage of the Dardanelles in the World War. Nor is the fleet likely to try to enter the Baltic Sea, through the well guarded and thoroughly mined German Sea Barrier extending among the Danish islands from the Swedish peninsula to Den-

mark. That is why Allied troops could not be landed to aid Poland.

But before we accuse the British fleet of cowardice, let us recall the "first principle of naval versus land warfare" as taught at the Army and Navy service schools, namely that: "One emplaced gun on shore is the equal of an entire warship whose major weapons are of the same caliber as that one gun." Add to this a modern electrically-controlled mine-field, and you see what England was up against.

To revert to the subject of Poland's isolation.* Even with Italy keeping out of the War, and with the Mediterranean accordingly open to England and France, Poland was cut off from her allies by Hungary, Rumania and Russia.

Germany's impregnable Siegfried Line, extending from Holland to Switzerland, interposes an apparently insuperable obstacles to France's huge, well-trained, and well-equipped Army, undoubtedly the best in Europe.

Two considerations stood in the way of aiding Poland by air, namely Germany's excellent anti-aircraft artillery, and the fact that Poland had neither the personnel, the facilities nor the material to service the Allied air-fleets.

Then too there are the terrifying implications of the Russo-German treaty.

*Opinions expressed herein are those of the author and not of the War Department.

CANNOT WIN!

Here is a significant and authoritative resume of Nazi Germany's chances for victory in the new World War, by an experienced army expert on military tactics, ballistics and economics

But most terrifying is the Nazi air force. The fear of the utter annihilation of Paris and London by a rain of bombs is universally accepted as the cause of the pusillanimous peace of Munich a year ago. And that fear still exists. Ever since Col. Billy Mitchell, backed by the Hearst papers, made his campaign against what he was pleased to call the "arm-chair aviators" of the American General Staff, America has been air-war conscious—perhaps unduly so.

I list all the foregoing bad features, merely so that the worst may be portrayed at the outset. Now let us nibble away at that apparently lugubrious picture.

It is rash to make prophecies, especially in view of the fact that one of America's leading columnists had an article explaining just why Hitler would not possibly go to war, in the same newspaper issues which announced the invasion of Poland. Even while I am writing this, the situation is kaleidoscopically changing. Nevertheless I will hazard the guess that neither Russia nor Italy will fight on behalf of Germany.

Mussolini could be of but little help to Hitler. The immediate result of Italian participation would be the loss of Italy's African empire, and the blockading of the Italian coasts. Not many more Allied troops would have to be diverted to hold the French-Italian

frontier than are now holding it anyway—just in case. The British and French might even overwhelm Italy and force their way into Germany through the Brenner Pass. Well-informed circles believe that Hitler considers Mussolini a liability rather than an asset, and is keeping him out of the war as the lesser of two evils.

Dictator Stalin fears war worse than any other European potentate. We Americans are apt to think of the Russians as one race, one nation; whereas the Socialist Soviet Republics which compose the U. S. S. R. consist mostly in conquered peoples, no more basically loyal to the Stalin regime than the Czechs and the Slovaks can be expected to be to Hitler's. Thus fully half the population of Russia today consists of oppressed minorities, who fought against the Bolshevik revolution.

Though the Soviet army is immense, it is largely recruited from these subject peoples. Only recently ten thousand officers of various ranks were executed as traitors. There is a life-sized guerrilla rebellion going on right now in the Russian Ukraine, the very Ukraine which Hitler has been coveting; which fact is perhaps one of the reasons why Stalin signed the non-aggression pact, so as to forestall the "rescue" of this minority by Hitler.

It is to be doubted if there are in the Russian Army more than 400,000 officers and men whose loyalty could be

trusted. When target-practice takes place in Russia the cartridges are handed out a round at a time, lest the men revolt.

So Comrade Stalin dare not risk a real war. Should he lose, a counter-revolution would overthrow Bolshevism. Should he win, the victorious Russian general would succeed to Stalin's job.

So Stalin knew just what he was about, when he refused to ally himself with England and France against Germany. And he is no more anxious to fight *for* Germany than *against* her. Incidentally Poland knew just what she was about in refusing to accept Russia as an ally.

Now that Germany has crushed Poland Russia may be expected to seize some of the pieces.*

Even so Russia cannot be of much aid to Germany for Russia will not weaken its already tottering economy by supplying its moneyless ally.

Incidentally, the Russo-Nazi pact has one great advantage to America. One-hundred-percent Americans can now criticize Communism without having the epithets "Nazi! Fascist!" hurled at them—can criticize Fascism, without being called reds. Now that the mask has been stripped from these twin forms of totalitarianism, the Dies Committee can proceed in their great work, unhampered by false accusations.

Has Germany the control of the air? The opinions of most persons on this question were formed at a time when the expected line-up was Germany and Italy, against England, France, Poland and Russia. Italy and Russia are now out of the picture. Even if Stalin should eventually team up with Hitler,

the negligibility of the Soviet air force, the reporting of which brought so much criticism down on Lindbergh's head, will then cut the other way.

Furthermore the relative air power of a few months ago is not the relative air power of today. Still less is it the air-power of tomorrow. According to latest information, England, France and Poland had 4500 first-line planes, as against 8000 for Nazi Germany. The allies are now building close onto 1700 planes a month, with maximum possibilities of 3300 a month in the near future; whereas Germany is extremely unlikely ever to top 2500 a month although she may possibly eventually draw up to 1000 a month from Italy. And the Allies have the whole world to draw from, in addition to their own output. It is to be doubted that Stalin, Hitler's only outside source, will sell.

And even assuming complete German control of the air (which assumption is contrary not only to the statistics but also to the news from England and France), air-power is considerably over-rated. Consider how ineffective were the Italian air-forces operating with Franco against the Loyalists in the recent Spanish War. Several thousand civilians were killed, but the military effect was practically zero; the winning of the war still had to proceed upon terra firma. The much-heralded advent of the airplane as a weapon of war has still not altered the "first principle of land warfare": that "all branches of the service exist for but one purpose, namely to assist the Infantry."

A few years ago, one of our obsolete warships was anchored off the Virginia Capes, to serve as a target for bombing from the air. For several days, in perfectly clear weather, our planes hunted for the ship and couldn't find it. Finally they found it and dumped all their bombs upon it. It remained

* Major Hoar's prediction has been borne out with Soviet Russia's march into Poland. This has happened just as the author anticipated, and Poland will be divided by Nazis and Soviets.—Ed.

afloat, practically undamaged.

Remember that these bombers and Franco's bombers were unopposed. They would have been even less effective against adequate anti-aircraft defense. In 1919 I was one of the official observers for the U. S. Army at the target practice of the Atlantic Fleet, and I marveled at the Sperry and Ford computing machines which automatically took account of wind, atmospheric density, temperature, the speed and direction of the firing ship, and the speed and direction of the ship fired upon. They aimed, laid and fired the guns with uncanny accuracy. These same principles have now been extended from the two dimensions of the surface of the sea, to the three dimensions of the air.

At the time that I resigned from the Regular Army in 1921, it was considered good work if an anti-aircraft battery could register one hit in 5000 at a towed target at 5000 feet elevation. A few years later I returned to Aberdeen Proving Ground for a tour of active duty, and was informed that the Coast Artillery A. A. battery there was making one hit in 17. Today I am told that 50% hits at the maximum bombing height of 10,000 feet is not uncommon.

On the other hand, I understand that British bombers, equipped with the new American automatic bomb-sight, presumably operating on these same Sperry and Ford principles, have been scoring 100% hits (i.e., within 100 feet of center of target, from 10,000 feet elevation. It is to be doubted that Germany has any device approaching this in efficiency, especially inasmuch as England and the United States have for years led the world in developing of instruments of this sort.

So much for the question of the control of the air.

The general military opinion in this country has been that Poland could not hold out, unless the rains came in time. Hitler struck early so as to avoid the rains, for Poland's army was extremely mobile, with large quantities of cavalry and horse-drawn artillery, and Polish mud would have given such outfits a great advantage over Germany's mechanized forces. But the rains did *not* come early, and Poland is finished.

However, do not forget that England and France were not fighting merely to save Poland—they are fighting to save their own national hides. In this connection I am reminded of what a German said to me at the close of the last World War: "We would have won, if it hadn't been for the stupidity of the British. An *intelligent* race would have known when they were licked, and would have surrendered. But those dumkopfs kept right on fighting." England is apt to display the same dumbness in the present war.

Is the Siegfried Line impregnable? Compare the successful defense of Verdun by the French in the last war. Well, breaking the Siegfried Line may prove impractical, for there is a fundamental truth that a salient driven into such a chain of fortifications is more dangerous to the attackers than to the attacked. But the *flank* of such a line can be turned. One of the most surprising things which one learns at military school is that the tactical principles of trench warfare are no different from those of mobile warfare—merely a bit slower. So watch the German left flank, where it adjoins Switzerland.

And, regardless how discouraging may be the war news of the first few months, remember that it is the long pull that counts in war, as in the investment market. Don't *speculate* on war news—*invest*.

Compare the present situation, bad as it may seem by the time these words are published, with the situation at the end of an equal number of days after the beginning of the World War of 1914. Recall the Kaiser's triumphant, almost unresisted push through Belgium and France. And then remember how that war turned out, due largely to the British sea-blockade of a Germany less land-isolated than now.

You know the story of the American who told a Britisher that he had been checking up on the military record of the Empire, and had found to his surprise that Britain had lost more than three quarters of the great battles in which it had been engaged. The Britisher replied, "True, but have you noticed that we usually manage to win the final battle of each war?"

So the real question in this conflict is: Can Germany last? The answer is emphatically No!

It is true that England does not have a trained Army, but she is ahead of all the World in munitions output. She had been roundly criticized by experts for letting her armament program get so far ahead of her training program. But has not this been wise?

William Jennings Bryan was once quite justly ridiculed for his bombastic statement that "a million men would spring to arms overnight." It was pointed out that America had no arms to spring to. England is *not* now confronted by that difficulty; and if the program of the Army Ordnance Association of this country continues unhampered by the isolationists in Congress, America will not be confronted with that difficulty. Incidentally, one of the great inconsistencies of our isolationist-pacifists is that they are so bitterly opposed to the only policy which can enable our country to maintain its isolation, namely preparedness.

But to get back to my thesis that Germany cannot last. Compare the estimated gold reserves of the four belligerents: England, one billion dollars; France, two and a half billions; little Poland, eighty million; Germany, even including her seizures in Czecho-Slovakia, only twenty-nine million. This estimation, so far as Germany is concerned *may be* false by latest reports.

Consider the question of food and military supplies. England and France, with their control of the seas, have the whole world to draw from. Germany, in spite of her land contacts, is virtually blockaded. And England cannot afford to jeopardize that blockade by any rash naval attacks on Germany.

Do not be misled by German submarine activity, into any erroneous idea that the Allies do not have complete control of the seas. Recently, in reading Admiral Mahan's epic work, "The Influence of Sea Power on History," I was much impressed by his demonstration that commerce-raiding and coast-raiding are symptoms of having completely *lost* control of the sea.

So what does this blockade mean in terms of the necessities of life and war to Germany?

Food. Germany is only about 80% self-sufficient. There is a shortage of agricultural labor, which the demand for soldiers will render even more acute. Rationing of foods was put into effect even before the War started. In fact, there are those who say that the food-rationing had become necessary, war or no war; and that this was the real basic reason for Hitler's attack on Poland. However, this can be safely discounted. France is agriculturally self-sufficient. And, although Britain produces only 40% of her own food, it is inconceivable that Germany's submarines can appreciably dent the other 60%.

Gasoline. Much has been said about

Germany's synthetic production of petroleum from coal. Yet the maximum as yet accomplished in this way has been to supply about a third of the country's needs. Where is Hitler to find sufficient man-power to devote to the mining of coal and the production of even this much ersatz gasoline? The remaining two-thirds must come primarily from Rumania and overseas. England and France control both the seas and the Rumanian oil-fields. Of course, Germany can attack Rumania, but that would give the Allies just the entry into Germany that they need.

Coal. Here Germany is reported to have more than enough for all needs. Yet, if this be so, why has Hitler so carefully restricted the diversion of coal from the production of gasoline? England, of course, is heavily oversupplied. The war should prove a boon to her most depressed industry.

Rubber. Here again, Germany's maximum synthetic production has been only about a third of her needs. And here, more definitely than in the case of gasoline, the remaining two-thirds are cut off from her by the blockade.

Wood. Here the possibilities are not very far short of the needs. The deficiencies can probably be made up from Scandinavia; and even if these communications are cut, the loss will not be seriously felt.

Iron. Germany is only 25% self-sufficient. Her principal outside source is Sweden.

The mines with which Germany fought the last war, now lie inside of France. If Britain should gain control of the Straits of Denmark, the shortage would be acutely felt. And even without this control, Sweden isn't likely to sell to a moneyless nation, in competition with the offers of real gold from the Allies.

Copper, tin, etc. Here Hitler has to depend entirely on outside sources, which are now cut off. It is inconceivable that his hoarded stores of these metals, regardless how vast, can supply his entire needs indefinitely.

Aircraft. Nowhere will the effects of Germany's gold-shortage, and of the British blockade, be more acutely felt than in aircraft production. The very best of materials are needed in this field; ersatz will not do. And even before the incidence of the blockade, before war rendered necessary real cash instead of barter, the Allies had forged ahead of Germany—ahead even of Germany plus Italy plus Russia—in the production of planes.

Competent observers estimate that Hitler can last about a year—two years at the most. Therefore, in order to win, he must beat England and France to their knees within that time.

England and France are not in the habit of being beaten to their knees. Both countries realize that they are fighting for their very existence.

Which is why I say that, regardless of the *immediate* fortunes of war, in the long run Germany cannot win!

Editor's note: The opinions in this article may be considered basically sound. Major Hoar has long been a recognized authority. As this goes to press many of his points are already evident.

Although Poland at first seemed to offer little resistance to the mechanized Nazi advance, it became evident later that the defense had been greatly strengthened, obviously from a pre-arranged plan. Warsaw, although nearly surrounded, still holds out, although Nazis claim victory a matter of hours.

Most interesting is the aerial warfare thus far.

The British have carried out but one raid, and this seems to have been totally ineffectual. The French also have done little. Only Nazi flyers have gone into real action, and it is certain that their activities caused much of the damage to Poland's defense. Does the strange lack of activity mean air attack is not what it is cracked up to be? New rumors that Nazi Germany has as high as 18,000 first line planes as compared with Britain, France, and Poland's 4,500 are staggering, but quite possibly true. Perhaps that mighty fleet will be in action as this is published.

Treachery

OVER THE MAGINOT LINE

BY MICHAEL WADE

With cruel cunning, Captain Hammer framed Larry Wilson for cowardice and murder. But there was more than revenge behind his plot, Larry found.

"This court hereby finds the defendant guilty of the charges and recommends that Lieut. Larry Wilson be deprived of his wings and rating."



"LIEUTENANT LARRY WILSON, I believe."

Fingers stiffening around his glass as he recognized the voice, Larry Wilson turned slowly from the estaminet bar to face the mocking smile of the voice's owner.

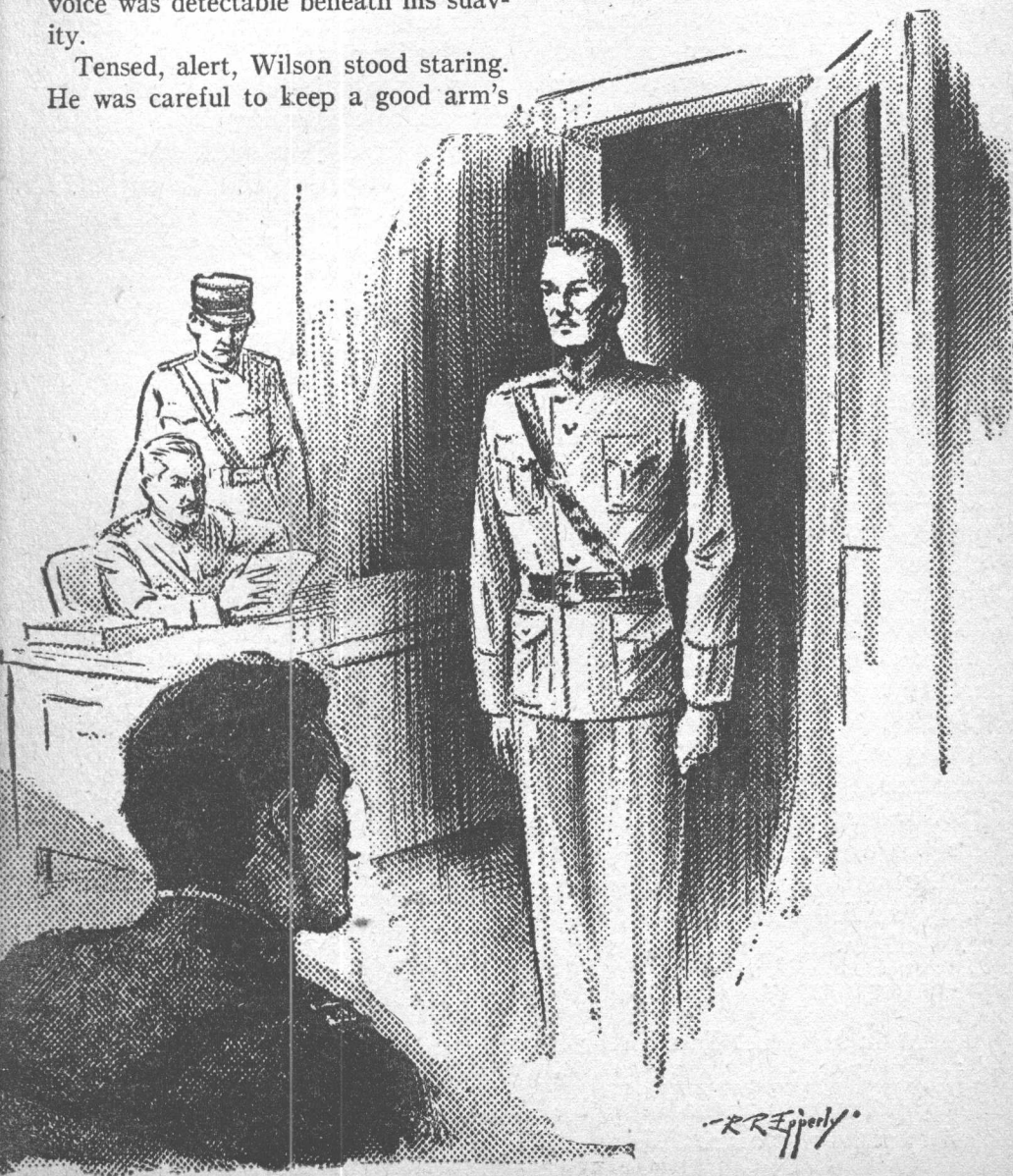
"Captain Hammer!" he exclaimed.

"Welcome," said Captain James Hammer, "to the *89th Escadrille de Reconnaissance*." The irony in his voice was detectable beneath his suavity.

Tensed, alert, Wilson stood staring. He was careful to keep a good arm's

length from Captain James Hammer.

The last time he had seen Captain Hammer, in Paris, just two weeks after Hitler launched his startling invasion of Poland, that round, florid face hadn't been very pretty. In fact, it had been rather nastily cut up. The captain's nose had been spurting claret. One eye was closing. The captain had made several threatening statements at the time. Something about taking care of



a "young squirt" later.

However, Hammer now bent in a mocking bow. "Welcome to the 89th Escadrille de Reconnaissance," he repeated. His lids dropped, veiling his oddly brilliant blue eyes.

Major Massoine, C. O. of the squadron, turned from the bar. "Well, well. My newest recruit seems to be already acquainted. Good thing I brought him in here before taking him over to quarters. You men old friends?"

"I—er, ran into the gentleman one night in Paris," Hammer explained. "While our *friendship* did not have an opportunity to ripen into any lasting bonds, he made—er, quite an *impression* on me at the time."

"Fine, fine," the Major boomed not catching the drift. "I've got a couple reports to turn in. Would you mind taking care of Lt. Wilson? Save a lot of sloshing around in this confounded rain. Show him around, and see that the Sergeant-major assigns him a billet."

Hammer's face was impassive. "I'll be delighted," he said, glancing meaningfully at the replacement. "So your name's Wilson," he said. "I wondered what it was. No one in the Antoinette Club seemed to know."

"I suppose you expected me to come around and apologize?" prodded Wilson, gently.

"No, Lieutenant," Hammer rasped, "I just wanted to see that a certain smart-aleck flying cadet was assigned to the 89th after he'd gotten his wings." There was a gleam of triumph in his eye. "But now—you are here."

"Yes," replied Wilson, slowly, "I'm here. And I want you to be sure and take *good* care of me."

LATER in his billet Larry Wilson inspected his new home. It was certainly not a room at the Ritz. He looked up at the roof of the Sibley tent,

noted the wet smudges coming through.

"No extra charge for bath," he grinned to himself.

He unpacked part of his kit, hanging his helmet and goggles on one of the nails driven in the tent post. He placed a tiny alarm clock on the shelf over the cot. There was a desk, home-made out of an ammo case. On it he placed a large picture of Jean Mercier, General Mercier's daughter. Scrawled across the face of the picture in a bold, legible hand was the inscription, "To Larry—with all my love."

As Wilson pulled off his wet clothing, his eyes kept returning to the picture. He thought of Jean—and of Captain James Hammer—and of a night in Paris.

Wilson had been flying for a French airline when the war broke out in Poland, and with hostilities, his job had vanished. He'd decided to join the French Air Corps, and had been assigned to observation. After two weeks of training, at Salon, he'd been sent to the front. It had been like Jean not to let him know she was returning to France, and so it had been a complete surprise when she'd phoned him.

Every night that he could get a pass, Jean was waiting for him. They had painted the town red. Red beneath the nightly "blackout" against German air raids. Wartime Paris! The old girl was really putting on a show. No matter that the Nazi guns thundered at the Maginot Line, no matter that ambulance trains daily brought in their increasing toll. Men were back from the front, paroled from hell for a few glorious hours. Even giant bombers couldn't stop their fun.

And into the midst of this had plunged two youngsters wildly in love with each other.

The second night, the last night, they had gone to the Antoinette Club for a

late supper. The places had been teeming with beautifully dressed women, with men in dashing uniforms. Larry Wilson had been awe-struck when he recognized several of the leading French *pilotes* in a group at the next table. His fingers had unconsciously crept to the left breast of his tunic, touched where soon would be his own silver wings. . . .

One of the officers was drunk. His eyes glittered as he saw the beautiful form of Jean Mercier at the table. He noted the cadet uniform of her escort, made some remark to his friends which caused a wave of raucous laughter. He came over to the table, swayed in front of Jean, a smirk on his face.

"Come, *cherie*, let's dance," he invited, ignoring Wilson.

He reached out and seized Jean's arm.

Larry rose in his chair. She forced him back with a look.

"Please," she said, "I don't want to dance. Perhaps later," she added, hoping to be rid of him.

Others in the man's party came over, pulled at his arm. "Come on, Hammer. She said she didn't want to dance!"

He shook them off. "I say she does want to dance—with me." A sudden thought struck him. "Know who I am?" He put a finger on the wings. "I'm Captain James Hammer, and I'm *le pilote incomparable*." He slipped his hand across Jean's shoulder.

Then it happened! Larry took one swing at the self-confessed ace, and while Hammer was still swaying, followed up with a right and left that put Hammer completely out on the floor, blood streaming from a cut lip and gory eye. Larry Wilson then grabbed Jean and left the Club, with Capt. Hammer still unconscious, in the hands of his friends energetically trying to revive him.

And now Lieutenant Larry Wilson

was a replacement in the same squadron with Hammer!

He winked at the picture on the desk, grinned, "Don't let it worry you any, Jean.

THERE was a rustle as a uniform rubbed wet canvas. Larry Wilson looked up to see a gloomy-faced officer standing in the entrance-way. A half-wing graced the left side of his tunic. He stood about five-six, looked even shorter because of his stocky build. His lips were pulled down, giving his freckled face a dour expression.

"Hello," he greeted mournfully, "you're Wilson, aren't you? I'm Pierre La Duc—your observer."

Larry Wilson stood up. He was almost an inch over six feet. He was lithe, bone and muscle. Now, clad only in a bath-robe, muscles rippling under the thin covering, he towered over the shorter man.

"Glad to know you," he said, extending his hand. "Why all the thick and heavy gloom?"

"Captain Hammer put through a special request, got us assigned to his flight—to 'A' Flight. And I don't like any part of that *cochon*. He's led more men to their death by his stupidity than anybody at the Front."

"Oh . . ."

La Duc warmed up to his subject. "He can't see his hand in front of his face. He flew smack under a staffel of Messerschmitts last week and lost three of his flight. As a pilot he's a washout."

"But he's an ace, isn't he?"

"That's the way his card reads," growled La Duc. "But the only Nazis I ever heard of him getting were already disabled and he just bulled in and took credit."

A cough caused them to spin around. Captain Hammer's florid face con-

fronted them. A cigarette dangled from his lips, sending tendrils of smoke curling up over his nose and forehead, giving him a peculiar, satanic expression.

"I hope I'm not intruding—La Duc," he said, silkily. Then he faced Wilson. "I just dropped by to say good night, and see that you were tucked under the covers. I want to take *very* good care of my fledging flight member, you know."

CHAPTER II

Under Hammer's Wing

THE excitement and adventure of the first patrol slipped into the second, the third—and before Wilson realized it, two weeks were gone. He and Pierre La Duc got along famously. They downed two Nazis, and came through with an important set of pictures.

This morning their mission was spotting artillery. They had been out something over an hour, circling, hovering. They were flying low, just out of range of ground machine-gun fire. At two thousand, hovering over them like guardian angels, as indeed they were, was a flight of Morain Saulniers*. Wilson glanced at them casually, suddenly sat up very straight.

* The Morane-Saulnier is a single-seat fighter monoplane. It has a low-wing cantilever construction. The fuselage covering forward is metal and aft is fabric. It has a retractable undercarriage. The power plant is one Hispano-Suiza 12Ygrs twelve-cylinder Vee glycol-cooled geared and super-charged canon-engine rated at 860 h.p. at 4,000, (13,120 ft.). The screw is a three-bladed Ratier variable pitch. It has an enclosed cockpit with sliding top, with quick release for emergency exit. Air-conditioned ventilation. Its armament consists of one 20m/m. canon, incorporated in the engine, with two Chatellerault machine-guns in the wings. All gun-control is pneumatic. A Ciné-gun is mounted in the port wing. Equipment includes transmitting and receiving radio, full electrical and night-flying equipment, oxygen, etc. It has a span of 35 ft., length of 26 ft. 3 in., and a height of 8 ft. 10 in. Its maximum speed is 298-310 m.p.h.—Ed.

The lead plane had fired a Very light! A warning signal!

Then he saw the cause of the commotion. Back a couple of miles, at about 9500 feet, diving straight for them, was a squadron of Messerschmitts†.

Wilson glanced at Hammer. The flight leader seemed perfectly oblivious of their approach. Apparently he hadn't even seen the Very! And he was supposed to be Lookout!

Wilson gunned his ship, fell in alongside him, wagging his wings furiously, pointing.

Captain Hammer motioned toward their position, scowling darkly. The flight leader started around slowly—much too slowly. The Nazis would pounce before they closed the turn! The Morane-Saulniers were diving to intercept the Messerschmitts, but from present indications, with the blundering Potez 56-T-3's** having flown head into the Germans for nearly a minute after the warning Very, the Messerschmitts would reach them first!

† The Messerschmitt B.F.W. Bf. 109 is a single-seat fighter monoplane, mounting three or four machine-guns. It is a low-wing cantilever type construction, all metal, flush-riveted, stressed-skin covering. Its fuselage is oval section monocoque. Retractable undercarriage, hydraulic brakes. It has either one 640 h. p. Junkers "Jumo 210" or one 950 h.p. Daimler-Benz 600, both twelve-cylinder inverted Vee liquid-cooled engines. It has V.D.M. controllable pitch metal airscrew. It has an enclosed cockpit over the wing. Its dimensions are unknown.—Ed.

** The Potez 56-T.3 is specially adapted for day and night reconnaissance. They are twin-engine observation monoplanes, used for general purposes. The fuselage is an oval section structure with pointed nose, and covered with plywood. It has retractable undercarriage. The power plant consists of two 240 h.p. Potez 9E nine-cylinder radial engines, air-cooled type, mounted at the extremities of the center-section. It has Ratier electrically-controlled variable-pitch screws. The pilot has an enclosed compartment in the nose. Aft of this compartment is a cabin equipped with radio, photographic equipment, etc. Below this is an external, transparent nacelle for observation duties. Aft of the cabin is a rotating gun-turret. Wingspread is 52 ft. 6 in., length 39 ft. 4 in., height 10 ft. 2 in. Maximum speed, 173.8 m.p.h.—Ed.

Pierre's excited voice crackled behind him: "Look up over the Morane Saulniers! Coming out of that cloud scud!"

Another squadron of Messerschmitts! Now they were really in for it! The Morane-Saulniers had their own necks to take care of. The Potez 56-T-3's would have to run for it! Take care of themselves!

Wilson looked over his shoulder at Pierre, working desperately to get his gun sights on the Messerschmitt roaring down on them.

"Think that damn blind bat Hammer has seen the second *staffel*?" he yelled into the speaking tube. "From the looks of the way we're retreating we're gonna wind up with lead in our bellies!"

"We oughta be scooting for home, instead of up here where we're easy meat for dive thrusts," Pierre shouted back through the tube. "We're hopelessly outnumbered."

Wicked, darting lashes of flame streaked from the Messerschmitts. Then they were past and below.

A POTEZ spun sickeningly out on the first slashing swoop of the Nazis. Wilson didn't have time to see who it was. The Messerschmitts were past them now. They slanted down, to zoom under their bellies.

A couple of Morane-Saulniers gallantly dove after the attacking Messerschmitts. "Atta boy, Frenchy!" Wilson cheered. It took plenty of raw guts to carry out assignments under the present conditions.

A torrent of lead crashed through the floor of their ship. The slugs ripped and tore, searing his body they came so close. Then the crackling hiss ceased—and somehow he was unhit. He glanced back over his shoulder. His heart began pounding against his ribs.

La Duc was slumping down in his seat, a tortured expression twisting his

features! He was hit! And badly! Blood spurted from his mouth, flecked blood. One of those slugs had punctured a lung!

Pierre looked at him piteously and fell over against the belt.

"Murder! That's what it is—murder!" Larry almost broke out crying. "If Pierre dies, Hammer'll answer for it, damn his dirty soul!"

Larry Wilson acted instantly. He whipped the Potez around, shoved the throttle to its limit. He was getting out of here, getting La Duc back to the drome and medical aid. No flight leader in his right senses would ever have held them at this altitude anyway.

The motors' tone took on a relieved whine for a moment, then blared in a metallic roar as the ground rushed madly up. The howl and shriek of the wind was suddenly drowned in the clatter of bullets. Wilson shot a look back over his shoulder, straight into the flaming muzzle cups of enemy machine-guns. He rode the rudder back and forth, squirming desperately. Abruptly the slugs ceased to crackle and whip through the Potez.

Still another formation of planes joined the melee! Dewoitines*, this time! And the Nazis, evenly matched, were pulling out, high-tailing for home!

Wilson leveled off at a thousand. ground fire was coming up. Machine-guns, anti-aircraft. Zig-zagging mechanically, he looked back to see how

* The Dewoitine D-500 is a single-seat, high-altitude fighter. It has a low-wing cantilever construction, in three pieces. The fuselage is oval monocoque covered with smooth duralumin sheets. The undercarriage consists of two oleo-pneumatic suspension legs, the top ends of which are hinged to the extremities of the center-section. The power plant is one 500 h.p. Hispano-Suiza 12 Xhrs twelve-cylinder Vee geared and supercharged engine. Pilot's cockpit over trailing-edge of wing. Adjustable seat, full oxygen equipment, short-wave radio, telephone, etc. It mounts two machine-guns on either side of the engine, firing forward through the airscrew. It has a top speed of 231 m.p.h.—Ed

Pierre was faring. His observer hung limp in his belt, head lolling, lifeless. Wilson yelled into the speaking tube, but got no answer.

Then No Man's Land came up—and slipped back. And the fire was gone. Finally, it seemed hours, he was dropping down toward the 89th's tarmac. He hit in a tail-high, wheel-landing, rocketed the Potez across to the line. He leaped out, shouted at a couple of greaseballs:

"Get a sawbones! Quick!"

Then he returned to Pierre, held him while he loosened the belt. Others helped him now, and they stretched the unconscious observer on the grass.

The flight surgeon shooed them back, bent over Pierre. He undid the flying suit, disclosing a jagged, crimson wound in his chest. He took one look.

"Help me get him over to the shack!"

LARRY WILSON paced up and down the bar room, stopping every once in a while to down another cognac. The medico entered the room. Wilson whirled. "How is he, Doc? He'll be all right, won't he?"

"Take it easy," answered the medico. "Everything is going to be okay. He just needs to be quiet. Any disturbance may upset him. You'd better stay out here."

Only one other Potez had returned from the ill-fated reconnaissance. Captain James Hammer's ship. Wilson hadn't seen the flight leader yet. If—if anything should happen to Pierre—if Pierre went over—Larry Wilson's fists clenched.

And then, suddenly, Hammer's form was framed in the door. His eyes were darting like a snake's. His florid face was a little pinker than usual. He saw Wilson and spoke, his voice dripping:

"I've just made out a report on—"

Wilson interrupted. "You blind mur-

derer!" he rasped. "If Pierre La Duc dies it will be because you held us up there, held us until the Messerschmitts were on top of us."

Hammer ignored the interruption, continued: "I've just made out a report on the fight," he said, silkily. "And turned you in for dogging it—for cowardice."

"What the hell are you talking about?"

"You turned tail in the face of the enemy. Dived down—left your observer unprotected," came the astounding reply.

Wilson blinked in amazement. Of course he hadn't dived until after Pierre had been hit. But—so this was Hammer's way of "taking care" of him!

"You lying, yellow-bellied rat," he snapped evenly. "What do I care about your report?"

"You'll care after the court-martial acts on the testimony of a superior officer concerning one of his flight members," purred Hammer.

"Hell, Pierre will testify as to what really happened. I—" he stopped abruptly. The flight surgeon had just come in. His face was grave.

"I'm sorry, gentlemen," he announced. "Pierre La Duc didn't—didn't make it."

CHAPTER III

Volunteer Show

THE returning court filed into the room solemnly. The president looked at Lieutenant Larry Wilson.

"The defendant will rise," he said.

Larry Wilson stood up. His mind was a raging turmoil. Another minute and he—would know. Captain Hammer's testimony had been damaging—and for some reason, Hammer's observer had lied too, upheld Hammer's

false charges. The flight leader of the Morane-Saulniers assigned to cover them had supported Wilson's contentions that Hammer had held the flight too long, had been guilty of bad judgment in his maneuvering. But—that was bad judgment. Lt. Wilson was on trial for running from the enemy for cowardice—for causing his observer's death. Regardless of the captain's judgment, the court had pointed out, Lt. Wilson's duty was to obey the orders of a superior officer.

Larry Wilson looked straight at the president now, struggled to keep his chin steady.

"The court finds the defendant officer guilty upon the charges and specifications. Under the Articles of War the penalty for a conviction under the article upon which the charges and specification after being deprived of commission, benefits and rank, or any other penalty a court-martial may inflict," he paused.

Wilson swallowed hard. Dismissal in dishonor! And for cowardice! Why, he stood convicted of La Duc's death! The president was speaking again:

"The court has been influenced by the plea of counsel for the defense and by the record of the defendant while a cadet, and while on active duty at the Front. It has also been influenced by a possible honest difference with his superior officer in matter of proper maneuvers under the circumstances. It therefore will recommend that as a disciplinary measure, Lieutenant Larry Wilson will be deprived of his wings and his rating as a military pilot. But that the value of his training and experience and abilities shall be retained by the French Army; and that because of his exceptional qualifications as an observer and a co-ordinator of artillery fire, that he be re-assigned to another squadron as observer."

Grim, haggard, his heart torn by the verdict, Larry Wilson stalked from the room. Why, he might as well have gotten the whole works. They had been lenient. Lenient! There were no half-way measures in a case of this kind. You were either guilty or not guilty. And, for the record, Larry Wilson stood convicted of cowardice, of losing his nerve under fire!

"DARLING!"

He looked up dazedly. Jean! She was here! With him! Through thick or thin!

He folded her in his arms, and the pressure of her there against him eased the pain in his heart.

"I just got here," she sobbed. "I only heard this morning. I came right down. Why didn't you let me know? I could have testified about that—that beast's behavior in Paris—given them the background for his lies."

"I—I didn't want to drag your name in it," said Wilson, slowly. "I thought they would clear me. But—" he was struggling to control his emotions, "they've branded me a coward!"

Jean put her fingers against his mouth. "Don't talk like that, dear. Don't even think of it. I know and you know that you're not a coward. They can't *make* a coward!"

A sudden inspiration came to him. "Jean!"—he held her off at an arm's length—"I want you to do something for me."

"Anything," she promised.

"I want you to see your father. He, being a General, can use his influence so that I can be reassigned to the 89th. It won't be easy—ordinarily I would be transferred to another squadron. But—you see him. Give him the whole story, tell him I've *got* to be sent back there, to be able to clear my name."

"Our name," she said, kissing him.

"I'll manage it," she added, chin out and a fierce little light burning in her eyes. "We'll make that beast admit he lied. I—" suddenly she was crying.

L. T. WILSON, observer, L'Aviation Militaire, stepped down from the car, tossed the driver a five-franc note. He squared his shoulders, walked across the tarmac of the 89th *Escadrille de Reconnaissance*. The sun was shining. Several planes were on the line warming up. The tableau presented a more cheerful aspect than on that day—was it ten years ago—when he had first set foot on the field?

But to Larry Wilson it did not appear that way. White-lipped, uncertain of his reception, he walked through the doorway into the bar.

There was a tense, jagged silence. Then André Ledeau roared: "Larry! Glad to see you!" He ran over, clapped his arm around the arrival's shoulders. "Come on, everybody! This calls for drinks!"

And the others were around him, pounding him on the back, asking questions. But no mention was made of the trial, of its outcome. Of the fact that Larry Wilson's left breast was decorated with only a half-wing. Of the fact that he had been convicted of cowardice.

The mess orderly had just set glasses out when Captain James Hammer strolled in. His pink face worked in mingled disappointment and elation.

"This place stinks," he announced, turned on his heel.

"You're damned right it stinks, you rotten, yellow rat!" Larry started forward, but Ledeau grabbed him.

"Easy does it, Larry," he cautioned in his ear. "Socking that rat won't help. We all know why you're back here. Don't ruin things by socking a superior officer."

The red haze faded from Wilson's eyes. He clenched the glass in his hand until his knuckles were white. "Okay, André," he said, hoarsely. "You're right. I didn't come back here just to take a sock at that rat."

"Let's sit down over at a table," suggested Ledeau. "Things have been happening since—since you were away."

"The trial hasn't been such a complete success for our friend Hammer," Ledeau continued. "The boys around here feel that you got a raw deal. And they think Hammer's judgment is pretty rotten. So rotten, in fact, that he has been removed from flying and is now the squadron adjutant."

Another thing Wilson learned. For the third time within a week, while ships of the 89th were spotting artillery fire, Allied troops had been caught in a vicious cross-fire when advancing. Artillery reported that Very signals from observing planes caused them to lower their zone-fire. And thereby dump a hail of death and destruction down on the heads of their own comrades!

"I was on one of those patrols," said Ledeau, grimly. "I know every man on the flight. I didn't send any such signals, and I'll bet my last franc that none of them did."

"What's the answer?" asked Wilson.

"I—I don't know," replied Ledeau. "I wish I did. I've always been leery of your friend Hammer. He's led too many flights into traps—and come out without a scratch himself. But he isn't out on the patrols, has nothing to do with our Very signals—couldn't have when he's not in the air." He shrugged hopelessly. "It's got me," he admitted.

"Might try changing codes," suggested Wilson.

"We have," said Ledeau. "Twice this week."

A sudden thought occurred to Wilson. "What about Pirnand? That non-

com who observed for Hammer?"

Ledeau shook his head. "He's back on motors. No one would have him as an observer after—after the trial. By the way," he added, "I've asked the major to assign you to fly with me. Hope you don't mind."

Larry Wilson groped for his hand. "Thanks, André," he said, a tremor in his voice.

As usual, after evening mess, the personnel of the 89th gathered at the bar. In one corner a group played stud poker, in another corner two men huddled intently over a battered and worn checkerboard. Several merely stood around discussing the events of the day, and a few, the chronics, were at the bar, drinking.

Lt. Wilson and Lt. Ledeau engaged in a heated game of chess. Within the short week since Wilson's return, they had already become the warmest of friends.

Several fellows clustered about a freckled-face red head playing a banjo. There came forth a series of hummings, moanings, and screeches—and finally Leon Desautels, who possessed a really good voice took up the lead.

*A young aviator lay dying,
At the end of a bright summer's day.
His comrades had gathered around him,
To carry his fragments away.*

*The aeroplane was piled on his wish-
bone,
His Lewis was wrapped 'round his head.
He wore a sparkplug in each elbow,
'Twas plain he would shortly be dead.*

*He spat out a valve and a gasket.
As he—*

"Attention!"

THE men looked around to look at Captain Hammer, the adjutant, in

the doorway. They didn't quite get this stuff. No one made any attempt to assume an erect, attentive position.

"Attention! Fall in!"

Then they saw the C. O. coming through the door—and caught the drift. Major Massoine paused in the middle of the floor, cleared his throat.

"Gentlemen," he began. "I have just received orders from Wing to carry out an unusually difficult mission. Intelligence has word from one of its ace operatives that contact must be established with him *tonight* on a matter of *supreme* importance. That can be accomplished in only one way at this late hour. A man must be flown over the lines and dropped by parachute.

"The pilot can drop down from a high altitude, motor off, and manage it without detection. The pilot will then continue to glide for some distance before opening his motor, and in this way divert any possible attention from the parachute.

"The pilot will return to a prearranged spot in exactly two hours, pick up the man after he has established contact with the operative, obtained the information." He paused, coughed.

"In view of the hazardous nature of the assignment, I have decided to ask for volunteers." He paused again. "First, will a volunteer observer step forward?"

Every observer in the outfit moved forward one pace. Larry Wilson noted their action, took a second step forward. "I think I rate that job, Major," he said quietly.

Hammer was standing just back of the C. O., a sneer on his face. "I thought this was a man's job?" he said, in a low voice.

Major Massoine whirled upon him. "Hammer," he snapped, "when I want any assistant thinking, I'll let you know." He faced the assemblage again.

The line moved back in even formation with the pilots! Every man except Larry Wilson! The men of the 89th, to show exactly how they felt about the matter, were dropping out in Lt. Wilson's favor!

Major Massoine smiled quietly. "Well, it looks like I have no choice, Wilson. I accept your services. I was going to accept them anyway," he added in a voice that all could hear.

And then a volunteer from the pilots was requested. And again the entire personnel stepped forward.

The C. O. glanced at Wilson, back to the line. "Ledeau," he announced.

AFTER the formation was dismissed, Major Massoine summoned Ledeau and Wilson to the Operations shack where they went over their plans in detail.

"You are to meet the operative at this deserted farmhouse at one o'clock this morning," said the major, glancing at his watch. "It's only 7:30 p. m. now, we've got plenty of time. I think around eleven-thirty would be okay for the take-off. What do you think?"

The two men nodded agreement. Wilson looked down at a strip map he had been studying. "About four kilometers due east of this little village, I'd say. I hope there are some lights for a landmark."

"Oh, I'm sure there'll be lights in the village," said the C. O. "But you don't want to fly over it. And, of course, there won't be any lights at the little field where you're to land."

"Why can't I just land with Larry instead of having him make a jump?" interposed Ledeau.

The C. O. shook his head. "That's just the point I was making. There won't be any lights at this little field we've selected. We don't know whether it's full of rocks and gullies or what.

Wilson can make his contact, examine the terrain. And if it is necessary, just before you come in for a landing, he can light a flare for your guidance. You'll have a warm motor. You can touch long enough to pick up Wilson, then take right off again without delay."

"Yeah, that's right, Jim," added Wilson. "If you landed me, there would be a long wait. Your motor would get cold. We might draw down the whole Nazi Army before the motors started hitting on more than two cylinders."

"Provided you hadn't already washed out a landing gear getting down," echoed the major.

"*Tres bien*," said Ledeau, but shaking his head in disagreement.

They measured distances on maps, made calculations as to the height the ship would have to climb before it would be within gliding range of their destination.

"Five thousand meters should do it."

Wilson was frowning. "What puzzles me is why that operative didn't just send whatever message he had right on through. If his contacts were good enough to get through with word that he had information—"

Major Massoine shrugged. "Does sound funny," he admitted. "But there must be some reason why he didn't. Anyway, those are our orders and we've got to carry them out."

Wilson flushed. "Yes, sir," he said.

The C. O. cleared his throat. "I didn't mean it that way, Wilson," he said quickly.

A line of shielded lights had been placed down the field, giving them a path off the ground. Every man of the 89th was on hand to witness the nocturnal take-off.

Major Massoine huddled with the two men, going over instructions for a last time.

"You're sure you won't need oxy-

gen?" he asked again.

They shook their heads negatively.

Ledeau glanced at his watch. It was eleven-twenty-five. "Well," he announced, "it's time to go bye-bye."

Wilson climbed into the rear observer's seat a little awkwardly. He still had to restrain himself from starting for the pilot seat.

Ledeau slapped the throttle down, and the Potez roared across the field. The lights flitted past faster and faster, and then dropped away from the ship. The pilot held the nose of the fast ship in a steep climbing spiral, directly over the field. They circled until the altimeter pointed to four thousand meters, and then slanted toward the lines, still climbing steadily.

The motors were humming like clocks. The needle hovered on 5000 meters. They moved along on an even keel for a moment or so, then Ledeau suddenly cut the motors, and put the nose over in a gentle, powerless glide.

The silence was awe-inspiring after the steady whining drone of the motor. The wind thrummed back gently, softly caressing the fuselage, plucking subdued little wails from the wings.

CHAPTER IV

Somewhere in Germany

IT seemed that the Potez floated down through space for hours. Had they made a mistake in their navigation problem? The ground was not getting any farther away. They couldn't afford to miss now. And then Ledeau's voice suddenly came through the earphones:

"*Bien*, Larry, get ready to jump! This looks like it!"

Wilson studied the faint, guarded lights carefully. It was the village, all right. The nose of the crate swung back to the left, eastward toward the farm-

house. Wilson was still cold from the high altitude. His teeth were chattering, and his hands were all thumbs. He unclasped the safety-belt, stood up in the pit, and suddenly jerked. The chute was hung on something. He leaned over in the darkness and gave the harness a yank.

Snap! A web strap parted! He pulled on another strap. It parted like wet tissue paper! He tried two more—and they broke! A savage curse ripped from him.

"André!" he yelled. "Somebody's been tampering with this chute. The harness straps are rotten or something. Must have put acid on them!"

Ledeau twisted around. "Some of that *cochon* Hammer's work, I'll bet you a thousand francs!" He tested his chute harness. "Mine seems all right but I'd be afraid to have you trust it now. I'll have to land and wait for you."

Larry Wilson nodded. It was the only thing they could do now.

The wind sang a gentle lullaby, the motors gave a throaty little gasp once or twice and Ledeau cut the switches. The dark field was rushing up at them. It was hard to judge its length in the blackness, just where to start the gliding turn.

They were settling fast. Wilson squirmed in the cockpit as he felt tree-tops brushing against their wings. Then there was a heavy crunching sound and the wheels were on the ground. Through the darkness the far edge of the field sprang at them. Ledeau slapped rudder and applied opposite stick, came around violently — just missing a ground loop.

"Well," sighed Wilson, "we're here!"

"Yep," replied Ledeau. "You toddle along over to the farmhouse. And don't spend the night," he added. "I don't like the climate around here." It was

12:15 a. m. and they were scheduled to meet the operative exactly at 12:30.

L T. WILSON shifted his position uneasily on the front porch of a farmhouse some thirty kilos back of the Siegfried Line, peered anxiously out into the darkness. For about the tenth time in the last five minutes, he glanced at the luminous hands of a wrist-watch.

Three-thirty! Three hours later, and still no sign of the operative.

He made some rapid calculations. The waiting Potez was a good ten minutes across in the neighboring field. If the operative would only come, he still had time to make it. But just barely. Dawn was at 4:03 a. m.

What had happened? Had the operative been caught?

Suddenly he tensed. His eyes strained. Was that a shadowy form moving along on hands and knees? It—Yes! Some one was over on the opposite side of the farmhouse, moving toward him!

He snapped the safety-catch on his automatic, crouched a moment—watching. Then he crept to the side of the house. He gave a low whistle.

The figure stopped abruptly. Silence. Wilson whistled again, the first bar of the *Marseillaise*.

"French?" croaked a voice.

Wilson's heart leaped. At last!

"French!" he called. He came out into the open, went toward the figure. The man had fallen to a prone position, and as he approached him, Wilson had a bad moment. Perhaps it was a trap. But, no! He stood over him now. The man was wounded! He was panting for breath, apparently exhausted by the effort of getting this far.

"Hurry! Get me inside!" he gasped. "Thank God you waited!"

Carefully, Wilson picked him up in his arms, stumbled inside the farm-

house. He felt the warm dampness of blood oozing over him.

"Are you hit bad?"

"Pretty bad—I'm afraid I'm done for," replied the man weakly. "But never mind that. I haven't much breath—listen—don't interrupt."

Wilson lighted a cigarette for him.

"No!" the man cried out. "No lights! They're looking for me every where." He struggled with something under his coat, pulling out an oil-skin packet. "The Nazis have two spies planted in the *89th Escadrille de Reconnaissance*. Hauptmann Hammer and Kurt Schmidt—"

"Hammer! Captain James Hammer?"

"Yes, here," he handed Wilson the packet. "Proof—all that is needed. Hammer is one of these Alsace-Lorraine Germans who has spent all his life in France and then turns traitor! But enough—I must go on. Hammer has been furnishing the Very light codes used by the French planes to relay artillery observations." Wilson jumped. "The Nazis sent up planes. Whenever an Allied advance gets under way, they signal to lower the zone barrages, causing French shells to fall on French troops."

"Of course! Why didn't I think of that?"

The man went on weakly. "The Nazis have word of a big Push in the morning, is that correct?"

Wilson nodded.

"They plan to work the same trick, wipe out thousands of our troops in the cross-barrage. You must get back to stop that advance."

"I'll get back," promised Wilson, grimly.

THE operative suddenly grew much weaker. He had a bad coughing spasm. Blood gushed from his mouth

and nostrils. Apparently only an iron will had forced him to drive his body on to deliver the vital information. He began speaking again, in a voice that was barely audible.

"They—were—watching me. I—knew it. I—was afraid—to trust my information through routine channels. It—might—have been intercepted. I—wouldn't know—until too—late. I—I had—to be sure. This—was—the only—possible way. If you—hadn't come—hadn't waited—I was going to get across—across the lines—somehow. I—" the words trailed off.

Wilson bent over him anxiously.

"What—time—is—the—advance?"

"The advance is set for 4:38 a. m.," he replied aloud.

Wilson started. The advance was scheduled for 4:38 a. m.! It was 3:46 a. m. now! Not only that, it would be dawn in a few minutes! He had to get back to the waiting plane! He could get word back by radio.

"Here, I'm going to carry you back with me. You can't stay here."

"No," protested the wounded man. "I—I'm—done for. Don't bother—thanks. You—go—on. Stop—Stop—" the words ceased, his head slumped.

Wilson felt his pulse. Uttering a little prayer, he stood erect, brought his hand up in salute. Then he ran from the house, back into the clump of woods that bordered the farmhouse.

He had hardly taken a step when a noise halted him. A sharp report, like a dead limb breaking. He stopped, holding his breath, listening tensely.

For a moment there was a jagged silence, then came a cautious footstep—followed by more silence. Wilson had his automatic out, clutched tightly in his hand. The noise was coming toward him, he would just have to wait. If he moved he would expose himself.

He squatted. Glanced at his watch.

Every second counted now. And yet he couldn't take a chance on moving.

There! The sound was much closer, coming steadily. He strained through the darkness, and finally caught sight of the skulking figure. Less than ten feet from him!

Another bough snapped.

"*Sacre Bleu!*"

Cripes! That was good old French cussing! Suddenly the truth dawned on Wilson. The figure was André! He could make him out now! He called:

"*Holdà, André!* Where are you?"

The figure practically turned a somersault in surprise, then with much muttering and mumbling, rushed over.

"Larry!" he greeted, in a relieved tone. "I thought they'd got you, *mon ami.*"

Wilson explained about the operative. "Come on, let's get back to the plane. It's almost dawn. We've got to radio the information."

They plunged through the thicket, more intent on speed than anything else. If daybreak came and the Potez was still out in the field, they were goners.

Twice, as they half-walked, half-ran, Wilson saw the eastern sky growing pale. He glanced at his watch fearfully. Checked with André's. They were together.

As they ran, Wilson told Ledeau everything that had happened.

"Dieu! I will enjoy getting my hands on Hammer!"

"Will I," corrected Wilson. "Remember—Hammer is my meat."

"*Bien,*" agreed Ledeau. "But remember—I want one blow at the *espion* after you've finished."

CHAPTER V

Flight to Glory

THEY came out on the field. Ledeau dashed across and got in the

plane, switched on the starter. The motors caught on the first turn. It sounded a thousand times louder than it ever had before. Ledeau taxied to the end of the field, warming up the motors in bursts.

The eastern sky was actually growing light as they shot across the ground and into the air. At a thousand feet, the Potez was bathed in sunlight, though the earth below was still a black morass.

The take-off had not been a minute too soon!

Larry switched on the radio. "*Hocco, hocco, hocco,*" he chanted the code word for the 89th's drome into the mike. He listened intently. No answer. Again he tried. No reply. The transmitter was dead! A swift inspection confirmed his fears.

Wilson glanced at his watch. 4:02 a. m. They had exactly thirty-six minutes in which to fly back across the lines, land on the 89th's tarmac, and stop an Allied push! But if word could be gotten through to Wing just a few minutes ahead, they would manage. They were on "alert" for something of this nature.

But if they should encounter enemy aircraft, be forced to stop and fight to protect themselves, then it would be serious.

There had been nothing miraculous in their flight across the lines; their managing to land undetected. It was often accomplished. In the darkness, without noise. There was nothing to give them away. But now—in broad daylight, coming from the Nazi side at low altitude was a different story.

Wilson pictured the activity taking place on the ground. Outposts radioing guttural warnings ahead. Telephones ringing at half-a-dozen *jagdstaffels* between them and the lines. He imagined hordes of Nazi planes soaring up to intercept them.

And a couple of minutes later it was no longer necessary to rely upon imagination! Through the grey vapor that shrouded the early morning sky, he saw Messerschmitts! Four — five — more! Everywhere but in front of them. The German dromes at this particular sector were situated far back of the lines. They were receiving the warnings, all right. But they had to give chase rather than block the fleeing French plane.

Ground-fire was peppering them. Rather than waste time climbing for altitude, Ledeau was holding the nose level on the horizon, speeding for the lines in the shortest possible course of flight.

And the Messerschmitts behind were gaining! But—by all the gods!—they were approaching the lines! And no enemy planes had managed to cross in front of their path to block or delay them. It was almost too good to be true! And yet, there it was down in front of their nose: the gouged and scarred terrain of No Man's Land!

Nazi antiaircraft blossoms began flowering the sky. They seemed furious that this French plane was escaping. The angry coughs of the black, yellow-colored bursts seemed to confront them at every turn, to present a solid barrier through which there was no passing.

Ledeau rocked the plane, zig-zagged. One, two, three, four, five, and six—and turn. Six—and dive. Six—and turn. Six—and zoom. The erratic course was the best and only, real insurance against the Nazi guns.

A burst suddenly exploded practically under their right wing. The loud cough sounded like a giant clap of thunder in Wilson's ears. A clap of thunder followed by a sharp click as shrapnel exploded and hissed its lethal path through the air. A jagged hole appeared in the surfaces of the wing.

Whew! No use ducking now, but

that had been a close one!

He looked back over his tail, looked at the black splash which had almost been "it." The smoke was shaped like an inkspot.

Wilson checked on the pursuing Messerschmitts. The nearest was a good two miles behind! And, directly under them, was the Maginot Line! They had made it! They were back over the lines! Back in French territory!

Ledeau yelled back exultantly. The stick moved forward, and the nose of the Potez slanted down.

IT was fully light when the 89th's tarmac shot into sight. There was a slight morning mist, but not enough to hide the long row of ships out on the line, warming up. Apparently the whole squadron was standing by.

Ledeau fish-tailed violently over the tree-tops, brought the twin-engined crate in almost on top of the hangar tents. The Potez hit in a stall landing and rolled to a stop within a hundred feet.

As the nose of the ship came around, Wilson saw Major Massoine running toward them from the Operations shack.

Ledeau yelled back: "You give the major the lowdown, and take care of Hammer! I'll run over to the repair hangar and have a little chat with Herr Schmidt, alias Pinnand.

Larry Wilson legged from the pit, ran to meet the C. O.

"Wilson! We'd given you up! Did you make contact?"

"Yes," cried Wilson, "come on! You've got to call and stop the advance! Hurry! I'll give you the details while you're phoning. Hammer's a Nazi spy," he added, unable to withhold this bit.

Lt. Wilson supplied him the missing facts as the Major put through his call

to headquarters, calling off the push. "You don't need me any more," Wilson blurted as he dashed out toward Hammer's billet.

The noise of the warming planes was suddenly broken by a sharper, thinner sound as one of the Potez ships was revved up.

"Any patrols scheduled to take off?"

"No," replied the major. "All flights have been cancelled."

With a leap, Wilson was through the door. Sure enough! A ship was darting from the line! He couldn't make out the men in the seats, but it wouldn't take any magician to guess who they were! Hammer must have gotten wise, gotten word to Schmidt, and they were escaping! The mere fact that Wilson had returned must have alarmed them.

Larry Wilson ran across the apron, jumped into the nearest Potez. He yanked the plane around in an instant, shot onto the field. He had hoped to cut across the path of the plane taking off, but he was a moment too late. Missed by feet! They would get into the air!

Wilson did not hesitate. Without even waiting to come around, get into the wind, get the field in front of him, he fed throttle, prayed the Potez off the ground in a dangerous cross-wind take-off.

CHAPTER VI

Award for Valor

THE zooming plane sagged, mush-roomed through the air, finally built up flying speed. He rode rudder recklessly, pulled in behind Hammer. Less than five hundred yards from the fleeing Potez. Five hundred yards! Just outside of effective shooting range. He had to close that gap.

He glanced back under his tail.

Other ships of the 89th were slanting upward, declaring themselves in on the fun! He looked through the gleaming prop arc. The Potez had moved back a little! Perhaps the added weight of an observer was making the difference. Or it might have been that the motor wasn't fully warmed. At any rate, he had narrowed the gap by almost a hundred yards!

He tripped the machine gun in a short warming burst.

The two planes were flying at almost the same altitude. Hammer's perhaps fifty or seventy-five feet higher. This was exactly the way Wilson wanted it. He could come in under their tail.

He could see Schmidt working furiously with his guns. The range was less than three hundred yards! He saw spurts of flame dropping from the gun's nozzle. He held the plane in his sights, thumb tensed against the trips. But he still held off his fire.

He took one last glance over his shoulder. Potez ships seemed spread all over the horizon! Apparently every 89th plane was in the air! But only two were anywhere close.

Wilson cursed them softly. Hammer was his meat.

Leaden slugs began striking their mark. Little dents and holes sprung up on the wing surfaces. He heard the snap and crackle of the pellets as they streaked past his ears. If one happened to hit the prop!

His thumb tightened on the trips, the guns raged, rivet-hammering their molten messages through the tail of the other. He had intended holding his fire a moment longer, but he had to worry Schmidt by distracting his aim or he might score a hit on the wide, sweeping arc of his prop.

He saw the line of tracer connecting the flaming muzzles of his guns with the traitor Potez ahead. And for every

visible streaking slug, six other red-hot missiles hissed toward their mark.

He eased the Potez slightly, spoiling Schmidt's aim. The other plane suddenly veered off about twenty degrees. Apparently Hammer thought his gunner was handicapped, firing back over his tail, giving Wilson a free target.

THE slight change in course brought Wilson just that much nearer. He could see Schmidt's scarred, pock-marked countenance. Suddenly Hammer twisted his head around. Wilson jabbed the trips, sending vicious bursts toward that face at almost pointblank range.

He was ignoring maneuvers. Ignoring everything. Just riding straight ahead, straight for his target. It was his best possible attack at that, but Wilson wasn't thinking of best possible attacks. Of the best aerial strategy. He was thinking of one thing, and one thing only. He was going to bring down that lying traitor ahead—bring him down if he had to keep riding straight ahead and ram him.

But as Hammer's face twisted back, Wilson caught him squarely. At less than a hundred yards! With the hissing of hell in his ears he held down the trips. The guns bucked, blasted. The flame and smoke cleared away.

Hammer still seemed to be looking back, but his once florid face was a dreadful, horrible blotch of crimson, shredded, bone and flesh! His features seemed to have slipped, like a melting mask, and drenched down over his chest! Wilson's fire had caught him full just as he looked back! Looking at the man he had falsely sworn to disgrace, he had received a burst of molten lead squarely through the eyes, the nose, the mouth!

The plane went over like a brickbat. Schmidt clawed wildly trying to engage

the dual controls. But he never had a chance. The plane plummeted earthward, roaring straight down, motor full out, to crash from an altitude of a thousand feet. It exploded in a blinding geyser of rioting flame and embers that reached up almost a hundred feet.

BOOTs and Sam Brownes glistening, two officers of the French Army Air Service moved into the courtyard. There was a company of French soldiers, under arms. Officers stood in the center of the courtyard—officers with gold leaves on their hats—officers in full dress uniform.

André Ledeau nudged Larry Wilson in the ribs. "Gee! Look at them, would you!"

Larry Wilson whispered from the side of his mouth. "Every blamed general in the whole war, look's like!"

"I don't see why they had to drag us all the way to Paris. They could have just mailed the medals."

"Company—*Atten-shun!*"

The soldiers snapped erect as the sounds of commands echoed over the courtyard.

"Lieutenants Wilson and Ledeau! Front and Center! *March!*"

The two warbirds stiffened. Shoulders back, they stalked toward the group of brass-hats. A band began playing.

As Larry Wilson marched, his eyes dropped down once, down to the left breast of his uniform. They rested a moment on the bright and shining *full wings*, then they lifted proudly. And with chin sticking out just a little farther, he marched on.

"Officers, *Halt!*"

Back of them a command rang out. "Present *arms!*"

Ledeau whispered. "I'd rather make that hop over as to go through with this show. I'm scared stiff!"

Wilson suppressed a desire to guffaw. "Yeah, me, too! I wonder if those French generals are going to kiss us!"

And then one of those French generals was standing in front of him.

"In the name of the Republic of France, as the Deputy of his Excellency the President of the Republic, I name you a Chevalier of the Legion of Honor—"

And a sword flashed and touched him on each shoulder, and a hairy hand affixed the Cross of the Legion on his tunic, and a mouth, a man's mouth, was kissing him on each cheek.

Someone else: "In the name of . . ."

The form moving into his vision. It—why! It wasn't a uniformed brass-hat! It was golden hair glinting in the sunshine, the light of devils in her rich brown eyes—Jean Mercier!

"In the name of the French people, I present . . ." And then the feel of her white hand on his tunic, attaching something with red, white, and blue ribbons on it. She raised on tip-toe, kissed him! Not on the cheeks, but squarely on the lips!

A voice, André's voice: "I'm next!"

General Mercier came up then. Prancing and snorting like an old warhorse. "Disgraceful! What an exhibition, young lady! You knew better than that! You didn't kiss me during rehearsal!"

She grinned at him like a little minx.

"Ought to court-martial you, that's what!" He was glaring at Larry Wilson now. "A lowly Lieutenant being made love to by my daughter! And on a public parade-ground!"

"Oh, mon père," interrupted Jean, sweetly, "I was just coming to that. Don't you think you ought to promote Larry"—her brow puckered prettily—"say, at least to a colonelship? It's so hard for a general's daughter to live on a lowly Lieutenant's salary!"

Forgotten Heroes

By David Robinson George



THE saga of the Lafayette Escadrille has been told often; the sequel, never. Stories, novels and films about those American volunteers who flew for France before their country entered the World War usually have drawn the curtain at the Armistice. But only ten of the thirty-eight members of the outfit were killed in action. What of those who came back alive? What has been their lot?

As heroes, they've been forgotten by a short-memored citizenry. But as men, they've had new adventures in civilian life which have demanded the same cool courage and indomitable spirit with which they faced the deadly Richtofen circus.

Some of them are wealthy; some are in dire financial straits. Some are happily married; others have met domestic tragedy. One, an incurable soldier of fortune, has spent months in prison. Several still suffer from war wounds; others, invulnerable to Boche bullets, have been easy targets for peacetime illnesses. Another, who loved life wisely, but not too well, met humiliating death in the gutter. The occupations of the rest represent a cross-section of American life.

In a dingy little antique shop in Freeport, Long Island, for example, the proprietor is distinctly out of place. A well-built man in his fifties, clean shaven and with graying hair, his athletic carriage and polished manner belie his unmatched, unpressed suit. From the moment he removes his pipe, smiles

and speaks, you realize he's a gentleman and a soldier.

Ask him, and he'll admit proudly that he's Major Robert Soubiran, veteran member of *l'Escadrille Lafayette* and the last commanding officer of the unit after its transfer into the American Army in 1919 as the 103d Aero Pursuit Squadron.

In that humble shop, on the wall of which hangs the original drawing of the Yank Spirit—the colorful head of an Indian chief in a war cry used by the Escadrille as its insignia—he'll show you his priceless collection of documents and photographs, and talk.

The Major has fallen upon evil days. With his income cut to practically nothing, this brave man who risked his life to "make the world safe for democracy" even has been barred from the WPA rolls.

Relief officials, of course, know nothing of his brilliant war record. Unlike many American veterans, some of whom never got overseas, he has been too proud to capitalize on his exploits.

Sixty percent of those young chaps who joined the Escadrille were college men; Soubiran was not. Son of middle-class New York parents of French descent, he was twenty-seven and a racing car driver when the war broke out in 1914. Eager for adventure and stirred by the call of his Gallic blood, he went at once to Paris, where he enlisted in the Foreign Legion, most of which was then at the front. Although he was wounded the next year, the

Once more a war rages, and new heroes are daring the skies. But what of the air heroes of 1918? Where are they as a new war begins?



Insignia of the La Fayette Escadrille

Legion failed to provide him with enough action. When he heard that the Escadrille was being organized, he obtained permission to enter the flying school at Pau, and eight months later joined the squadron at the front, an accomplished pilot.

A demon on the dirt tracks, he fought with the same devil-may-care daring.

Off duty, he lived the life of an Epicurean. As befitted those who were about to die, the French Government provided them with all possible comforts. In addition, the late William K. Vanderbilt contributed the equivalent of \$80 a month to each of them. Half

Lafayette Escadrille Members Who Came Back Alive and Their Victories, Official and Unofficial

Pilot	Official Victories	Unofficial Victories
Edwin Parsons	10	7
*William Thaw	8	15
Bert Hall	5	10
*Elliot Cowdin	5	7
Didier Masson	3	6
Clyde Balsley	3	4
Dudley Hill	2	7
*Ralph Doolittle	2	7
*David Peterson	2	5
Robert Soubiran	2	5
Charles Johnson	2	4
Robert Rockwell	2	4
*William Dugan	2	3
*Walter Lovell	1	6
Christopher Ford	1	5
Willis Haviland	1	4
Kenneth Marr	1	2
Frederick Prince, Jr.		7
James Norman Hall		6
John Drexel		5
Charles Dolan		5
Harold Willis		5
Harry Jones		3
Lawrence Rumsey		3
Stephen Bigelow		3
Ray Bridgman		3
Thomas Hewitt		2
Edward Hinkle		3

Official list of American Aviation Aces who gained five or more air victories but who were not in the Lafayette Escadrille.

	Number of Victories
Edward V. Rickenbacker	26
*Frank Luke, Jr.	18
*Victor Raoul Lufbery	17
*David E. Putnam	12
Reed G. Landis	12
Fields Kinley	10
George A. Vaughn, Jr.	10
Jacques Michael Swaab	10
Thomas G. Cassady	9
Chester E. Wright	9
William P. Erwin	9
Elliott W. Springs	9
Henry R. Clay, Jr.	8
James A. Meissner	8
*Hamilton Coolidge	8
G. DeFreest Larnier	8
Paul Frank Baer	8
Frank O. D. Hunter	8
*Wilbert Wallace White	8
Clinton Jones	8
Reid M. Chambers	7
Harvey Cook	7
James Alfred Keating	6

* Died since return to States.
Confirmation from three sources was required to make a victory official in the French Flying Corps. Thus, while there is no question about most of the unofficial victories, they cannot be listed as official.

of this went to improve the already exquisite cuisine, and the remainder for the best of liquors.

Leaves to Paris were easily obtainable and frequent, and the boys had their pick of French women, to whom *c'est l'guerre* (it is the war) covered a multitude of sins.

Shortly before the battle of St. Mihiel, Soubiran fell in love with a French girl and married her, amazing his comrades by this bid for domesticity in the face of their common insecurity. But he was lucky and came out of the war alive and a Major.

He returned to the United States with his wife for a year, during which the first of their three daughters was born, and then went back abroad in a good job as a sales manager for General Motors. For the next ten years, he did well, until in the depression lay-off of 1931, he lost his position and was forced once again to return to this country. But this time, the only job he could get was as a \$35-a-week relief supervisor at Rockville Centre, Long Island.

In 1936, he got a better position with the Roosevelt Raceways, and the following year, succeeded in getting back with General Motors. Then, in 1938, just as he was beginning to pay off the huge debts he had accumulated, he was laid off again. Soon the Soubirans found themselves in desperate circumstances. To keep the wolf from the door, the Major applied once more for a relief job, and was made foreman on a construction job at \$15 a week.

Even that stop-gap was short-lived. When relief officials discovered he had \$180 in unemployment insurance due him as the result of his last connection with General Motors, they dropped him from the rolls until he could collect and use this benefit. It has taken him nearly six months to get it—in installments far

short of his needs. He has managed to augment this meager income slightly by taking care of the shop owned by his sister, whose husband is ill and requires her constant attention. Soon Soubiran will receive his last benefit check, and then he'll be eligible again for relief work. Meanwhile, his family is destitute.

You wonder why he doesn't look for a job flying. Like his compatriots, he flew during the war for the thrill—and for a cause. But in peacetime, as the mature head of a family, he feels he can't risk it. Then, too, he's old now, and aviation wants young men.

THE Major is not alone in misfortune. Charles Johnson, who joined the Escadrille as a small, dapper lad from St. Louis, is still fighting, but not from a cockpit. Like Soubiran, of French descent, and known familiarly by his middle name, Chouteau, he seemed to lead a charmed life at the front. Always in the thickest of combat, he saw nearly all of his early comrades killed. After a year and a half of it, he could stand the tension no longer, and accepted a post as flying instructor at the American school at Tours. By 1918, he had been made a Captain.

After the war, he became associated with a brokerage firm, and was moderately successful during the next few years. In that time, he married, became the father of a daughter and was divorced. Then, in 1929, his luck changed and in quick succession, his second wife died, he lost his job and developed cancer of the throat. His illness, doctors said, may have been due to his habit of chain-smoking cigarettes, acquired in his long gamble with Death at the front. But this could not be proved, and he would not have accepted aid from either the French or American

government if he could have obtained it.

His funds exhausted long ago, Captain Johnson finally has been sent to Bermuda, through the generosity of a wealthy friend, to continue his battle for life.

Clyde Balsley, who enlisted as a lanky youngster from San Antonio, has a particularly painful souvenir of his service with the Escadrille. Originally with the American Ambulance Service, he transferred to the Aviation Corps of the French Foreign Legion in 1915, and became a member of the Escadrille the following year. One month later, in his first combat, his gun jammed as he attacked a German plane, and he was forced to turn and make for his own lines, with his foe in hot pursuit. Meanwhile, a second enemy craft attacked him from above. He was struck in the hip by an explosive bullet, which made a horrible wound, paralyzing his right leg. His escape from the enemy and subsequent landing in a French wheat field were extraordinary miracles of flying skill.

Doctors thought he'd never live, and he was operated on six times within a year to remove fragments of the bullet. Only the patient, tireless care of his nurse and his indomitable spirit pulled him through, and in 1917, he returned to the United States. Although permanently crippled, he offered his services to the American Army, and held a position for a time as an air official in Washington, earning the rank of Captain. Eventually, he left the Army and married a wealthy woman who owns a beauty shop in San Francisco.

Now unable to work, he has received no compensation—and wants none—for the injury which keeps him idle. And every so often, he must submit to another operation to remove the seem-

ingly innumerable pieces of that cursed bullet.

The sufferings of big, handsome William (Bill) Thaw, one of the Escadrille's founders, were much shorter. Son of a Pittsburgh steel executive, he already was a licensed pilot when he enlisted in the Foreign Legion at the start of the war, and had distinguished himself as the first airman to fly under the Brooklyn Bridge.

The inseparable companion of the late Lieutenant Raoul Lufbery, he had perhaps the broadest experience of any aviator in the World War. He had been in every conceivable aerial situation, including that of being wounded.

Transferred to the American Army with the Escadrille, he became a Lieutenant Colonel before the war was over. Returning to this country, he set up an insurance agency, which, with a small inheritance, enabled him to live in modest comfort. A few years later, he married a widow with three children and settled down to a quiet life.

Then one day, after a severe cold, he developed pneumonia. The Great Thaw, who had escaped death countless times in the air, died within twenty-four hours.

Elliot Cowdin, also one of the original seven members of the Escadrille, met a similarly unspectacular demise.

Son of a New York silk merchant, he began his war service in the American Ambulance Corps as a sleek, athletic chap in his late twenties. Entering the Aviation Service of the Foreign Legion in 1915 and transferring to the Escadrille when it was formed, he spent a hectic year on pursuit duty at the front. In 1916, he was forced out of active service by ill health. Returning to the United States, he became a Major in the American Air Service, in which he acted in an official capacity until the Armistice.

Fortunately, he had a private income, and remaining a bachelor, lived well until 1933, when his cool courage was powerless against the same enemy that got Thaw—pneumonia.

ILLNESS, too, was the final adversary of two other survivors of the Escadrille.

William Dugan, a short, chunky Rochester boy, was working in Central America as an assistant manager of a United Fruit banana plantation when the war broke out. He immediately gave up his job and went to France, where he enlisted in the Foreign Legion. He took part in all the great battles of the Legion, including the horror of mud and shell-fire at Verdun. After great difficulty in getting transferred to aviation, a lucky wound finally sent him to the rear, and when he returned to the front in 1917, it was as a pilot with the Escadrille.

Until the end of the war, he was constantly in active service with the Escadrille, except for a short leave to America to be married. He brought his wife back with him to the front, and continued to fight as gamely as before. Eventually transferred to the American Army, he became a First Lieutenant before the Armistice was signed.

Returning to the banana plantation, he and his wife had a brief few years of happiness until 1924, when he contracted a mysterious tropical disease which necessitated his removal to the United States. A few months later, in hospital at Patchogue, Long Island, he succumbed.

Walter Lovell, a husky young fellow from Concord, Massachusetts, was in the American Ambulance Corps before transferring to the French Air Service in 1916. One of the first pilots who received their training on the rickety Bleriot, he encountered much red tape

before he finally was permitted to join the Escadrille in 1917.

A born leader, not a day passed throughout his ten months at the front but what he headed one or more of the patrols. He was known for his voluntary *sorties* alone far behind the German lines, shooting down enemy planes in victories which could not possibly be confirmed. Transferred to the American Air Service, his executive ability caused him to be withdrawn, much to his disappointment, to American GHQ at Chaumont. The close of the war found him a Major.

For a time, he remained in France, in the exporting business, and married a French girl. Returning to the United States in 1925, he bought a coal yard at Bay Shore, Long Island. A son and two daughters were born, he prospered and was well on the way to retirement. Then, two years ago, he was stricken by a sudden illness and rushed to a hospital. Three months later, he died.

Quite different has been the peacetime life of Bert Hall.

A native of Higginsville, Missouri, this tall, suave soldier of fortune was an early member of the Escadrille. In 1916, after a year at the front, he was granted permission to accompany the French Aviation Mission to Russia. One of his first duties there was to escort the beautiful wife of a Russian general to safety in China. With her, the woman took a fortune in jewels. Hall shortly thereafter obtained leave to return to the United States, to enter, it was reported, the American Air Corps. He was next seen by an old friend in San Francisco, snappily tailored, affluent and gay in spirits. He was still a civilian, although technically an Adjutant in the French Air Corps, at the close of the war.

When civil war broke out in China, Hall, eager as usual for a fight and

sensing adventures, departed enthusiastically for Shanghai. There were few Western-trained aviators in China at the time, and Hall promptly was commissioned "General Chan" by the Nationalist Government.

In addition to making fliers out of Chinese, it was his duty to obtain planes and equipment.

Chinese authorities entrusted him with \$34,000 for a consignment of arms. The arms never arrived. Arrested in Shanghai, where, apparently, he was preparing to sail, he was convicted by a United States consular tribunal and sentenced to two and a half years in McNeil Island Penitentiary off the coast of Washington.

Upon his release, he went again to China and fought against the Japanese, but soon returned to the States.

ANOTHER unfortunate of the Escadrille was Thomas Hewitt, scion of a respectable Westchester family. After the Armistice, Hewitt found a peaceful life dull, and launched upon a Primrose Path which brought him in contact with his former comrades usually only when he needed money. Remaining a bachelor, he lost touch with his relatives and wandered much around the country, until a few years ago, when he was found dead beside a curb in Washington, D. C., victim of acute alcoholism. But for his service in the American Army, he was rewarded with burial in Arlington National Cemetery.

Of the other nineteen American survivors of the Escadrille, most have fared better, and a few have done outstandingly well.

James Norman Hall, who with Charles Nordhoff, has written such best sellers as *Mutiny on the Bounty* and *Hurricane*, was a member of the Escadrille. He won every possible decoration in his spectacular career at the

front before he was taken prisoner a few months prior to the Armistice. Nordhoff, who served with both the French and American Flying Corps, although never a member of the Lafayette Escadrille, was, because of his literary ability, transferred after a short stay at the front to the executive staff of the American service. Hall wound up as a Captain; Nordhoff as a First Lieutenant.

Returning to this country, their struggle for recognition was long and difficult. Only now, living in Tahiti with their families, are they enjoying financial security for the first time.

Frederick Prince, Jr., son of the Boston millionaire, has been one of the fortunate. Brother of the late Norman Prince, who conceived the idea of the Lafayette Escadrille and was fatally wounded in action in 1916, he was the tall, good-looking youngster of the outfit, which he joined a few hours after Norman's death. Briefly at the front, his release from the French service was effected through the influence of his grief-stricken father. Returning to America, he served as a First Lieutenant in the Quartermaster Corps until the Armistice.

Now a wealthy broker, he has been divorced and has remarried, is the father of three sons, lives on a huge estate at Westbury, Long Island, and has a town house in New York and a Winter home in Florida.

Charles Dolan, scion of another old Boston family, also has prospered. A plucky and enthusiastic youth, he fought in many a hotly-contested battle during his stay in the Escadrille, but luck seemed to be against him then. He managed to bring down only a few planes, and never succeeded in getting official confirmation of those. The close of the war found him a First Lieutenant ready to start a new life.

Dolan's rise upon his return to the States was rapid. Today he is president of the Intercontinent Corporation, which has a virtual monopoly on the export of American planes and arms to belligerent countries. Married and the father of a boy, he lives in Forest Hills.

Another who has been successful since his return is Edwin Parsons, who came originally from Springfield, Massachusetts. Famed as the best-dressed member of the Escadrille and a social lion, he was, nevertheless, one of its most daring fighters. Decorated numerous times for a long string of victories, he was a First Lieutenant at the end of his three years of gallant service for France and America. At present, he's a scenario writer in Hollywood.

With the exception of David Peterson and Ralph Doolittle, both of whom were killed here in crashes as, respectively, civilian instructor and regular

Army flier, the remaining survivors of the Escadrille are engaged in a variety of pursuits.

Dudley Hill has been manager of a Cuban sugar plantation since 1930. John Drexel is in the diplomatic service. Henry Jones manages a five-and-ten-cent store in upstate New York. Lawrence Rumsey is a retired Buffalo businessman. Christopher Ford, married for the third time, is an airman in the regular Army, at Honolulu. Harold Willis is a Boston architect.

Kenneth Marr is a California oil operator. Ray Bridgman is a professor of history at New York University. Didier Masson manages a rubber plantation in the West Indies. Edward Hinkle is in business in Detroit. Stephen Bigelow, sportsman and playboy, is traveling. Willis Havilland is West Coast representative for a national distillery firm.

ON A FROSTY MORNING - WATCH YOUR BREATH TRAVEL

BAD BREATH TRAVELS AS FAR

ONIONS
DENTAL DECAY
TOBACCO
LIQUOR
UPSET STOMACH

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SEN-SEN
FOR THE BREATH

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THROAT EASE
VALUABLE TO
SINGERS AND SPEAKERS

THE EDITOR'S COCKPIT

(Continued from page 4)

been carefully selected with the air fiction reader in mind, and to help make our magazine the best one you've yet seen. They're *your* departments, designed for you. And they're *new*. We believe you'll say we've "got something there."

WITH all the stories we read about World War dogfights, it is rather startling to know that at the start of the war, planes were used only for observation and occasional bombings. Not infrequently enemy pilots would meet each other only to fly along together waving friendly greetings to each other.

One day an observer took a rifle up with him and fired it at an enemy plane. That was the beginning. Pilots and observers began taking up arms with them; some used revolvers—one even threw his field glasses at the enemy! Finally came the machine gun. And now it's a cannon!

WE have often been asked: "Why are so many of the newer military ships going in for enclosed cockpits?" There are a number of answers to this question, but most important of all is the effect of air pressure at high speeds. For example, when Lieutenant O. H. Stainforth flew a British Supermarine 406 m. p. h. during a test, he happened to put his hand above the windshield. His glove was ripped off and his hand badly lacerated by the wind!

SPEAKING of new magazines, *AIR ADVENTURES* has a twin sister, *SOUTH SEA STORIES*, the first issue of which will be on sale October 15. If you like the fiction and features of this magazine, then don't fail to get the special first issue of *SOUTH SEA STORIES*. It's a modern, streamlined twin to *AIR ADVENTURES*, and it has a collection of stories that have been a whole year in the selecting, so we know they're good! Take for instance *South Sea Dictator*, by S. Gordon Gurwit. There's a story that will keep you on the edge of your chair as you read it. And you'll read a story by David Wright O'Brien, who authors *Wings Above Warsaw* in the book you're reading right now. It's called *Even The Worm Turns*. And there's an article about *Blackbeard*,

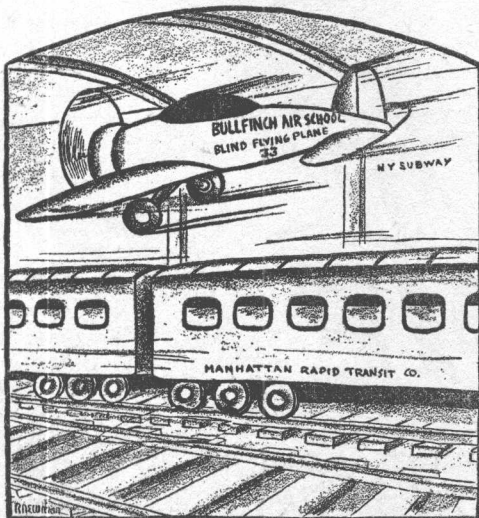
the most famous pirate, and a marvelous back cover painting of his ship, *Queen Anne's Revenge*.

Recently your editor had the good fortune to get an advance glimpse of *POPULAR AVIATION*, and here's an article *no American should miss!* It's *Behind The Air Front* by Drew Pearson and Robert S. Allen. Get that November issue now!

OF odd timeliness in this issue is the article "Forgotten Heroes." This article tells what has happened to those romantic, almost legendary heroes of the war of 1914-18 who became the basis for all air-war fiction by their daring exploits in planes built of wood, wire, and cloth. They went out to battle, not as present day war pilots do, in a strict and tactical formation, but in a loose flight that almost always wound up in a dogfight. In this new war there is no such thing as the dogfight.

It only happens as the last result of an air battle.

However, the fate of those heroes of 21 years ago proved extremely interesting to your editor and we feel certain you'll be as fascinated as we were. We only wonder, what type of air hero will emerge from the war of 1939?



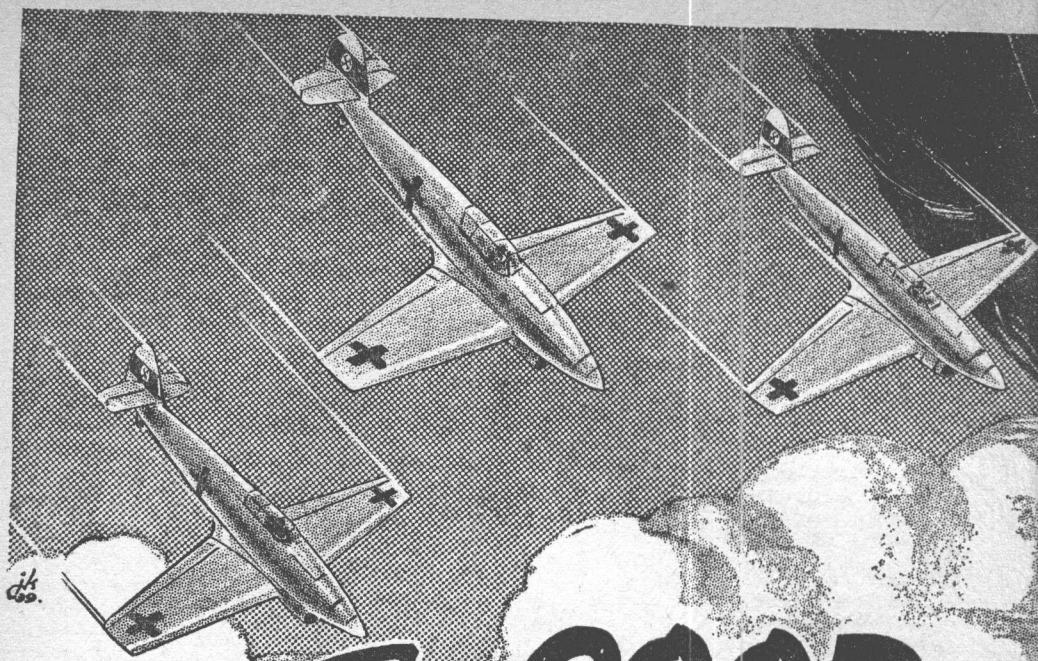
"Calling Bullfinch Air School! Elevation minus forty feet. What do I do now?"

OUR memory seems to have on file a few items about so-called death rays; that is, "death" to planes, supposed to have been on tap for this war. If they do exist, when are they going to be used? Ignition stopping rays effective to 20,000 feet had

been "invented" according to news releases. We wonder now that they haven't showed up, whether the inventiveness wasn't in the news releases? Or is this the real reason for so many air raids by squadrons of both Allies and Nazis turning back without attacking? Personally, your editors scoff at the "ignition stopping" ray.

WHILE we write this, Nazi planes are bombing Warsaw and a dozen other Polish cities. Which seems to make our back cover very timely. If you haven't turned to it, right now might be a good time to glance at this new feature in *Air Magazines*. *AIR ADVENTURES* is proud to present this full color scene on its back cover, and we will continue this policy with future issues.

AND with that we'll take off until next issue, to gather together a new selection of air yarns to provide you with entertainment. Until then, keep your goggles clean.—*Rap*.



The GOOD DIE FIRST

Bud Hacken thought he could lick the whole Nazi air fleet. But when a brave man died to prove how wrong he was, he had to make up for his fatal mistake.

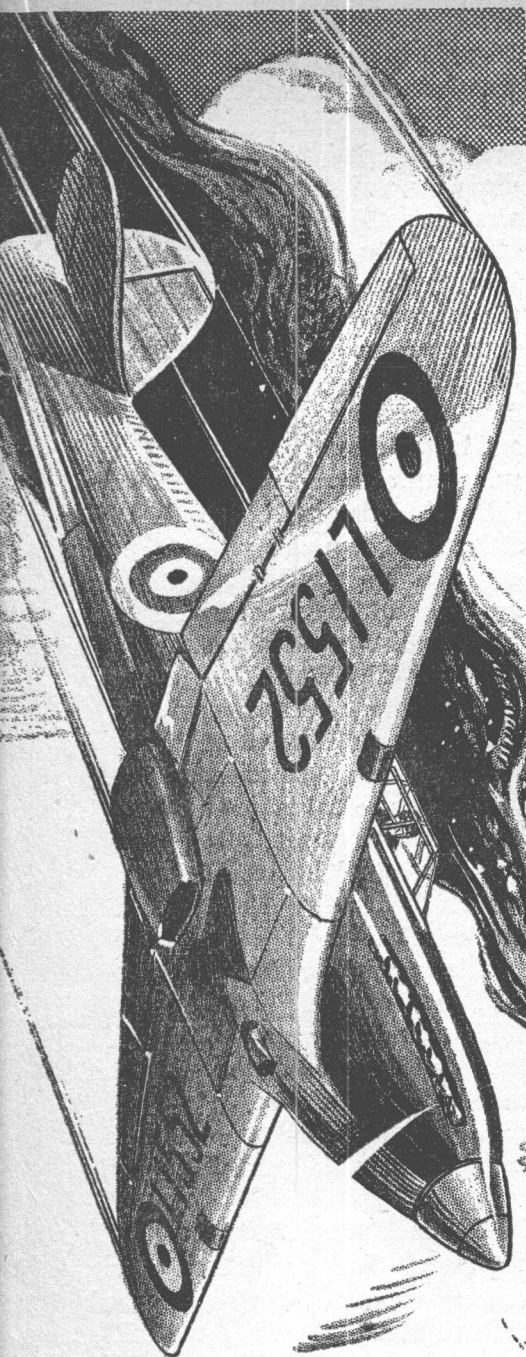
IT'S murder! Just plain murder!" Major Hank Lowder's tight face was a ragged scar in the half-light of the doghouse as the exclamation burst from his lips. His bushy brows seemed to droop over the icy slits of his restless eyes. His bristly blond hair was parted by a ghastly green groove where a machine gun slug had plowed its way through his scalp. The burn scars on his face, received when he had

crashed with his engine on fire, glowed red even in the half-light.

He wasn't a lovely sight, and he knew it, but he didn't give a damn. Each time they'd patched him up, they'd said the scars would heal. Perhaps they would, if he lived long enough. But there were other kinds of scars inside—scars that would never heal.

The job of playing God over the

By LIEUT. FRANK KENT



destinies of mere striplings was more than they had a right to ask of him. The toughest sector on the front—Nazi squadrons like that of Gustaf Fahnk to reckon with. . . .

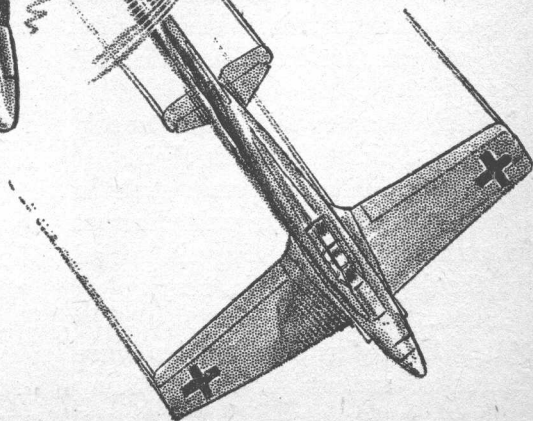
Lowder's big teeth ground together with a rasping sound, and his lean fist kept striking the table sharply. With a mechanical movement of his long arm, he put the cognac bottle to his lips and drained it. Then he hurled the empty bottle against the far wall where it exploded in a shower of glass.

The damned job was getting him! Maybe Wing wasn't to blame. It was the system that was wrong. Why did they always send up the best men to be killed off first in a war? Why didn't they rake the country for cripples, lunatics, sub-normals and criminals, and send them off first to be slaughtered and maimed and ruined?

Lowder dreaded going out to meet the replacements due today. If he was honest, he'd tell them:

"You haven't got a chance!

You can remember your maneuvers—you can point with pride to your records with the photo guns. You can pull the hair on your chest, if you have any, and make your big



Flame burst from Baron Lieber's ship; then like avenging eagles the Messerschmitts zoomed down on young Hacken.

talk, but you're going to die. And the better you are, the quicker you go, because you'll have the nerve to hound Gustaf and his flyers, and they'll kill you. Maybe not today—or tomorrow—but they'll kill you!"

That's what he'd tell them if he was honest. Instead he'd have to go out there and vomit up a lot of trash about confidence, nerve, formation tactics and victory!

He rolled a fog, took a long pull, stabbed it out against his shabby desk as Lieutenant Reeves slammed in the door. Reeves boasted a wooden leg, and a shriveled arm, the result of a fierce attack against a bombing squadron the first day of the war. He had been one of the first contingent of the 92nd, and between him and Major Lowder existed that bond which strong men create among themselves.

Reeves had earned a discharge with glory, but he had refused to go, and Lowder had gotten him assigned to the 92nd on special duty.

Now Reeves grinned, as though he was a little ashamed of what he was doing. The thick throat that supported his bullet head seemed to gulp over the words.

"The new batch of goslings is ready for your inspection, Major. Fine lookin' bunch of lads—for the boy scouts!" Then, noticing the haggard look on Lowder's face, added quickly, "You want I should feed 'em that old hooley?"

"I'll see them myself," Lowder said warily, and kicked back his chair.

He moved like a gaunt skeleton worked with wires as he walked across the tarmac. Reeves limped behind him, having difficulty in keeping up with him.

The four gleaming rookies were pictures of sartorial splendor. Shiny leather—neat serge—polished brass.

With his worn, unpolished boots, with his shirt thrown open at the throat and his sleeves rolled up, Lowder made a grim contrast to the eager kids.

For a long minute he stood on spraddled legs and stared at them. There was something familiar about the blond, gawky kid on the left of the line. Lowder turned his eyes away from them, and made his talk.

"You've no doubt got notions about this business. You've probably heard fantastic stories about honor and glory and high purpose. Forget them! You're going out of here in suicide squadrons riding lightning itself. That's how we strike in modern war. Remember this, dogfights are absolutely out. If you keep out of the Germans' way, and don't break formation you'll get along all right. That's all."

Lowder's big mouth firmed up at the evident disappointment in their eyes, all except the kid on the end. Perhaps they had expected more of him. Well, he didn't have more to give.

"That's all," he repeated. "What are your names?" He glared at the first man in line.

"Lieutenant Watkins!"

"You're excused," Lowder growled.

He excused Burns and Piper in turn, then glanced again at the blond youth on the end of the line.

"Lieutenant Hacken — Bud Hacken," the blond kid said flatly.

LOWDER tensed. It came to him then. For one fierce moment he could see a burning plane, a grinning redhead in its pit. He could still see that redhead, who had been Phil Hacken, riding that burning Hurricane into hell with a farewell wave of his spade-like hand. It all seemed like a century ago, but in war a week is a year. Phil had seen a chance to get Fahnk on his own and had broken formation. Three

Nazi's had dived in perfect tactic formation and riddled him.

"Any relation to Phil Hacken?" Lowder asked casually.

"Brother. That's why I've begged my way into this outfit."

Lowder liked the firm, definite sound of the lad. "Phil Hacken had a great record," Lowder said shortly, "you'll do well if you equal it."

The kid's face hardened. The color seemed to recede a little, setting the freckles out distinctly. "I don't give a damn about a record, sir," the kid said softly. "I've come to kill Gustaf Fahnk!"

Lowder cursed—a string of blue phrases that struck fire as they spat past his teeth. "Sure, you want to get Gustaf Fahnk. So do I and so do a dozen others I could name. Phil wanted to get him, too, and that's why Phil is pushing poppies out of that slop beyond the Siegfried Line. But if you try to do what your brother did, I'll ground you. Get that? Now get the hell out of here!"

The kid saluted stiffly, and Lowder was troubled by the icy stare in the youngster's eyes. He watched the blond as he legged stiffly away. The kid had Phil's eyes and broad shoulders. Great guy, Phil. If the kid came anywhere near being as good, it meant trouble for a few Nazis.

Lowder shrugged his beefy shoulders and trudged back toward the doghouse. He slammed in, dug a full bottle of cognac from his desk. He had four more human lives to lead out where death could snatch them with greedy hands.

IT was as he was gulping the second drink that he heard the roar of a plane. He jerked a look at the window. A Hurricane was weaving a swift veil of dust as it spun down the runway!

Lowder cursed. He leaped for the

door, raced to the line where two startled mechs were gesticulating wildly. Lowder spun the first mech around.

"Who's taking off on solitary?" he cried.

"Damme sir," the man gasped, "one of them crazy rookies hooked that crate off the test line!"

"Who was it?"

"The blond hick—Hacken, I think his name is."

"Is that ship fit to fly?" Lowder snapped.

"It'll fly all right," the mech agreed, "but the guns have only about twenty rounds of ammo in them."

Lowder cursed. His first contact with the kid had aroused his affection. For Phil Hacken's sake he had to see that Bud didn't throw his life away for nothing more than a noble gesture. It was entirely possible the lad might run into Gustaf Fahnk's staffel, and if he dared attack them . . .

"Roll out my ship!" Lowder barked hotly.

He dragged on teddies and goggles and helmet as the mech's got the motor roaring. Then he legged into the pit, closed the top and jerked a look at his tank gauges. He jabbed the throttle. Thunder rolled across the field and crashed back from the doghouse. He didn't bother with the chocks, but rocked off—lunged forward—bit down the field and jerked into the air!

By the time he had cleared the ground haze, the kid's ship was a speck in the sky toward Naziland. Grimly, Lowder nursed the straining engine to cut down that distance.

He was within a half mile when it happened. He saw five Messerschmitts slam down, metal fuselages flashing in the sun. For one awful minute the kid was blotted out. Then Lowder caught sight of him fighting his

wobbling Hawker Hurricane.

By some stroke of Fate, he'd survived that first onslaught. Lowder prayed a little, squeezed the wheel in his eagerness to get in and help the youngster. He was remembering Phil Hacken. Phil had been a special friend of his. Now this fool kid brother . . .

The next instant Lowder could tell why the kid had been spared. The Messerschmitts zoomed back. Gustaf Fahnk's ship detached itself from the others. He'd been unable to resist the invitation to a dogfight. Those others drew off, to watch this one-sided duel the results of which were already a certainty.

Lowder spoiled their plans. He smashed through ships with his own Hurricane, jabbed a stream of lead at Fahnk before the German could fire a burst. Fahnk jerked a startled look across and rolled out.

Lowder found himself in a spot of horror. Converging streams of tracers webbed him in! He felt his Hurricane shudder as the hot lead knifed through it. Little holes appeared in his wings. Vicious hammers mangled his dash. Curious fingers plucked at his clothing!

Desperately, Lowder jerked the wheel against his guts and nosed up in a half loop. He rolled out at the top. Desperately he signaled the kid to stick in the middle of the Nazis. Lowder dived in among the Messerschmitts and flattened. They couldn't fire at him now, without hitting one another.

It was an old trick of the war of 1914-18. But the kid wasn't looking for tricks. Flaunting every precaution, he broke out of the middle of the weird fight. There was no sense in the maneuver and its very foolishness saved his life. And it did more than that.

So unexpected was Bud Hacken's crazy move that it caught even the German's flatfooted. The kid, in a

plane just off the test line, with but ten rounds remaining, slammed onto Gustaf Fahnk's tail!

Lowder glared, goggle-eyed. It was unbelievable. Even as he watched, he saw the tracers lick out like threads of lace and caress the Messerschmitt. He saw Gustaf Fahnk's head snap forward, blood spurting from a hole near the neck!

Lowder screamed to assure himself that he was awake. It was unbelievable, it was a fluke, but it was true. The kid had done what he'd set out to do! He'd killed the great squadron leader, Fahnk, in a dogfight!

THE rest of the Messerschmitts seemed to forget the two enemy ships. They were staring with unbelieving eyes at their leader spiraling down in a winged coffin.

Lowder saw his chance to break away. He hunched down, batted the trips and bored a hole through the German staffel. Then he was free, cursing Bud Hacken who was loath to leave the scene of his triumph.

Lowder got the kid turned around, and they screamed for home, with the Nazis too dazed to follow them.

Lowder was boiling inside. The kid's victory was pure luck, nothing more. One time in a thousand a man might hit his adversary in the head from a plane traveling at two hundred and fifty miles an hour. Even then, the man would have had to have some experience and practice under actual fighting conditions.

Lowder knew he could never convince the kid that his hit was a fluke. Before he could make Bud Hacken realize the truth, the kid would go out and get himself killed trying to duplicate the feat.

Lowder slammed his crate down on the tarmac of the 92nd, rolled into the

line and legged down. He flipped his goggles off, turned to meet the kid who was rolling up in his riddled Hurricane.

The kid climbed down, a cocksure grin on his face. Now was the time to save the kid's life, Lowder told himself.

"Hacken," he snapped, "you disobeyed orders. Not only that, you stole a ship from the test line, that wasn't okayed for duty."

"But I killed Gustaf Fahnk, major," the kid said swiftly, proudly.

"It wouldn't be any use to tell you that Fate killed Fahnk. It wouldn't help any to show you that you played into a wild piece of luck. It wouldn't stop you to explain that your very damned foolishness turned the trick. For what you did, I'm breaking you down so low that a greasehog'll look like an admiral to you!"

The color drained from Bud Hacken's face. He said slowly, with taunt driving the words, "Jealous, major?"

The tone of the words ignited a white flame of anger within Lowder's skeleton form. His fist drove up from the knee. There was the smack of bone against flesh and the kid was lifted from the ground, hurled back under the wheels of Lowder's ship.

LOWDER didn't wait for him to get up. He spun on his heel and started for his doghouse. Reeves was hobbling to catch up with him.

"Is it true, Lowder?" Reeves asked, wheezing for air. "Did the kid down Fahnk?"

Lowder nodded. "Yes. Plugged him dead center in the head on a fluke play."

"Jees!" Reeves gasped. A strange, longing light came to the crippled man's eyes. Reeves, a useless husk of what had been a brave man, still longed for a chance at the Nazis. His leg was gone,

his arm was shriveled, but his heart was up in the sky.

"You know what it means?" Lowder lashed out.

"That he'll be good and fly formation now that his brother's death has been avenged," Reeves hazarded.

"Like hell he will. He'll think he's a little tin god, and he'll be a likely victim for the lousiest formation flyer in the Nazi air force!"

"So what?"

"So we've got to prevent it. We've got to take him down a peg or two, and I'm holding him out of patrols. I'll have to report the victory, of course."

Reeves snorted knowingly. "You kind of like the kid, don't you, major?"

Lowder didn't answer at once. He was looking far off, seeing strange things that constricted his lean throat.

"Sure I like him," he said dully. "If I didn't would I be taking on like this? Haven't I sent too many men to their deaths to lose interest in how more might die? The kid's like Hacken—remember him—how he used to cut up—a hell-cat he was . . ."

"Sure I remember him—along with the others," Reeves said softly, and he might have added, "along with my leg and my arm, and the fierce call of battle!" Without knowing it, Reeves' whole body seemed to cry out for action—it was in his eyes, glowing like banked fire—it was in his speech underscoring the words he spoke.

"All right, then," Lowder said swiftly, "we've got to take the kid down a peg until he learns what it's all about."

He called Wing and reported the death of Gustaf Fahnk. Lowder believed that would end that affair. After all there were men as good as Fahnk still flying just over the line. Von Mehcken and Baron Lieber.

But Lowder's report struck fire in

the imagination of a young Wing Colonel, and Fahnk's death was seized upon as an occasion to bolster up the morale of the entire air force. Lowder was shocked to get a phone call from Wing that same day.

"Lieutenant Hacken has been cited for a decoration," the Wing Colonel explained exuberantly. "He's being given special leave to go to Paris for the presentation, and you are instructed to give him command of a squadron upon his return."

The substance of that message was in such contrast to the punishment Lowder had prescribed for the kid, that he at first could hardly find words to frame his thoughts.

"Medal," he spluttered, "medal—citation! Fireballs and damnation, the young hellion needs a whappin' on the seat of his pants!"

"We'll not argue that point," the colonel snapped. "Wing has good reason for publicizing young Hacken's victory. Have him report to G. H. Q. tomorrow!"

LOWDER sat staring at the dead phone. Then his grim lips spat out a string of sizzling oaths. That was war for you. A squadron might pile up a score of earned victories and never be mentioned in dispatches. Along comes a kid who can't obey orders, and he gets sugarballs and champagne for making a pot shot that couldn't be repeated in a hundred years!

Lowder slammed the phone down, and fished out his private stock. He gulped half a bottle before he stopped for air. The liquor burned in his stomach, raced through his blood like fire, but even that wasn't much good any more. He was getting sick of the whole damned thing. Reeves, half a man, forgotten. The kid, no man at all . . . It was sickening.

Lowder drank again. His thoughts became a little hazy. Even the sound of planes taking off didn't disturb him. He had to give the kid the message from Wing, and he didn't like the job. Not that he was afraid of anything, or anybody, but he knew what it would mean for the kid—it would be the kid's death warrant.

A sudden pounding on the door brought Lowder to his feet. "Come in!" he growled thickly.

A greasy mech slammed in, gasping for air. "Lieutenant Hacken, sir—he took off in your plane!"

Lowder tensed. "My plane? Was it serviced?"

"No. We hadn't got around to it yet. He swore he was going to show you that his victory wasn't a fluke—he was going to show you that he could do it again."

"Why didn't you stop him?" Lowder looked as though he would leap across the floor and tear the mech apart.

"Couldn't, sir. He walked the ship off, and blew out on a cold engine. That ain't all, sir."

"What else is there?" Lowder's voice was a tight snarl.

"Reeves went after to turn him back—went out in the crate the kid used this morning. There's not more than three slugs left in those belts, sir. If he turns the kid, well and good. If he don't . . ."

Lowder started for the door like a tightly wound spring loosed suddenly. "Roll me out a ship, dammit!" he cried, "what are you standin' there for?"

Without helmet or goggles, without teddies or gloves, Lowder plunged into the pit of the Hurricane they rolled out for him. He jiggled the throttle to get the Merlin hitting. Raw gasoline flared red from the stacks. He waved the

chocks out, and took down the field with the mighty engine still missing.

Up—up—up he spun in a tight spiral. Then he shot out toward the east. Behind him, the sun hung low in the sky like a clot of blood. It gave a red tingle to the sky, as though the crimson blood of the ravished earth below had stained the air.

Lowder's propsheen was a rose-colored halo, and through that halo, he could see two shining specks far ahead of him. One of those specks was a brainless kid the devil had tricked into swift danger—the other was a man whose heart was bigger than his body, whose soul was stronger than his limbs.

Lowder fought the Merlin to the last ounce of power it could supply. He began to draw closer—closer to those shining specks. They crossed the Maginot line—went on and on over the Siegfried Wall. Then Lowder half rose from his seat.

Six drab, gray Messerschmitts slid off a cloudbank and nosed after the two ships ahead. A white Messerschmitt led them. For a moment, Lowder's apprehension grew less.

That was Baron Lieber taking the German rookies out for an airing. It was the Baron's habit to take the raw kids out for a taste of war flying, every evening at this time, as there was little chance of encountering the enemy.

But tonight, a fool, and a cripple, proved too enticing a bait for the raw Nazi squadron to overlook. Before Lowder could get close enough to give a hand, the six ships yammered down. The swift attack drove Hacken and Reeves lower. The whole fight went down a thousand feet.

Lowder was above them when he reached the scene. He could see clearly everything that was happening. He saw the kid jerk the Hurricane around,

make a wild play for Baron Lieber in the white Messerschmitt!

The kid seemed to forget the fact that there were five other ships all too anxious to smother him with hot lead. He was thinking of his easy victory over Fahnk, perhaps. Without giving a thought the kid lunged at Baron Lieber!

Lowder knew that was a fatal mistake. He pounded his dash and yelled, "For the sake of God, kid . . ."

He didn't finish the warning. He saw three of the rookies in perfect formation slam across to catch the kid offguard. Lowder spilled his Hurricane to save the lad, but he knew he would be too late. Before he could pull out, and line his guns, it would all be over.

Down he went, the wind shrieking like dervishes past the fuselage. Down—down . . . Lowder tensed, and felt his throat constrict. The Nazis had the kid dead to rights!

Lowder could see Hacken jerk and stiffen in the pit as the hot lead knifed around him. The Nieuport shuddered and bucked like a wounded animal. Hacken was making a futile, wild attempt to pump his guns at Baron Lieber.

It was no go. Nothing could live in the storm of death that lashed around the kid's hunched head. Lowder could see the kid's white face turned back—could see the dismay and terror written there at the sight of the Nazi squadron on his tail.

A thunderbolt broke up the play as the Hurricane was falling apart. Lowder saw Reeves, miraculously flying his ship with the cunning of a mind well-trained for the task, hurl the Hurricane at the Nazi trio. The guns spat a short burst, not even enough to warm the chambers, and then they stopped!

Lowder cursed. The fates had marked the kid for the Nazi stew.

Nothing could save him now. Lowder tried desperately to twist his own ship out of the dive into a half roll that would skid him out between the Nazi formation, but he couldn't make it.

Yet something did save young Hacken. That bright thing called sacrifice, glowed for a moment like a white fire. Reeves, a human derelict of a ghastly war, wrote his own citation across the sky with fingers of blood. His guns empty, he jerked his ship around with force enough to strip the wings. Then, without hesitation, he rammed that ship in front of the Nazi who was blasting Hacken!

Lowder felt the shock as the two ships came together. For a moment the Messerschmitt and the Hurricane were one writhing mass of metal! They tore apart, with Reeves still fighting for control of his ship. The rest of the Nazi squadron zoomed frantically away from danger.

All that had happened almost within the blinking of an eye. Honor and glory and sacrifice had been born in the space of time it took Lowder to complete his dive. As he pulled out, he saw the Nazis, out of formation now charge at Reeves in a snarling mass, angered that the crippled pilot had prevented a kill.

The Major saw Hacken, his face a white mask framed in blood, whanging his battered ship around to help the man who had thrown away his life to save him. Ramming the Hurricane through the pack of Messerschmitt buzzards, Hacken emptied his guns into the white Nazi.

Flame burst like a rose from Baron Lieber's ship. For a moment the Baron's sharp face was visible, white—terrified! Then smoke hid it from view and the doomed ship followed after Reeves who was moaning down in a flat spit that could end only in disaster!

Things became blurred to Lowder. He saw Hacken going down, too. One of the remaining four Messerschmitts was following Hacken like a vulture. Lowder screwed his Hurricane upon that ship, to stop it. He stabbed the trips and held them down like an amateur so anxious he was to save the kid.

At that moment of screaming hell, the world seemed to explode in Lowder's grim face. Three Nazis were pouring hot lead at him. The snarling slugs plowed viciously through his staggering ship. He felt the Merlin buck—die—buck again!

At the same instant a hot iron seemed to knife through his scalp just above his eyes. He could feel the warm blood oozing down his face and he shook his head fiercely to throw it off. He'd been hit, but it didn't matter. What difference did one more scar make in a face like his?

He tried to see Hacken, but blood stopped his eyes and his bony hand dug them clear. Then he smelled raw gas. He could see the stream of precious petrol pouring from the bullet hole in the tanks.

The Merlin had caught, and was droning again. Hacken was out of sight. Lowder knew that the only thing he could do was head for home as fast as he could. He did just that. He whanged the riddled Hurricane down for the runway of the 92nd with such vicious force that the landing wheels almost collapsed.

AT the line, Lowder legged down. He looked like a fearsome ghost in the half-light of dusk. Tears mingled with blood frothed down his lined, scarred face. The mechs gaped at him in silent awe as he swung around and legged fiercely for his office.

The major threw his tired body into the rickety chair, and reached for his

bottle. The liquor almost gagged him, then he got it down and his nerves loosened a little. For ten full minutes he sat staring at the wall.

He was thinking of that message from Wing—citation—trip to Paris—command of a squadron! He had a wild impulse to laugh. It had ended like he had said it would. The dam-fool kid had got himself killed by a Nazi weanling, and he'd taken Reeves with him!

What could he tell Wing? How could he explain . . .

Lowder's thoughts were snuffed out by the sound of a motor blipping in for a landing. He tried to think who it might be. The wing colonel, maybe, coming to confirm his message in person.

Lowder gulped another drink. He was in no humor to kowtow to brass hats. He was puzzled by the shuffle of feet across the porch of his office. The door flung in, and a muddy, disheveled figure staggered into the room, carrying a burden upon his back.

Lowder leaped up, his throat constricted. Fierce, stabbing sobs broke across that still space. The man carrying the burden was the kid, Hacken. The burden was the lifeless form of Lieutenant Reeves!

Lowder couldn't speak. Hacken's raw, ghastly sobbing turned into ragged words. "There he is—what's left of him! Go on—curse me—damn me for the fool I am!" the kid screamed.

Lowder got around the desk some-

way, he didn't know just how. Damn his eyes, he couldn't see very well. He helped put Reeve's body on the couch in the corner. Then he swung on the kid.

"How did you do this—why?"

"I owed it to him," the kid regained his composure in some measure. "I thought I was the Angel Gabriel, and was going out to lick Hitler's air force. Reeves sacrificed his life to save me—me, a worthless idiot! I followed him down—killed a Nazi who tried to take us. Then I got my plane off again and here we are."

Lowder felt his anger melt away. He looked at the kid with new respect. Here was something that did deserve a medal. How the lad had ever come back alive in that crippled ship was almost a miracle. Lowder spoke softly, as though afraid lest he disturb the peaceful countenance of Reeves, whose lips were curved in a satisfied smile.

"Never mind about Reeves, kid. He couldn't have picked a better way to ride out." He went on, and told Hacken of the message from Wing. "After what you've just done, I think you should accept the decoration," he finished evenly.

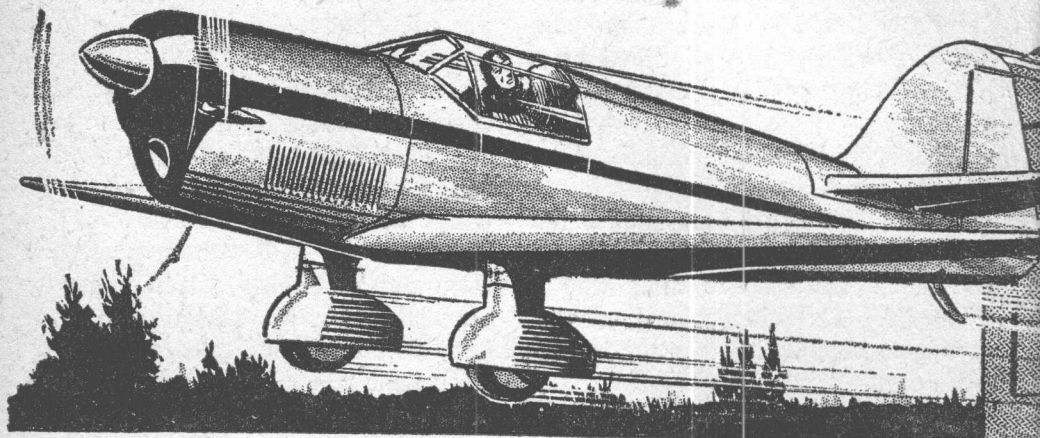
Hacken quit biting his lip. His blond head went back, and his chest arched out.

"Yes," he said calmly, "I'll go to Paris. I'll let the whole damned world know that I'm accepting that decoration in the name of Lieutenant Bill Reeves, who couldn't be present because the good die first!"

**Watch For the Next Issue of
AIR ADVENTURES**

☆ **Out December 15th** ☆

DENNIS CARRADINE was stranded in Poland when the Nazis struck. But he didn't know he was the mighty factor that meant the difference between war and peace for Britain and Germany.



Wings Above

By David Wright O'Brien

* * * *From The London Times, September 1, "Germany has opened attack on Poland. Warsaw and all Polish cities await tonight's inevitable Air Raids. . . . Among prominent Londoners stranded in Warsaw is Dennis Carradine, noted sportsman aviator and son of Sir Francis Carradine, well known Parliamentary leader."*

A RAMSHACKLE taxicab jounced along the road leading to the Warsaw Airport.

A blond, solid young man, the lone occupant of the cab, leaned forward in his seat, placing his mouth close to the ear of the driver.

"I say," said the passenger, "how

far is it to the Warsaw airport now?"

The cabby, an old fellow with a walrus moustache, spoke without turning his head. "Not far. We are almost there. A few minutes, perhaps."

Dennis Carradine didn't bother to answer. He leaned back against his seat, glancing swiftly at the luminous dials of his watch. It was almost midnight. The expected air raid was less than an hour off. Impatiently, he fished into the side pocket of his tweeds and drew out a cigarette case. He extracted a gold tipped cigarette and lighted it. As the flame glowed momentarily in the darkness, the cabby turned swiftly to issue a warning glance at his passenger.

Dennis Carradine smiled reassuringly



WARSAW

and the cabby once more turned his concentration back to the road. "Nerves," thought Dennis, "I've never seen a city so on edge before."

Dennis felt for the black leather portfolio at his side. It was still there, reminding him of his father, of the mission he was to perform for him. Dennis remembered the anxious white face of the consulate orderly when he had picked up the portfolio at the British Legation. Every one seemed worried over this new bluff. It was amusing. He smiled again, this time to himself, as he remembered his father's cable. The old boy had been quite insistent that he return immediately to London—by train and ship—and with the portfolio.

The taxicab lurched sharply to the right, traveled a few more yards, and

came to an abrupt stop. The cabby turned half-way around in his seat, looking silently at Dennis.

"We're at the airport?" Dennis inquired.

The cabby nodded. Dennis sensed that the old fellow was more than anxious to be off. He picked up the leather portfolio from the seat and climbed out of the taxi. He pressed several banknotes into the driver's hand. Before he had time to turn, the car whipped off into the night. Dennis grinned, juggling the portfolio lightly in his huge right hand. He wondered, with merely a vague curiosity, what it contained.

Dennis stood there in the darkness, feeling the silence tingling in his eardrums, trying to accustom his eyes to his surroundings. After a moment he

recognized the blurred outlines of the hangars, the towering shadows of the Airport Office. Gravel crunched under his feet as he started off in the latter direction.

"Travel by train and ship!" Dennis grinned once more at his father's command. Fancy Dennis Carradine returning to London by any other route than the skyways. England's finest sportsman flyer clinging to the ground. It was laughable.

Suddenly, without warning, Dennis heard a sibilant hissing command in Polish. A rifle muzzle jarred uncomfortably into the small of his back. A second command followed. Dennis recognized it as, "Keep walking!" Without protest he obeyed. He wanted to get to the offices anyway.

A moment later they were before the large door marking the main entrance to the Airport Office. Then, for the first time, his sentry stepped in view, a stocky fellow, clad in the uniform of the Polish infantry.

He held Dennis by the arm, knocking on the door with the butt end of his rifle. A moment later they stood blinking at a spacious, brightly lighted room. Men in uniform stepped swiftly over to Dennis. The sentry left his side and stepped back out into the blackness, returning to post.

A small, dapper, little man with a waxed moustache, apparently the commanding officer of the group, was standing before him, speaking.

"Please explain what you are doing here." His tone was crisp, authoritative, and as his sharp eyes seemed to sweep in every detail of his appearance, Dennis ceased to wonder how the fellow guessed he was English.

"I am Dennis Carradine," Dennis began. "Three days ago I arrived here in Warsaw by plane, my own ship." He paused, slightly surprised that his

name caused no reaction. "I came from London by way of Basel. I must return tonight. You'll find my passports, visas, in order and—" The Polish officer cut him off sharply.

"No planes take off from Warsaw tonight. Didn't you see the posted ordinance?"

Dennis smiled tolerantly. "Of course, naturally. However, this is rather urgent. I shall be all right, never fear. Incidentally, my name is er, ah, Carradine, Dennis Carradine." He felt certain that the commanding officer had not recognized his name the first time. Repetition might awaken the fellow.

The dapper officer was polite but firm. "Yes, Mr. Carradine, I have heard of you. Nevertheless, no one leaves the airport tonight. There are trains—"

"But—"

"As I was saying," the officer continued, "there are trains out of Warsaw, all very capable of evacuating non-combatants. I am sorry. We have our orders."

He turned and spoke rapidly in Polish to the other men in the group. They looked at Dennis and nodded, then broke up and returned to their stations by the shuttered windows. "For the present," the officer concluded, "I would advise you to make yourself as comfortable as possible during the ensuing hours. We have a rather trying wait ahead of us." He turned and strode away.

More annoyed than surprised, Dennis slumped his well-knit frame into a nearby bench. His gaze swept across the huge waiting room, now transformed into a military barracks. He noticed that soldiers sat at radio control boxes in front of the four large entrances. Head-phones were plugged into the boxes, and Dennis guessed that they must be amplifying connectors,

used to pick up the sound of approaching aircraft.

The majority of the men in the room wore the insignia of the Polish Air Force on their uniforms. Dennis hadn't expected the airport to be transferred into a military base so rapidly. Germany's offensive had hardly begun. Dennis felt suddenly impatient that this mock warfare should delay him. All this rigid regimentation over something that would end in a day or so was annoying. Damned stupid.

Whether they liked it or not he was going to leave tonight, by plane. He compared the gigantic clock on the wall with his wrist watch. The expected raid was due within thirty minutes. He thought of his chunky, powerful racing ship waiting outside in the first hangar. . . .

SIR FRANCIS CARRADINE ran a square hand through his graying hair and gazed anxiously at his watch. Parliament buzzed with many voices. The Dictator had not yet answered the ultimatum. Sir Francis thought of the portfolio carried by his son. It was a chance. It still might save the situation. Dennis would be surprised when the German officials took the portfolio from him, but it was better that he didn't know. It would make the officials even more certain that the information was authentic. If the portfolio were carried to the Dictator—then the diplomatic bluff might avert war. Sir Francis looked up. The Prime Minister had entered. . . .

DENNIS glanced sharply at the far corner of the room. An excited soldier at one of the sound boxes was gesticulating wildly to the commanding officer. In a moment, a knot of soldiers collected around the amplifying box. Something

was up. Dennis sprang to his feet, as though interested in the proceedings. But he casually, yet carefully, backed to a tiny door leading to an unoccupied baggage room. No one noticed as he stepped inside, closing the door softly behind him. In a moment he found the window. In another he opened it, dropped softly to the ground outside.

Crouching there for a heart-beat, Dennis allowed his eyes to focus in the darkness, watching to see if he had been noticed by a sentry. Dennis grinned. This would make good telling in London. He began to move deliberately through the inky night. Chances were that sentries were posted around the field, but Dennis doubted that any would be stationed before the hangars. He noted, with satisfaction, that the doors to the hangars were open. Dennis slipped inside.

Less than thirty feet from where he stood, he could see the shadowy outlines of his stocky, low-winged monoplane. He breathed a sigh of relief. For a moment Dennis was afraid that they might have moved his ship. He went over to it soundlessly.

Swiftly, Dennis checked it over. Everything was in order. Placing the portfolio in the seat of the leather lined cockpit, he stepped back outside the hangar for one last look around the field. It wouldn't do to be surprised at this point. There was still no sign of a sentry patrol. Dennis returned to his plane, and a few minutes later was slowly rolling it out of the hangar, onto the concrete runway. In another few moments Warsaw Airport was reverberating with the snarling of his high-powered motor.

The startled Polish sentries arrived on the field just in time to see an English monoplane racing down the runway. With mouths agape they watched it climb skyward, then they rushed to

spread the news to their officers.

Snug and serene in his comfortable enclosed cockpit, Dennis Carradine watched the earth fade away beneath him. He was grinning smugly. Try to keep Carradine on the ground, would they? He chuckled again at this and threw his craft into a sharp bank. It would be best to circle the field once and check his instrument panel.

He was startled by the first explosion.

It burst about a hundred yards above and to the right of his wing-tip, rocking the ship violently. Dennis ruddered hard, forcing the bank sharper in an effort to get a glimpse of the field below.

Then a second shell burst, a little closer this time. Cursing, Dennis whipped the nose of the ship up into a steep climb. Damn them. What were they popping those anti-aircraft guns at him for? Then, even above the roar of his motor, the sound of sirens wailing in the streets of Warsaw came to his ears.

"Good God," thought Dennis, "do they take me for an invader?" Almost before he breathed the question, an answer was forming itself in his uneasy mind. There was a general order that no Polish planes take to the air in the vicinity of Warsaw. Such being the case, anti-aircraft gunners would naturally presume that any ship in the sky would be an enemy, especially since an air raid was expected.

Dennis made certain that his instrument panel was working. Checking the gauges with a swiftness born of something akin to fear, he set a course in the general direction of Basel and turned the nose of the plane in that direction. It would be wise not to linger above Warsaw. Playing Hide-in-the-Dark with a Polish anti-aircraft battery did not appeal to Dennis at that moment.

Climbing and weaving on his new

course, Dennis at last reached an altitude that seemed to pull him out of range of the guns below. At any rate, the explosions were not nearly as close now as they had previously been. He was congratulating himself on his plane and his ability when he sensed, rather than saw, the reason for the lessening of fire. The guns were ignoring his ship, now, and concentrating their bursts on a range a little less than a mile to the right and above Dennis—, a section of sky almost blackened by German planes. The German sky raiders were over Warsaw!

The terrorizing wail of the warning sirens was drowned out swiftly by the thundering detonations of bombs falling in the heart of the city. The anti-aircraft batteries were now ripping the sky apart in an effort to drive off the raiders. Dennis felt as though he was an uninvited guest at a Mardi Gras in Hell. Feeling most unwelcome, and having no particular desire to linger until the Germans became aware of him, Dennis made up his mind to get the hell out of there.

* * * *From The London Times, September 2, "Military circles were still perplexed, this evening, over Poland's reason for not bringing her Air Force into the defense of Warsaw when the city was bombed by Nazi aircraft."*

Dennis, realizing that it would necessary to alter his course once more, threw his throttle wide open in a snarling climb. If he could get above the altitude at which the raiders were flying he might have a chance to slip through unnoticed. He ran his tongue across dry lips and breathed a silent prayer, his eyes glued to the altimeter. He was leveling off when the first anti-aircraft searchlight picked him out. Dennis cursed in desperation, throwing the

ship into a swift bank-skid. It was a wild maneuver, but it worked. The damage, however, had been done, for in the next instant a shell exploded within a hundred yards, shaking his plane like a piece of paper in a gale.

Dennis felt the shrapnel ripping into the belly of his ship. A piece of it smashed through the pane on the glass covering his cockpit. He was too busy righting the ship to appreciate the miracle that spared his life and his motor. During the next five minutes it seemed to Dennis as though every anti-aircraft shell in Poland was bursting within a five hundred yard radius of him. Twisting, turning, slipping, sliding, he was putting his ship through every acrobatic maneuver in the gamut.

In the middle of a wild circle Dennis heard a sudden roar above his shoulder, felt a shadow falling swiftly down on him. Instinctively he straightened out, not an instant too soon. Like a flame spurting comet, a Nazi pursuit ship dropped sickeningly past him—a coffin hurtling earthward. Dennis realized too late that his maneuvers had brought him directly beneath the raiders. Even now they must be aware of him. His heart turned a ghastly somersault. He shot a quick glance upward over his shoulder. There they were. Nazi bombers, convoyed by formations of combat ships! They were only a little over a thousand feet above him, ominous, shadowy birds of prey. Dennis struggled with the wild impulse to dive his ship earthward, and even as he did so, three ships detached themselves from the first convoy formation, roaring down directly at him.

The hawks, returning homeward, had seen the sparrow and were now giving chase. Three hundred feet from Dennis, the first combat ship opened fire. Lead sprayed the cockpit cowl and the second Nazi fighter let loose with a

fresh burst of sharp machine gun fire.

DENNIS dove, the wind screaming through the broken cockpit pane, his throttle wide open. It was a matter of sheer luck that he angled his power dive in counter-direction to the dives of his pursuers, and it was all that saved him. When he yanked out of it, fifteen hundred feet later, his action was abrupt enough to clear his tail of them for a few precious moments.

Looking upward, he could see the bombers and their convoy growing smaller in the distance. Evidently they were heading directly back to their lines, figuring that three combat ships should be able to dispatch Dennis in a few moments. Dennis had time for one brief gulp of thanks, then he heard the snarl of the Nazi combat ships climbing back at him.

A sportsman pilot in a racing ship, unarmed, unversed in military flying—faced by war birds, outnumbered three to one! Dennis knew that there was small hope of coming through alive. There might have been, had there been any chance of landing. But the Polish anti-aircraft knew that any planes in the sky tonight were not their own. In a split-second panorama, Dennis had a mental picture of his father, the portfolio, and the white-faced consular orderly who had given it to him. Then Death, in the form of tracer bullets, was spitting venomously at him once more.

As the Nazi combat planes closed in on him again, Dennis did a desperate and accurate bit of calculation. He knew that the one-sided affair could only last a few brief minutes more. He was also quite aware that those short minutes probably marked his last seconds of life. His decision was swift. He would gamble skill against arms, nerve against numbers. The first step

of the scheme depended upon his skill—and a great amount of luck.

Dennis leveled his ship from the climb he had started into. He could hear the combat planes roaring after him. A quick glance over his left shoulder showed him that they were closing in as before, in a "V" formation directly behind him, with a slightly higher altitude. As he expected, the Nazi airmen were in a hurry to be done with him and rejoin their convoy flights. Their machine-guns were chattering simultaneously in short bursts, but they were not close enough, yet, to do damage. Fighting against every instinct Dennis forced himself to hold his line of flight until the first tracers ripped into the tail of his ship.

Eagerness to finish the job, the inky blackness of the night, under-estimation of their victim, anyone of these can be called responsible for what happened in the next moments. Throwing the throttle wide open, Dennis banked sharply, then dove. His motor pounding furiously, he pulled out of the dive—out and up—and began to climb. He was now flanking the combat ships, and they were jockeying frantically in the same formation. Dennis turned to his nerve to finish the job, angling straight at the side of the group, motor wide open. Someone would have to give way, and Dennis knew he wasn't going to do so.

* * * *From The London Times, September 3, "An official communique from the Polish Army Headquarters in War-*

saw reports that Polish anti-aircraft downed two German planes during last night's bombing of the capital. Two other German planes fell when they collided in the darkness."

The Nazi airman saw his victim driving head-on at the side of his ship, frantically he pulled up in a steep, banking climb—driving into the under-structure of his slower comrade in the combat ship to his right. They fell earthward locked together, a blazing streak of orange flame. Dennis Carradine had had luck to aid his skill. . . .

JAW set in resignation, Sir Francis Carradine carefully folded the cablegram from Basel, Switzerland. Dennis said that he was safe, but had a time of it with some German airplanes—while flying from Warsaw. Dennis assured him that he would have the portfolio in London by morning, and half-humorously commented on the advantages of air travel over land transportation. A tall, moustached gentleman leaned over and whispered a few words into Sir Francis' ear. "I am sorry," said Sir Francis, "but it failed, utterly. They never intercepted it." He looked at the clock on the wall: 11:30. Parliament was crowded, but silent. No answer had been given to the ultimatum. The Prime Minister entered the chamber. . . .

* * * *From The London Times, September 3, "ENGLAND IS AT WAR!"*

THE BIGGEST ISSUE in the History of Photography
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THEY DID IT FIRST

By H. ELLIOTT

IT may be that the world was too near the dangerous days of the war in 1919 to be properly thrilled by the hair-raising feat of a non-stop flight across the Atlantic. Or it may be that the great god ballyhoo had not developed its present stentorian lungs. At any rate the pilots of the first airship to cross the Atlantic were forgotten in a fortnight.

On June 14, 1919, a gallant team of air men, Captain John Alcock and Lieutenant Arthur W. Brown, flew from St. John's, Newfoundland to Clifden, Ireland in a Vickers-Vimy biplane, powered with two 375 horsepower Rolls-Royce motors, carrying 870 gallons of gasoline. Their food consisted of coffee, ale, sandwiches and chocolate, with which they spanned the 1,890 miles in 16 hours and 12 minutes. This was nine years before the flight of that slim young man who today is still a hero in the eyes of the nation.

Perhaps Alcock and Brown made a mistake in not flying on to London so that the mob could see with its own eyes what they had really done. Today there would have been reporters at St. John's to see the pair off and others at Clifden to receive them.

In front of Lindbergh, Chamberlin, Byrd and later pilots were instruments which told them at all times whether the machine was on even keel; even though their senses might assure them into flying correctly, the instruments would serve as a check of proper equilibrium and direction. Knowing that Alcock and Brown had almost none of the instruments then which make "blind" flying possible today, yet managed to come down just where they intended to, makes one realize that theirs was truly a remarkable feat of navigation.

From Alcock's own description of his

experiences we learn that almost immediately after the take-off the tiny propeller operating the wireless dynamo blew away so that they were cut off from radio communication from the very beginning. They saw the sun but once during their entire flight, and for hours neither the moon nor stars were visible. There was a very dense fog and at times they had to descend from within 300 feet of the sea. Their hazardous position increased with the appearance of ice covering the machine for hours, caused by frozen sleet. The fog getting denser soon put the speed indicator out of working order. Captain Alcock believes they looped the loop and did a very steep spiral and performed some very comic stunts, having lost their sense of the horizon. Once during the night they did not know whether or not they were upside down. At another time, due to the heavy fog, they found themselves within ten feet of the sea. For 1½ hours before they saw land they had no idea where they were but believed they were at Galway or thereabouts.

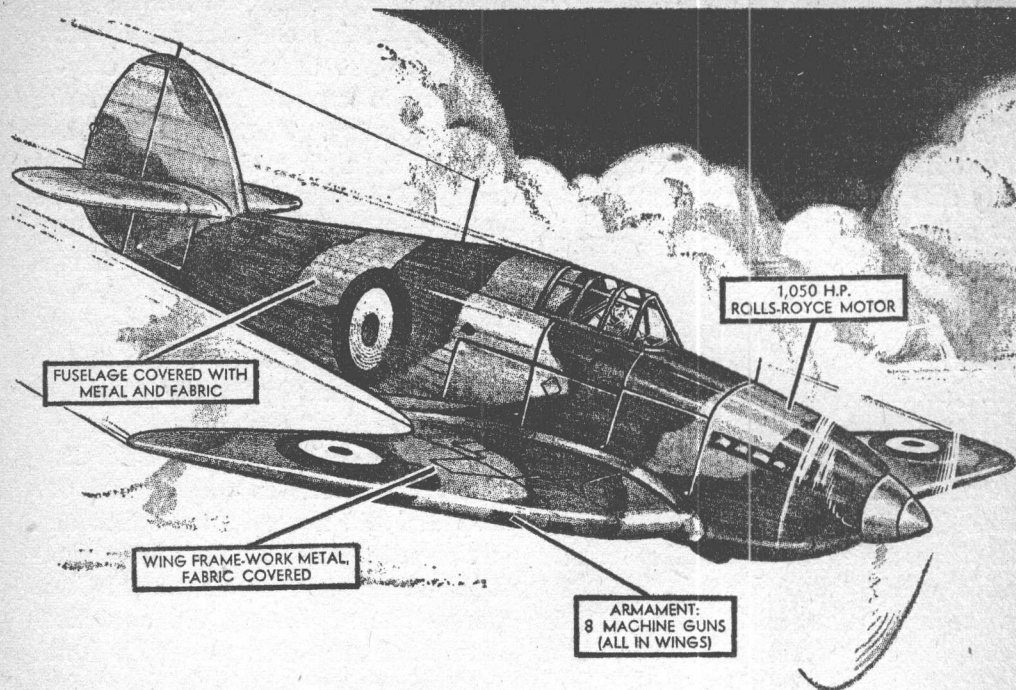
When they landed people didn't know who they were and thought they were scouts looking for Alcock and Brown believing they were lost.

They had plenty of reserve fuel left having used only ⅔ of their supply.

For this feat they won the London Daily Mail \$50,000 purse—⅔ to Alcock and ⅓ to Brown—and were knighted by the King, even though Brown was an American.

Time often remedies injustices of a contemporary verdict, and it is pretty safe to say that when today becomes history a century old, it will be Captain John Alcock and Lieutenant Arthur W. Brown who will be honored above all others because **THEY DID IT FIRST.**

HAWKER BRITISH HURRICANE V S.



THE battle that results when the British "Hawker Hurricane" meets Nazi Heinkel He-112 is swift and terrible. Both pilots have terrific speed, although the British ship is capable of about 17 miles per hour in excess of the Nazi plane. The battle between these two would take place at high altitude, since the Hurricane's pilot would climb to get above his opponent and dive down upon him in lightning attack. In turn, the Heinkel's pilot would turn his ship swiftly to avoid the eight sputtering guns of the Hurricane, and climb. It is then his turn. He zooms to the attack with his

SPECIFICATIONS

TYPE—Single seat fighter monoplane.

PERFORMANCE—Maximum speed 335 m.p.h. Climb to 20,000 ft. in 9 mins. Landing speed 62 m.p.h.

POWER PLANT—One Rolls-Royce "Merlin II" twelve-cylinder Vee liquid cooled engine rated at 990 h.p. at 12,000 feet and a maximum output of 1,050 h.p. at 16,000 ft. Fixed-pitch wooden airscrew and now some come equipped with a controllable pitch propeller. Ducted radiator under fuselage below cockpit.

WINGS—Made of steel and aluminum-alloy frame-work fabric covered.

FUSELAGE—Rectangular structure of braced aluminum-alloy and steel. The forward part is covered with metal and rearward portions with fabric.

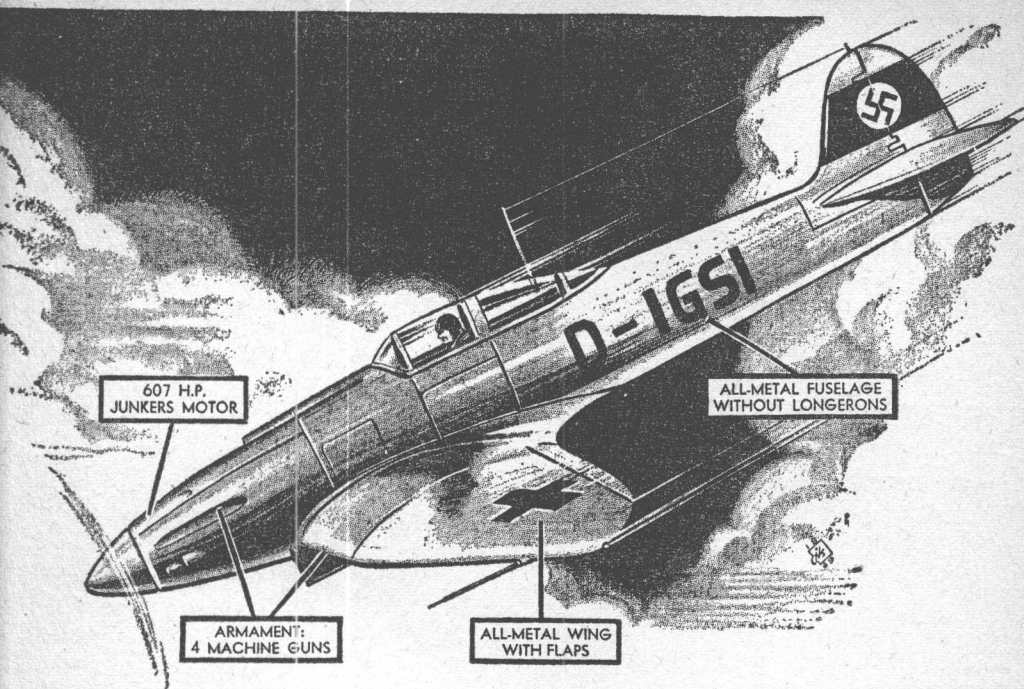
UNDERCARRIAGE—Retractable with two Dowty shock-absorber struts hinged at the extremities of the center-section from spar and retracted inward and slightly backward by Dowty hydraulic rams to bring wheels between spars when raised. Dunlop wheels and hydraulic brakes. Dowty retractable tail-wheel unit.

ARMAMENT—Eight machine-guns in wings, four on each side of fuselage, firing outside disc swept by airscrew. Night-flying equipment with landing-lights in leading-edge of outer wing sections, navigation lights, oxygen equipment, radio, flare tubes.

DIMENSIONS—Span 40 ft., length 31 ft. 5 in., height 13 ft. 3 in., wing area 257.559 sq. ft.

WEIGHTS—Weight loaded 6,000 lbs., wing loading 23.3 lbs., power loading 6.7 lbs. per h.p., range about 650 miles.

NAZI HEINKEL HE-112



own four guns spitting flame. But unless he gets in a death blow, he finds himself outmaneuvered. The British ship has more wing-surface and with his added speed, the Heinkel cannot get on the Britisher's tail. Having failed in his swift retaliation, the Nazi drops away, lets his load of bombs go, and streaks for home. His only salvation in this event is to cover enough distance to cause the Hurricane to abandon the chase, since the British ship cannot remain in the air more than two hours. The end of such a fight is either lightning death, or several futile thrusts and speedy flight.

SPECIFICATIONS

TYPE—Single seat fighter monoplane.

PERFORMANCE—Maximum speed 316.7 m.p.h., climb to 3,280 ft. in 1.2 mins., range 2,110 miles.

POWER PLANT—One 670 h.p. Junkers, "Juno 210G" twelve-cylinder inverted Vee water-cooled engine, driving a three-bladed constant speed propeller. Fuel tanks are in the center of the wing and the radiator is located directly below the engine.

WINGS—All-metal low-wing cantilever monoplane. Wing-roots swept up at their junctions with the fuselage. Whole trailing-edge hinged, the outer portions acting as ailerons and the inner portions as landing flaps.

FUSELAGE—Light metal monocoque (a fuselage without longitudinal members) the outer shell carrying most of the stresses.

UNDERCARRIAGE—Retractable type mounted on normal long-stroke oleo (oil shock absorber springs) legs. The retracting mechanism is worked hydraulically with oil. The wheels are provided with fairing plates which completely seal the wheels under the wings when retracted. A telltale indicator shows the position of the undercarriage at all times. Wheel brakes are provided. The oleo-sprung tail wheel also retracts.

ARMAMENT—Two fixed machine-guns in sides of fuselage and firing through propeller. Two automatic guns in wings outside of disc swept by propeller. Racks for six 22 lb. bombs. Radio transmitting and receiving equipment.

DIMENSIONS—Span 30 ft. 2 in., length 29 ft. 6 in., height 12 ft., wing area 183 sq. ft.

WEIGHTS—Weight loaded 4,906 lbs.

The Coward

By **ORLANDO RIGONI**

Lieut. Redd was a coward. He admitted it. But when Lieut. Stringer ordered him to sacrifice the lives of mere kids, Redd had to fight more than a yellow streak!

DAMN you!" Captain Grady roared, his beefy face flushing carrot red under his straw hair, "haven't you got the guts to carry out orders?" The veteran Yank ace who had joined the British in 1914 and stayed in the Service to see the advent of the Second World War was fit to be tied.

Lieutenant Redd tried to force his eyes to cling to the captain's face, tried to ward off the sting of Grady's words that were shaming him before the whole fighter squadron. His big hands were clenched so hard that the nails cut through the skin but he didn't feel them.

He groped desperately for words. "I—I couldn't get through, I tell you. The Nazis had us blocked. . . ."

Grady broke him off angrily, "Crowther got through—at least he didn't come running back here with his tail between his legs. I've seen you fight before, Redd—I've watched you dodge the tough spots and make your pitiful attempts to cover up the action. I saw men of your stripe in the last war. You ran out like a cur, let Crowther go on alone and I'll bet he never comes back."

Redd hardly heard the last words. Why must he breathe so hard? Why couldn't he stick his chest out, curse the captain for a fool, and strutting loud-

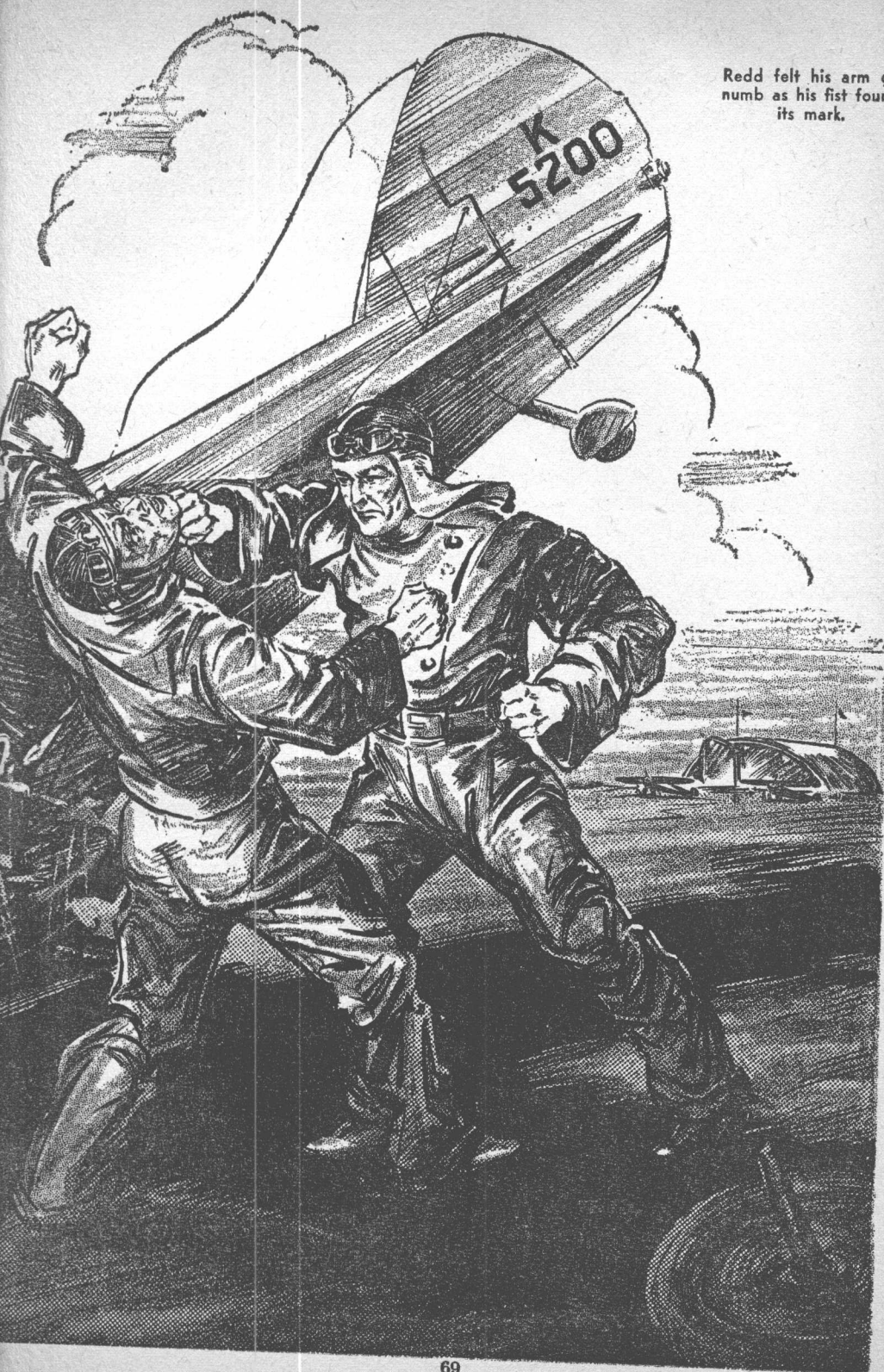
mouth? Why must the dull edge of fear frighten him into doing things he was ashamed of?

The odds were greater than Grady mentioned. In fact there were no odds on a sure thing. Crowther would never be back. All of the love and respect No. 10 Fighter Squadron held for Crowther couldn't bring him back. There would be no more of his humorous stories to relieve the tension before the takeoff—no more of his funny tricks at mess, nor any of his fatherly advice to the fledglings scarcely younger than himself. Crowther would never be back.

Redd's mind flashed back to that spot of hell he had just run away from. He and Crowther had been assigned to locate a hidden battery of the Siegfried Line just north of Rochonvillers and had met with four Henschel reconnaissance ships over the Maginot line.

The fight didn't last long. Crowther bored in without fear, smashed his Gloster "Gladiator" into the Nazis and crippled one of those ships. Then the other three jumped him and sent a wall of Madsen slugs ripping him to shreds. There was a moment when Redd could have torn in and ripped the trap apart—one moment when he could have dared that hail of lead and cut Crowther loose.

Redd felt his arm go
numb as his fist found
its mark.



He let the chance go by—flew wide of the death-spot while he saw Crowther's face smashed into a pulp of skin and blood. Why must he be damned with that sub-conscious caution which eternally made him out a coward! Thank God these fellow officers of his didn't know the truth—thank God they didn't know that he had committed the unpardonable sin of a pilot. He was safe now, and they would never know.

Captain Grady's flushed face bleared before his eyes. He had to say something—had to carry it off with some show of resentment. After all, he had pride.

"I resent your remarks, Grady. You talk as though I—I had killed. . . ."

"Resent and be damned!"

Grady lunged toward him, his big fist driving out from the shoulder. Redd had a horrible desire to run, but he braced himself. He wasn't in the air now where nobody could see his shame. He had to stand and take it. For a fleeting instant he saw an opening through which he might land a blow, but that damning caution in his mind made him hesitate until the chance was gone.

If he did land one blow, the captain would land ten—would beat him into a blubbering pulp. Redd threw up his arms wildly, but he was too late. The captain's fist lashed through his futile guard, struck with explosive force in his face.

Redd went staggering back—back—back right into the path of the field truck that was roaring along the line to the supply shed. There was a scream from the men—they stood paralyzed with the sudden horror of what was about to happen.

Then, out of the group of fledglings clustered near the scene, a slim form darted like a sword. The form struck Redd in a flying tackle and knocked

him out of the path of the truck. But the slim form didn't roll clear. There was a cry of pain, the shouts of men.

REDD was half dazed, hardly able to recognize what had happened. He staggered to his feet, tore his way through the pack of men to the side of the youngster who had saved him from certain death. Redd was on his knees, gripping the kid's hand.

"You were a fool to do that for me—I'm not worth it," he spluttered.

The youngster grinned. There was no cowardice in those brown eyes. There was a strength there that was above the slight physical body that contained it.

"It was nothing, lieutenant," the kid, whose name was Vance said eagerly.

"Hurt much?"

"My—my foot, that's all."

Captain Grady plowed through. "Get back, you blighters. Two of you carry him to the infirmary!"

It didn't take two of them. Redd, his face cut and bleeding where Grady's fist had bruised it, picked the kid up in his two thick arms and marched off with him. He wouldn't leave the infirmary until the M.O. told him that the truck had just run over the tip of Vance's shoe and had broken two of the smaller toes.

Redd needed a drink, but he didn't have the nerve to face the men in the canteen. He'd made enough mess of the day so far. He was afraid to think of what the men would do if they could guess that he had been responsible for Crowther's death. He sought his room.

He got his private bottle of cognac, and took a long pull. The fact of Crowther's death grew on him, and now that it was over he could see a dozen different ways in which he might have saved him. It was always like that. In the heat of the moment his nerve de-

served him, as though some part of his mind became numb in order to protect him from personal harm. And always, after the moment was over, he could think of a dozen things he should have done, things that any man worthy of the name would have done at the right time.

Even that fight with Grady. Why hadn't he plowed in, punching, punching, punching until he could no longer stand? Why did he have to throw his arms up like some old woman to ward off the blow? He thought of the kid, Vance, and knew in his heart that had he been in Vance's place, the affair of the afternoon would have ended differently. Sure, if Vance had been a coward, he, Redd would now be dead—just like Crowther was dead!

It was always like that. As a kid he failed to make the Rugby teams and shrugged the matter off with a remark that it was a fool's game. He lacked the courage—the nerve for physical

conflict. He avoided fights. He took insults rather than use his fists, and always stated with convincing scorn that it wasn't worth fighting about. He was afraid.

And yet there were other times, like when he saved his dog from the burning shed, and when he climbed up the side of the house to rescue a wounded bird. That was courage, but not the kind that fought a war.

There was a knock on the door. Redd stiffened, and shoved the cognac out of sight. "Come in," he called gruffly.

The door flung open, and Lieutenant Stringer legged in with that cock-sure air of his. Redd scowled. What did Stringer want there? They were unfriendly since the day when Redd caught Stringer snooping around the captain's office and threatened to report him. He didn't report him, but then his knowledge was a threat over Stringer's head. He never learned what Stringer was looking for.

"What do you want here?"

Redd said stiffly, glaring at the skinny man.

"I was flying solitary, today," Stringer said.



The form struck Redd in a flying tackle, knocking him out of the path of the truck.

Redd tensed. "So what?"

"I happened to see four *Henschels mix with two 'Gladiators' just north of Rochonvillers. I couldn't get down in time to help. It would have been a good fight if one of the 'Gladiators' hadn't got scared out at the wrong time."

REDD could feel his face go white.

He sat very still and a thousand fears seemed to grow and grow until his mind and body were swollen with them.

"That's a lie, Stringer—you're guessing." Redd wanted to leap forward and strike the skinny man, but he didn't dare.

"If I could guess like this, I'd soon be rich, Redd. I saw Crowthers cripple that first ship, saw the other three gang up on him and tear him apart while you flew around like a baby chick with the hawk scare. They got him, all right, and it was your fault."

Redd knew that denials were useless. Gritting his teeth, he felt that old fear stirring in the back of his mind. He had to protect himself somehow.

"So what, Stringer?" he asked dully. "You can't prove it was my fault. Other men have died like that."

"Do you think this gang would swallow any excuse in Crowther's case? No, damn you, they wouldn't."

"You're going to tell them?"

* The Henschel Hs. 126 is a two place reconnaissance, parasol type monoplane. It is powered with an 870 h. p. B.M.W. 123DC radial, air cooled engine. One fixed machine-gun fires through the propeller and a flexible gun is operated by the observer.

** The Gloster "Gladiator" is a single-seat, bi-plane fighter powered with a Bristol "Mercury IX" radial, air cooled motor of 840 h. p. It carries four machine-guns, two mounted in troughs in the sides of the fuselage and easily accessible to the pilot, and two mounted below the lower wing, one on each side of the fuselage and firing outside the propeller arc. Maximum speed is 250 m.p.h.; very maneuverable. Climbs to 20,000 ft. in 9 min.

Stringer paced the floor, his gaunt body casting weird shadows upon the wall. "I'll not tell them on one condition."

Redd was grasping at straws. "Name it."

"Captain Grady sent me down to ask you to report to him. I happen to know he's taking you out of active patrols, going to let you handle the rookies on their warm-up flights," Stringer went on earnestly.

"What has that got to do with you and me?" Redd growled.

"You're going to lead those replacements to where I tell you, see?"

Redd felt a shock of warning. "It isn't possible you're a spy, Stringer?"

Stringer laughed. "Me a spy? Hell, no! Would I be breaking my neck to knock down Nazis if I was? I've got six planes to my credit."

"What's the idea, then?" Redd leaned forward tensely. He should have knocked Stringer down. He should have told him off and then have admitted his guilt to the squadron, suffering the penalty of his cowardice, but he didn't have that kind of nerve. All of his instincts screamed for him to take the best way out.

"Never mind that, now," Stringer said slyly. "Do you fly where I say?"

"I'll have the youngsters to think of."

"It might do them good."

Five minutes later, as he faced Captain Grady's tight face, he winced under the man's stinging rebuke. Let them insult him, damn them! At least he was alive.

"I'm taking you out of active patrols, Redd. Crowther hasn't come back, and I don't think he will. From now on, you're nursing the replacements. Keep 'em out of trouble. I don't have to warn you on that score," he said cuttingly.

BUT Redd didn't sleep well that night, for he knew that whatever Stringer had planned, it meant trouble for the fledglings. Maybe he'd better take his medicine after all. Crowther was gone, and the others couldn't do any more than snub him. Or could they? They might harm him, might force him out on a suicide flight. No, he'd take his chances with Stringer.

The next day, Redd strode to the line and found a dozen youngsters eagerly waiting for him. Respect was in their eyes, a little awe in their young faces, for he was a veteran with three victories to his credit. Three victories, when he should have had ten!

Stringer drew him aside. "Take 'em across Sieriek and angle up toward the Moselle sector, Redd."

Redd flushed angrily. "That's bad country, Stringer. Action is concentrated in that sector. We'll be jumped sure as hell in Deuteronomy."

"They've got to meet the Nazis sometime. Might surprise you what they can do. After all, you know, we're not all yellow."

Redd winced at the dig, and strode to his ship. He legged in, pulled his goggles down, and inspected his gauges. Vance, the kid, was hobbling around on a crutch to watch the take-off. He waved with a wide grin.

Redd waved back and then kept his eyes on his ship. He jabbed the throttle wide, felt the Bristol "Mercury" buck and roar in a blast of red-tongued power. He throttled back, signalled to the eager kids. Chocks out! He kicked the engine wide and felt the Gloster slide forward and gather speed. Then he was circling up, up, up!

He thrilled to see how expertly those kids zoomed into formation. Then he realized what his promise to Stringer meant. He knew Stringer would follow them, but he didn't know just why.

After all, they might not meet a Nazi ship on the flight. He headed for Sieriek and saw the "pillboxes" of the Maginot Line slide past his wing tip. There was real hell down there—mud and filth and rats and constant death.

He circled over Sieriek and headed toward the Mosselle. He looked back at the perfect formation and a weird echo seemed to throb in his head. He suddenly realized what it meant and wagged his wings fiercely. He dodged out of formation as the six Heinkels tore through, taking a rookie with them.

Redd flattened and stared wildly about him. A black column of smoke marked the death dive of the first rookie. He was afraid the others would lose their nerve at the sight, but he was wrong. Those kids swarmed upon the Nazis like pups on a pile of bones! The Huns recognized the rookies for what they were and played the old smart game.

Redd tried to warn the kids. The Nazis would let the rookies get on their tails, then they would flip over in an expert Immelmann and blast the unsuspecting youngsters. One kid went down that way, but the others caught on.

TWO of the rookies downed a Heinkel between them. Redd saw another Heinkel roar in to wreak vengeance upon the fledglings, and lined his own sights. He knew he should tear through the fight and bust that play, but to do that meant daring the fire of a dozen Madsens bristling from the Hun ships.

Redd stabbed the trips in a long, wild burst, and saw one of the Heinkels explode in a flurry of flame and smoke. That shot was pure luck, but the kids didn't know it. They cheered him by waving their hands.

The kids got another Heinkel, and

things tightened up. At the same instant a "Gladiator" dived down out of the clouds, a dirty "Gladiator" with a horse's head on the pit. Stringer slashed in, caught a Heinkel dead center and gutted it. Then he pulled out, turned tail and ran for home.

Redd began to suspect the play. Stringer was using the rookies as bait for his own benefit. He was padding his score of victories at the expense of the kids. The Nazis, so engrossed in the cold meat, failed to see him drop upon them.

But why did he run out? Why didn't he stay and help mop up? That was it! Four more ships were zooming up, green Messerschmitts with the white cross of Von Goetig upon the wings!

The rookies didn't know what that meant, but Redd did. The ace outfit of the Nazi Air Corps was coming into the fight. There would be more of those green Messerschmitts above them, perhaps they were coming down already!

In desperation, Redd slammed his crate through the fight. The three remaining Heinkels turned their guns upon him. He felt slugs hammer into his longerons, heard them smash into his crashpad, saw them cut swatches from the wings!

The rookies were awed by his daring. Redd was numbed with fear and his white lips kept praying, praying, praying until the prayers turned into screams and curses as the rookies lagged behind. At last he got them clear. He didn't stay behind to protect them, rather he souped the "Mercury" and set the pace for their flight back to the drome of No. 10.

Not until his wheels touched the ground, did he realize what he had done. He disobeyed orders, he lost three out of the twelve kids—three of those youngsters who, but an hour before had flattered him with their rapt attention.

But there was another side to that story, too. The kids had shot down three ships! That was a record for any flight. Redd himself had downed one, and Stringer another. Five ships accounted for!

Five ships could never make up for the three kids who had died. That thought haunted Redd. He could see, now, the looks of surprise, and horror upon the faces of those kids who had died. He had taken them out there to save his own dirty hide!

Dumbly he waited for Captain Grady to send for him, but there was no call. Why? Why didn't the captain call him on the carpet and denounce him? He had disobeyed orders.

He sat on his bunk and, with his teeth, he pulled the cork from his cognac bottle. Then he drank long and hard. The cognac surged through his blood like flame. The room seemed to spin about him and he could see faces—white faces—bloody faces—faces twisted with horror. Then he saw a face that made him stiffen with rage. It was the skinny, sneering face of Stringer coming in through his door.

Redd crouched to his thick legs and put the bottle down. Stringer was talking in his cocksure, confident way:

"Damned pip pip fireworks, lieutenant. Smart to take my advice. The kids didn't do bad at all."

Didn't do bad? Three of them dead before they could get a taste of glory. Three young, strong bodies that had been born in agony, reared in love, fed and clothed with all the devices of industry. Three young bodies that had been trained to kill and to glory in the act. Those three bodies were no more, just because he was a coward, and Stringer was a heartless buzzard!

"Damn you, Stringer, you made me kill those kids!" Redd cried hotly. He was lunging forward, his fist was crash-

ing out. He struck Stringer on the side of the head and banged him against the wall.

THE shock of the blow drained the anger and hate from Redd and he felt again that old haunting fear of physical hurt. He steadied himself, waited for Stringer to lunge at him, but Stringer didn't lunge.

"Cut the dramatics, Redd," he said crisply. "The kids didn't do bad at all; fact is that not another flight in the squadron could have done better."

It was a laugh. Hadn't he run out with his rookies when the going got tough? Those first victories had just been beginners' luck. The same as his long shot had been lucky. The next time—no, there wouldn't be any next time. He said so. "We're quits, Stringer. I'm not baiting any more cold meat for you."

"I think you will."

"Like hell!"

"The men are having a testimonial dinner for Crowther in a few days. It would be just fine if they should learn then that you fed Crowther to the Nazis because you were afraid to save him."

Redd felt cold as ice, and he could feel his heart pounding. He knew that Stringer had him beaten.

"Where do we fly tomorrow?" he asked dully.

"Farther north where the Mosselle corkscrews at the foot of the Hunsneck mountains," Stringer said quickly.

"That's Von Goetig's territory."

"Righto. I'd like to get the Von reward and all that, you know."

When Stringer had gone, Redd drank again. If he had any guts at all, he'd go to the captain and tell him the whole works. He'd beat Stringer to the jackpot by confessing what he had done. After all, he owed the rookies a chance.

As though in answer to that thought, the door opened and the rookies who flew with him that morning crowded in. Vance, on his crutches, was with them. Redd tensed, and then he realized the kids came to praise him, to thank him for the chance he had given them to get into the real fight.

The curly headed Lieutenant Woodruff did the talking, and his eyes glowed with admiration. "You gave us a chance few kids get, sir. Of course we lost three men, but we more than made up for that. We just hope you'll take us back to the Front again. If it's against orders, we'll cover it up."

Redd felt a flush of admiration for the plucky youngsters. He told them so, and he told them a lot of other things about the empty husk of glory, and the doubtful cloak of honor. They brushed his arguments aside.

When they left, Vance remained behind. "I want to fly with you, Redd. My foot don't hurt much and the cast will keep the bones in place. The fellows haven't talked of anything but that fight and how you can pick off a Nazi from impossible angles."

Redd began to feel a strange glow that had never been his. He was a hero to those kids, and he wouldn't let them down. But with Vance it was different. He had to save Vance from that certain death.

"You can't fly with a clubbed foot. It takes every damned thing you've got to slam a plane around in a dogfight. Tenths of a second mean the difference between life and death. Ten days from now, maybe, when the cast is off your foot." Redd thought, dully, that ten days from now there wouldn't be a rookie left.

But it turned out that he was wrong. The next day he took them out. They roared into a dogfight with some red Heinkels. Von Goetig didn't show up,

but Stringer did, and when Stringer made his kill, he remained to help mop up the Germans.

STRINGER got two victories that day, the kids got two among them. One of the rookies was forced down and another was burned. Redd gave no thought to making a tally himself. He was too busy screaming in here and there to save the kids from death.

Not until he got back to the drome of No. 10, did Redd notice the holes in his wings, the splayed left outside strut, nor the bullet hole in his pyralin windshield. During the fight he had no sensation of exceptional danger. He had been so engrossed in herding the rookies he had forgotten about himself!

Perhaps that was the trick—the way to escape cowardice. Even Stringer congratulated him, and though it was more in sarcasm, Redd knew that it was backed up with truth.

He didn't hit the bottle so hard that day, and waited for Grady to send for him. But Grady didn't send for him. What the hell? The captain must know what was going on. The kids put up a score board in the hangar and proudly marked their victories upon it. Everybody could see it. Everybody could understand.

He didn't fly the next day. More recruits came and filled the ranks for those who had gone. The following day, Redd ran head on into hell. They were mixing with some Heinkels near Verdun, when Von Goetig's green Messerschmitt's wings slammed in among them, the Daimler-Benz motors spewing flame from the exhausts.

Stringer flashed down, trying cautiously for a shot at Von Goetig. Redd, stunned by the swift strike of death, saw four of the dozen rookies go down almost at once. The sight sickened him. He roared in to cut them loose,

and suddenly found himself in a position to get Von Goetig.

The realization of that fact wiped everything else from his mind. Jerking a look back, he saw two Nazis screaming toward his tail. The old fear gripped him. He could get the Von, maybe, but the Huns might also get him. Cursing himself for a coward, he swung off frantically, roared back against the Glosters and forced them out of the fight.

When he got back to No. 10, he strode to the hangar to make out his report. He heard Stringer come in minutes after the flight had landed. Stringer's ship was shot to hell and he fought to hold it into the wind. It struck the ground drifting, smashed into a ground loop and Stringer was catapulted from the cockpit.

Stringer, shaking but unhurt, legged up to Redd with his long legs working like pistons. His face was chalk white. Without a word, he struck Redd across the mouth with his open hand.

"Damn you, Redd. You ran out like a cur, herded the kids away from a he-man fight and left me there to die!"

Redd could feel a deadly anger surging through his body. He leaped and struck!

"You made your bed, Stringer!"

Stringer half-dodged the blow, bored in with his lean fists slashing like clubs. Redd felt the bony knuckles bruise and cut and smash. He felt little pain. He crouched, warily, pushed in toe to toe and felt his arm numb as his fist found the mark.

THE ackemmas* and ground men circled them, the rookies closed in cheering for their leader. Redd heard the jumble of sound but he saw only Stringer. His hate of the man consumed every other feeling.

* Mechanics.

Grunting, pounding, dodging the two men fought. Blood masked out their straining features, dust rose like a veil about them. Redd saw that lean, bloody face clearly through the haze. He jabbed his fist for the crooked nose!

Stringer went down, and Redd felt a terrible urge to fling himself upon him, and sink his fingers into the lean throat. He shook himself, turned dazedly and wormed his way through the crowd and reached his own room.

He had a curious feeling of satisfaction over that fight. Not once was he plagued with fear. He did the things that he always before thought of too late.

Three more days until the testimonial dinner! Redd didn't wait for Stringer's direction any more. He led the kids into the fighting zone because they wanted it. Stringer followed them like a vulture eager to feast upon offal.

Redd noticed a peculiar thing. Of his first twelve rookies, eight were left. The ones who filled in those other four spots were the ones who died. The eight seemed to be born for this grim business.

Woodruff had already made his ace tally, an almost unheard of thing in so short a time. Two others were just one victory behind him. The rookie flight began to take on importance and the list of their victories posted in the crateshack grew longer every day. Redd was shocked to see the size of his own score. The kids kept careful account of his victories—victories which he almost forgot in the heat of the fight.

Vance troubled him daily for a chance to fly, but Redd kept putting him off. The kid had to be saved. He wasn't one of the favored eight. He would be one of the unfortunate four. Redd told him so and refused to let him fly.

The day of the dinner, Redd got

sloppy drunk. He didn't want to be at the dinner, and he deliberately got himself into such a condition so they would have to ignore him. He was afraid to ask what had gone on during the dinner.

A lot of Gold Braid and some high French Officials had come for the dinner and the next morning Redd heard from Vance that the rookie flight had been given high praise. Vance had the cast off his foot, but despite his effort not to limp it could be seen that the foot was weak from lack of exercise.

"I belong to that bunch, Redd. You've got to take me up today because the visitors are going to inspect the drome," the kid pleaded.

"Maybe you think I'm hard, kid, but I'm not. I owe you a lot, and I don't want to have you die on my hands."

"I'll be responsible for my own fighting."

"Sure, but that won't make you any less dead when the Nazis whack you down."

AS Redd crawled into his ship preparatory to leading the Rooky Flight out, he saw Captain Grady leading the visiting officers toward the line for inspection. He didn't want to face the captain, and looked quickly along the line to see if the kids were ready.

Vance was hanging around still anxious to go, but he couldn't go as there wasn't an extra ship. Redd quit worrying about him on that account. Then, suddenly, the ground seemed to shudder at the roar of twin engines blasting from the sky. Redd jerked a look up and saw three huge Dorniers with their twin 950 h.p. Daimler-Benz motors filling the sky with thunder.

Here was a chance to put on a real show. Those bombers were returning from a raid on children and women! If the rookies really wanted to do something they could blast them into hell!

Redd jabbed his trips, walked the Gloster off the chocks. He saw Stringer taking off at the same time. After them came the rookies, only the favored eight of them. Redd circled up—up—up! Five thousand feet—six! Ten thousand!

He jerked a look back and mentally counted the planes. Eight? No, there were nine of them! He could see Vance's freckled face grinning at him across the cowl of a dirty "Gladiator."

A thrill of horror shot through Redd. The ship had been on the repair line and the crazy kid had taken it off without an O. K. There must be something wrong with it. It seemed to fly all right. Hell, he couldn't waste time on the kid.

They were level with the Dorniers. The swift "Gladiators" soon overtook the rear Dornier. Redd dived his ship for the bomber, saw the man in the top pit swing the bracketed gun. Redd felt hot lead whip past his ear. He didn't falter, he jabbed the trips and saw the Dornier's tail feathers flap loosely, control wires shot away!

The rookies crowded in, helped him chop the bomber to bits, and he watched it wheel, turn over, and explode as the gas tank let go. He waved them on. Vance was close alongside of him, thumbing his nose at him in a happy gesture of revolt.

They were across the lines when they caught the second ship. Redd forgot danger in that moment of excitement. He saw Vance sideslip in and send a short burst at the Dornier—a burst that was a little wide. Then he thumbed his own guns. Vickers coughed and sputtered. The Dornier sagged—Redd nosed down and turned the heat on. The left prop sheared off and the big ship spun into a weird dance.

Only then was Redd conscious of the

Messerschmitts screaming down like leaves whipped by a hurricane. Von Goetig was out in force and he would demand vengeance for the destruction of the valuable Dorniers.

Redd found himself flying like a madman, trying to prolong the lives of the kids he had grown to love. He saw one "Gladiator" go down—one of the favored eight! He saw another turn into a torch and a white-faced, screaming kid took to the silk. The horrible scream as the ship fell, haunted Redd.

Now he was above the flight. He could see the faces of the killers in the green Messerschmitts, and the old fear stabbed through his mind. It was suicide to try and beat Von Goetig. It was the end of glory and life and everything.

BUT at the same time he saw something else that made his throat choke up. Vance, in the stolen Gloster, enfled one of the green ships. Redd wanted to scream for the kid to run away, but he couldn't. The kid had a chance to get that ship—Vance deserved a victory if he could get it.

Redd could see the kid's thin, white face framed with the black leather. He could see the kid's padded thumbs hovering over the trips like blackened bones. Now was the time—now!

The blackened bones moved with a jerky movement. White smoke coughed from the guns. Redd half rose in his pit as the thing happened. The wisps of tracer didn't leap out and touch the Messerschmitt. Instead, Vance's Gloster shuddered, the prop seemed to explode.

Redd knew, then, why that Gloster had been on the repair line. The Constantinesco gear had been worn—now it had slipped a cog, was pumping the slugs at the prop instead of through it!

Redd saw a dozen things at once. He

saw Captain Grady leading A-Flight down to help them. Grady had followed, knowing the bombers would be protected or revenged by the Nazis. But Redd saw something else that caused him to curse.

Vance was fighting the stick to hold his ship level and gunning in on Vance's tail was Von Goetig, himself, eager to take the cold meat. No one could stop Von Goetig but Redd himself, and even he would have a hard time making the turn to dive in time to get in a shot and save the kid.

He forgot his own danger. Vance, who had saved him from inglorious death, was going to die unless Redd saved him. Redd saw Vance's Gloster shudder in the hail of Von Goetig's shots. Then Redd kicked the bar, pulled the stick over and ahead and swirled down at a crazy angle.

He went screaming headforemost for the Nazi. He saw Von Goetig's piggy eyes squinting at the rings, his mouth twisted into a snarl of hate. Redd pumped his guns, saw his slugs bore into the Von's wings. He couldn't stop him that way!

Blindly, Redd swerved, cut in between the Boche and the kid in a suicide maneuver. He felt his Gloster buck and twist as the German's prop beat itself off on the tip of his wing. He felt his own ship twist about and saw his prop crash into Von Goetig's wing, ripping it from the fuselage!

Vance was pulling free, nursing his crippled ship toward home. Von Goetig didn't have a chance—was hurled from the cockpit as his ship turned completely over and screamed down. The Hun plummeted through space—and his chute didn't open.

Redd fought his own stick. His prop was gone, his left wing was crushed. He didn't have chance, either, but he felt a curious lack of fear. He had paid up

his debt to the kid, that was all that mattered.

The earth rushed up at him like a mad whirlpool. Objects grew into definite shapes. With a mighty effort he flung himself free and clawed wildly for the rip cord. He saw trees, a field. The silk cracked over his head and the chute harness bit agonizingly into his body. Branches whipped past him, a terrible shock and he could see no more.

WHEN he came to, he was looking up into Captain Grady's beefy face. He jerked a look around. His wrecked ship was not a hundred yards away and he was behind the Nazi Siegfried Line.

"You had no right to come here, captain. Get out—I'm not worth saving. I—I let Crowther get killed. . . ."

"I guessed as much, but that's over. After what I saw, you're worth saving. Get on my wing—let me help you."

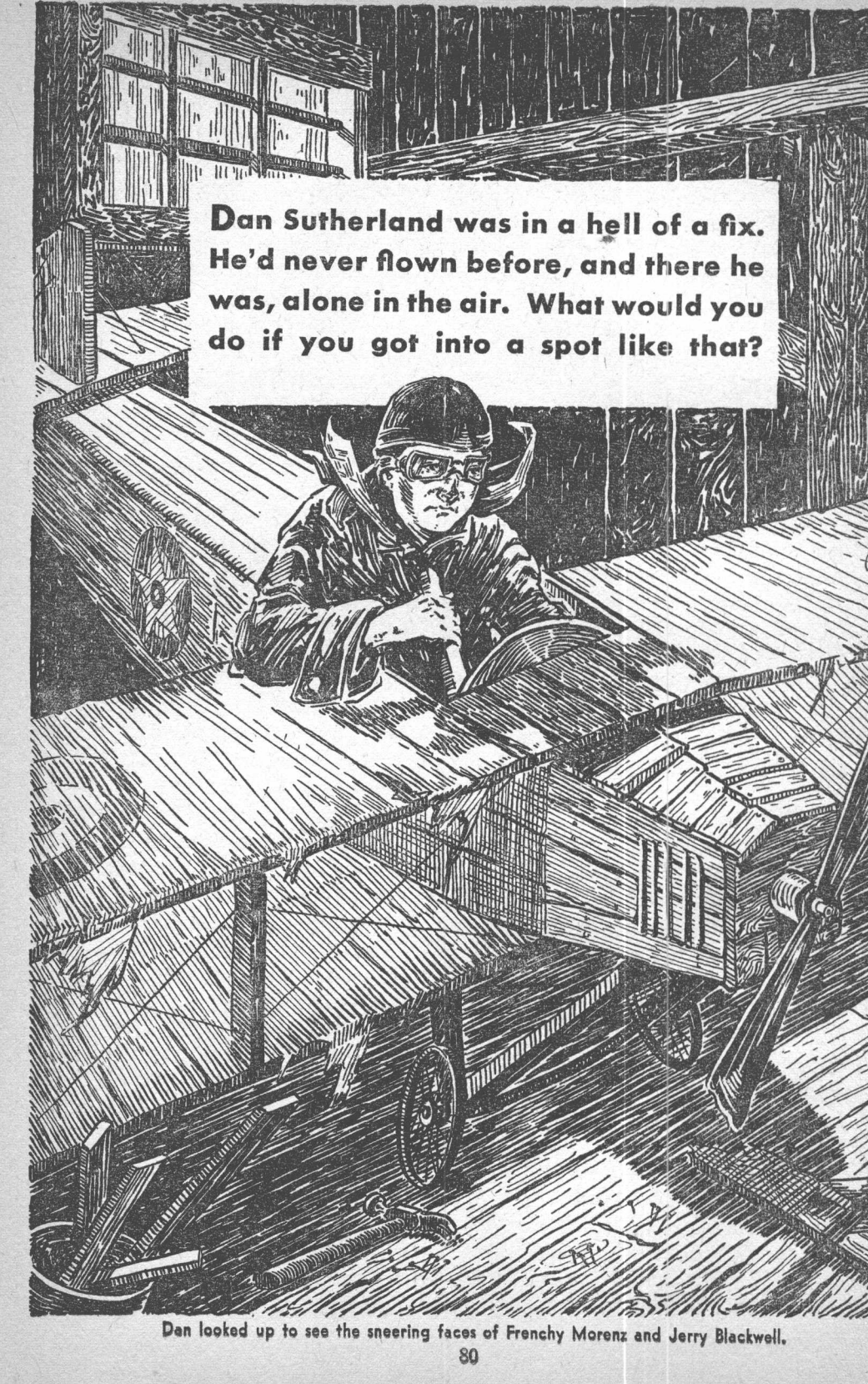
"No, damn you! I disobeyed orders because of Stringer. I got those rookies killed. You just want to take me back so you can courtmartial me."

"Shut up, you fool. I planned all that for your own good—Stringer is a friend of mine, unofficial Military Intelligence. Some of the kids were bound to die. You've built up one of the deadliest flights from the rest of the rookies, and I've put in a recommendation for your promotion to rank of captain. We've got to get home for decoration."

"What decoration?" Redd husked, climbing from the wreck.

"The decoration France wants to bestow upon you and your kids who have shown a lot of vets just how a war should be fought!"

And that's how Lieutenant Redd came to be the leader of the Go-getters, who carved out a name for themselves that will never be forgotten when the tales of brave men are told.



Dan Sutherland was in a hell of a fix. He'd never flown before, and there he was, alone in the air. What would you do if you got into a spot like that?

Dan looked up to see the sneering faces of Frenchy Morenz and Jerry Blackwell.



The Boy Who Couldn't Fly

BY CHARLES S. VERRAL

"SHE'S a Ross Comet, Murph!" Dan Sutherland said. "Look at that wing dihedral and that split undercarriage."

They stood at the top of Frazer's Hill and watched the red monoplane go swooping over the town of Newton in the valley below. The April afternoon sun was strong and Dan shaded his face. His blue eyes sharpened with excitement.

Murph glanced uneasily at the intent face. "They all look alike to me," he said, shortly. "Come on, Dan. I've got a tennis date."

But Dan stayed where he was.

Murph tried again. "Ah, let's go. That crate's beating it."

The red plane wasn't. It had flown

the length of the town and was now coming back, skimming low over Main Street. Dan caught his breath as the Comet roared over the white bank building, barely fifty feet above its roof.

"I'll bet your Dad's loving that," Murph said.

Dan was thinking the same thing. He could visualize the effect the low flying was probably having on his father, the president of the bank. His dad had no sympathy with aviation. It was the one thing Dan could never understand about him.

"You fly?" his father had said the one time Dan spoke of it. There had been something like horror in his voice. "No! That's unthinkable, Daniel!"

His father hadn't said why, but his

eyes had dropped to Dan's crippled right leg encased in its steel brace. And to Dan that glance had been full of meaning.

He'd wanted to cry out, "You don't understand, Dad. That's the very reason I want to fly. I haven't any freedom on the ground. People feel sorry for me. In a plane it'd be different. I'd be free as the wind."

But, Dan had said nothing. And from then on he'd kept his increasing interest in flying hidden from his father.

He knew he could never be a transport pilot. All he'd wanted was to hold an amateur license. And after that to enter aviation in some ground capacity where his crippled leg wouldn't be a handicap.

Dan had worn a brace on that leg as far back as he could remember. His father had told him he'd been hurt in an accident when he was very small, an accident that had killed his mother. But his dad wouldn't talk about it and no one in town volunteered information. The accident had occurred before the Sutherlands had come to Newton.

And now, as Dan gazed at the sleek monoplane scooting past the bank building he thought bitterly. In two years he'd graduate from senior high and then take the position in the bank that his dad had arranged for. All his life would be spent in that white building. There'd be no red monoplane for him—ever.

MURPH'S voice cut in, "Come on, come on," he said, gruffly.

"What's biting you, Murph?" Dan asked, his eyes never leaving the plane. "Look at that, will you!"

The Comet had suddenly zoomed and was now racing up, the sun polishing its wings to glistening vermilion. The roar of its engine became a whine. Dan

judged it had reached six thousand feet when the ship leveled, humped over and dived. The wings flipped around slowly . . . once, twice. Now faster.

"Holy smoke!" Dan said. "A spin. Murph! A spin! He's aiming right at the school!"

The Ross Comet came plummeting down, wings whipping. Dan's long face whitened. Maybe the pilot wasn't stunting. The ship had already dropped two thousand feet without straightening. Maybe the pilot had lost control!

Color welled over Dan's high cheek bones. "Get her out of it!" He wasn't conscious that he was shouting. "Jam the stick forward! Give her opposite rudder and aileron. Hurry!"

As if the pilot had heard his words, the Comet's wings straightened. The machine bulleted down in a power dive. Then, the nose came up. The ship flattened and, with a bellow, careened away.

Dan blew out his breath. The guy was a swell pilot.

"Whew!" Murph gasped.

The monoplane streaked across the residential section, climbing. Dan saw it circle over the grounds of the Blackwell house.

"Maybe he's a friend of Jerry's," Dan said. Jerry Blackwell had been away to flying school the previous summer and had come back flaunting an amateur license.

"Naw," Murph said. "Jerry hasn't got a friend."

But, Dan thought, Jerry had plenty of friends even though *he* wasn't one of them. Jerry was the school's star athlete; he owned a fast roadster; he had lots of money and. . . . A sudden thought flared across Dan's mind. Jerry had boasted that his dad was going to buy him a plane. . . .

Dan turned to Murph. "Could that be Jerry's plane?"

Murph's full moon face flushed. "Well—yeah, that's right, Dan," he said.

"You knew it all the time?"

"I guess I did," Murph said miserably. "Jerry was spreading the word around after school that a Ross pilot was flying his crate down. Jerry had him primed to put on that stunt, looks like."

Dan said, "Oh," and turned away. "You could've told me, Murph."

"I didn't because . . ." Murph stumbled. "Ah, you know."

DAN shoved back a shock of blond hair that had fallen over his face. Distantly he realized that the Comet was now flying across the valley in the direction of the airport.

"It's going to land," Dan said. "I'm going over."

"Aw, nuts," Murph said. "Don't do that. You and Jerry . . ." He left the sentence hanging.

"Dan said, 'I've got nothing against Jerry. And I want to see that plane.'"

Murph scowled. "You got nothing against that guy? How about your smashed model?"

Yes, how about it, Dan thought. That had been his first serious run-in with Jerry. There'd been others since. But that first time . . . It'd happened last summer at a local gas model meet. Dan had worked hard on his plane, had turned out a good job. On its first timed run it had flown far across the airport, landing in tall grass. Jerry Blackwell had gone in pursuit of the model in his yellow roadster. When he'd come back, he'd brought the smashed wreckage of the ship with him. He'd said that he'd found it cracked up. It'd been Murph who'd put the first doubt in Dan's mind. He'd pointed out the buckled fuselage and said, 'Jerry never found her like that.'

But there'd been no proof. And when Jerry's model had won the meet, his father had been so proud he'd given him a flying course. And now—a Ross Comet.

No, Dan hadn't forgotten. But he turned to Murph and said, "Maybe it was an accident."

"Nuts," Murph said. "Well, if you haven't anything against Jerry, he sure doesn't love you."

"Why?" Dan asked. The question had bothered him for months.

"For one thing you're too smart for him up here," Murph said, tapping his head. "I know you don't mean it but you're always showing him up. Not just in aviation but in everything. A grandstander like Jerry can't take it. And . . ."

"What?"

"Oh, nothing," Murph said. "But I wouldn't go down there, Dan. Please."

Dan stood with his legs spread far apart. He thrust his hands deep in the side pockets of his tan corduroy slacks. Then he said, "I'm not afraid of Jerry. And I want to see that plane. I'm going to the airport."

TEN minutes later, Dan was far down the narrow road, out of earshot of Murph's protests. Dull anger had now replaced the thrill the first sight of the Comet had brought. That was envy, wasn't it? Envy for Jerry, for his amateur license, for his new plane. But Jerry really didn't care about aviation, Dan thought. He just saw it as another way to grandstand. While he . . .

The road which curved through the rolling country like a care-free brook was muddy from a recent rain. Water stood in shimmering pools, reflecting the blue and cream of sky and clouds. The air was heavy with the full sweetness of April.

But Dan didn't notice as he hurried awkwardly on. He didn't see the gently flowing farmland lying in reddish brown molds from the steel of the plow. He didn't recognize the cheerful hello of the meadow lark. Nor did he hear the car until its horn blasted out from behind.

Startled, he lurched to the side. The long yellow shape of a powerful roadster swooshed past, doing sixty. It was Jerry Blackwell's car. Jerry was at the wheel and Frenchy Morenz, his sidekick, was with him. The car hurtled on its way, without slowing, without stopping.

Jerry had seen him, all right. You'd think he'd stop and pick a guy up. But the roadster pelted over a rise in the road ahead and was gone.

Dan stopped, shifting his weight to his good leg. Maybe Murph was right. Maybe he was just sticking out his neck. Maybe . . . But that was silly. Why should he miss seeing a Ross Comet close up? Jerry shouldn't mind that.

By the time Dan reached the rise in the road, he was tired. Far ahead, down in the lowland, he saw the air field. Jerry's car was there, empty and the Ross Comet was racing across the airport and angling into the sky.

The distant drone of its engine was drowned by a clanking of machinery from back on the road. Dan turned and saw an old Ford roadster. Gus Petersen's famous chariot.

Gus brought the car to a halt beside Dan and threw open the door. "Airport?" he yelled.

Dan said, "Swell," and climbed aboard, sinking gratefully on the patched cushion.

GUS shot him a lob-sided grin. "Sweet crate Jerry's got, huh?" he said as they got under way.

"I'll say," Dan answered.

"Jerry had the gang all waiting outside the school for the show. Some stunting."

Dan nodded.

Gus ducked down to look through the windshield at the climbing Comet. "They'll be back. The pilot's showing Jerry how the ship handles. . . . Boy, the whole gang's heading for here. This'll start the club right."

"The club?" Dan said.

Gus drew back and looked at Dan out of the corner of his eyes. "Yeah . . . yeah . . ." he said hesitantly. "Jerry's getting up a flying club. . . . I thought he'd asked you"

"No," Dan said. No, Jerry hadn't asked him and probably wouldn't. But now Dan knew why Murph had tried so hard to get him to go home. Murph must've known about the club.

Gus drove on in silence. After awhile he said, "You should be in the club, Dan. You know more about flying than the rest of us. I'll speak to Jerry. He just forgot."

Dan said, "Skip it."

"It'll be a flock of fun, Dan," Gus went on. "Jerry's going to take us up and teach us to fly."

"But he's only got an amateur license!" Dan exclaimed.

"What's wrong with that?"

"Amateur pilots must not carry persons or property for fees, nor instruct students," Dan quoted. "Jerry hasn't had enough experience. It'd be dangerous."

Gus looked disturbed. "I didn't know that. Saaay."

THE Comet was far over town when the Ford came to a stop beside Jerry's roadster at the edge of the flying field. And in a matter of minutes the rest of the high school gang showed up. They came on motorcycles and in old cars, the battered jalopies making

marked contrast with the sleek perfection of the yellow roadster.

Dan liked all the gang. He found himself caught up in their enthusiasm and for awhile he forgot Jerry.

But now the Comet was coming back. Dan stood with the others and waited while the red ship circled the field and came in for a rough landing. The plane touched her wheels, porpoised, touched again, bounced and finally settled.

"Jerry's at the controls," Dan said.

Hank Smith beside him said, "How do you know?"

Dan started to say, "That was a rookie landing." But he caught himself in time and said, "Just a guess."

Jerry was at the controls. Dan saw that as soon as the Comet taxied over. The right cabin door opened and Frenchy and a florid-faced man stepped out. That'd be the Ross pilot.

But Jerry remained in the pilot's seat as the gang of boys crowded around. Dan went with them, staying to the outside.

Although the Comet was a cabin job, Jerry was wearing a white leather helmet. Amber-tinted goggles were over his eyes. His expression was of bored weariness as if he'd just brought the mail in for the thirty-second time. With a slow gesture, he swept the goggles back.

Dan saw that the act wasn't lost on the gang.

Then, Jerry looked up. His face brightened as if, for the first time, he'd seen his friends. He said in an unnatural husky voice, "Oh, hello, fellows."

He stepped from the cabin and leaned against the fuselage, his broad shoulders slouched. He was handsome, in a beefy way, dark-complexioned with heavy black eyebrows, a powerful physique. He said, "Fellows, I want you to meet Ace—Ace Cooper."

The Ross pilot shook his clenched

hands above his head. "Hi, gang," he said.

Jerry went on. "Ace, this is Gus." He pointed to Gus Peterson. "This is Hank . . . and Tom. . . ." He went around the half circle. When he reached Dan, his eyes stopped momentarily and then swept on. He didn't say, "This is Dan."

Dan moved away, embarrassed and angry. But he hadn't come to meet the pilot. He just wanted to see the plane.

He walked slowly around the Comet, taking it all in from spinner cap to the trailing edge of the balanced rudder. He touched the taut fabric almost with reverence. The ship was a honey.

Later, when the gang had broken up and Dan, in his detachment, had lost track of time, he heard Gus Petersen's voice. He had taken Jerry aside and was talking to him. Dan caught his breath. Surely Gus wasn't. . . . But he was. Dan heard enough of his low-pitched words.

Then came Jerry's reply, loud and clear. "Join the club? No! That cripple can't fly!"

Dan stepped back, his ears ringing. Then, he turned abruptly and went past the suddenly hushed boys, almost without seeing them. He heard Frenchy snicker. He stumbled as he reached the road for his eyes were hot. He didn't look back as he headed for home.

"That cripple can't fly!" But Jerry didn't realize. Jerry didn't know. He *could* fly. He'd "flown" the Night Hawk for hours and hours.

And he'd "fly" her again as soon as he could get to her hangar.

HALF an hour later, Dan was hurrying down the driveway of his home. He went past the rambling brick house to the yard beyond. Belle, the colored cook, was at work at the kitchen win-

dow. She called out, "Aftahnoon, Mistah Daniel." But Dan needed more than Belle's smiling black face. He reached the barn and went inside. He passed the old cutter, thick with dust and cobwebs. He gripped a rung of the ladder which led to the hay loft and clumsily pulled himself up. Near the top, just under the trap door, was the sign he'd crudely lettered years ago: PRIVATE—THIS MEANS YOU.

He pushed open the trap door and scrambled through. He hadn't been up in the loft for a long time—the place where he'd spent most of his days as a kid.

He stood there beside the open trap door. He looked across the loft with its peaked roof and rough gray beams. In the sunlight streaming through the small window he saw the Night Hawk, dusty and forsaken.

Its wing was sagging. The covering had fallen away from the left elevator. Cobwebs clung to the fuselage.

Could this misshapen thing be the splendid Night Hawk? Could this be the ship he'd so proudly built with his own two hands out of scrap lumber and odds and ends?

Then, into his mind came a picture of Jerry's Comet, trim of line, powerful and sure. And Dan saw the Night Hawk as she actually was, a crude dilapidated plaything.

He leaned back against the wall. There, before him was the ship he'd hurried home to fly.

It had been built five years ago, fashioned with enthusiasm, before he'd attained carpentry skill. Its high wing held extraordinary curves. The framework of the fuselage was covered with strips torn from bed sheets. The undercarriage owed its existence to the remains of a tricycle.

Yet, the Night Hawk had ailerons and elevators that worked when the

stick in the cockpit was moved. A rudder that wagged when the pedals were shifted. It had an under-sized propeller with blades cut from sheets of tin and attached to an old electric fan—a propeller that revolved when a switch in the cockpit was snapped.

Dan had spent hours in that cockpit, sitting on a cutdown kitchen chair, with his hand on the control stick and his feet jammed against the rudder pedals. The instrument board was packed with round pieces of cardboard, each in its proper place, each pencilled to represent the dial of a particular instrument. The altimeter . . . R. P. M. . . . Oil pressure . . . Air speed indicator . . . and the rest. The throttle was there. The switches.

The Night Hawk had started as a toy and become much more. Dan had studied every available book he could get on flying—books on meteorology, on the theory of flight, on navigation and aerobatics. And sitting in the Night Hawk, with the cardboard discs becoming real instruments, with the controls working and the tin propeller swishing over, Dan had put himself through a strenuous series of flying lessons—translating the printed word into the movement of rudder and aileron and the flickering of instrument needles—drilling himself patiently until he knew every maneuver, every reaction.

That had been years ago. As he'd grown older he'd felt self-conscious about the crude machine. He'd transferred his books to his room and continued his secret studies there—secret because of his father's disapproval of aviation.

And as Dan stood alone in the quiet of the loft, with his gaze still on the Night Hawk, he remembered those long-ago flights—and he remembered Jerry's stinging words.

But now—now the crude ship was

dissolving before his eyes. And in its place the real Night Hawk was forming. A Night Hawk sheathed in shining dural; her high wing wide and firm; her fuselage streamlined. She was straight and true and splendid—the splendid ship she'd always been. The ship that had carried him through fog and storms, across oceans and deserts. The Night Hawk was there—waiting for him.

DAN took a step forward. His eyes were bright. And, barely conscious of what he was doing, he reverted to the old game he used to play. It wasn't hard to go back. It wasn't kiddish. It was real and fine.

He said, "Hey, Sam. Run the Night Hawk out. I'm taking off."

He went to a box nailed to the wall, took an old flying helmet from it, shook off the dust and put it on his head. Goggles were slipped over his eyes. He hurried toward the Night Hawk.

"A 'bad night you say, Sam? . . . That fog won't worry me. I've got to get the mail through."

He stepped into the cockpit and sat down on the chair. He fastened the safety belt around his middle. He gripped the stick with his right hand and inserted his feet on the rudder pedals. Carefully now, he ran his eyes over the instrument panel, checking everything, moving the controls. The ailerons and elevators and rudder moved stiffly, their rusted hinges protesting.

Dan pushed the inertia starter. The hum of the electric fan sounded. The tin propeller blades turned over slowly, shakily. He worked the throttle, listening to the roar of the motor that had now become a powerful radial.

Then, he stuck his head over the cowling and yelled, "Be seein' yuh, Sam." He threw off the brakes.

It was night. The runway which headed into the wind was illuminated. Dan guided the Night Hawk to it and threw the throttle wide.

The Night Hawk thundered down the concrete strip, past the blurred rows of red and green lights. The tail came up. The airspeed needle stood at seventy. Dan eased back on the stick and the Night Hawk arrowed up into the darkness.

At three thousand feet he leveled off. He was flying now. In his imagination . . . yes. But flying. Look, down there . . . those lights . . . a town . . . Newton . . . the main street . . . the movie theater . . . the neon sign in front of Joe's Barbecue.

And Jerry had said, "... can't fly."

But Jerry hadn't known about the Night Hawk—the Night Hawk that could fly as well as the Comet. It had been in tight spins just as the Ross ship had that afternoon and come out of them.

And, still in the powerful grip of his imagination, Dan pulled the Night Hawk up, up on her nose until she stalled, until she fell off on one wing and plummeted earthward. Then, he kicked the rudder, threw the stick over and forced his ship into a spin.

The Night Hawk shrieked down, wings whirling. Dan rode the cockpit, feeling the dizziness of the spin. But he knew what to do. Use your head. Keep cool. Above all don't let panic get you. Now, stick forward . . . Full opposite rudder and aileron . . . See, she's coming out. She's in a straight dive . . . Now, neutralize the controls and pull the stick back.

The Night Hawk leveled and went screaming on her way. Dan leaned over the coaming and patted the side of the fuselage. "Nice going, Night Hawk," he said.

Then, clear and unmistakable, he heard a human sound—a snicker. He looked up. And his imaginary world collapsed.

Standing near the trap door was Frenchy Morenz and—Jerry Blackwell!

JERRY said, "Nifty ship."

Frenchy snickered.

Dan's face whitened. He fumbled at the catch of his safety belt. He tried to speak and found his throat dry. How had they ever come up here? Belle must've told them where he was.

He said finally. "What do you want?"

Jerry swaggered over. A smirk was on his big face. He looked down at the Night Hawk. "Isn't she a honey, Frenchy?" he said.

Frenchy was laughing. He peered into the cockpit. "Look, Jerry," he said. "Look here. He's even strapped in."

Jerry roared with mirth. "You oughta be wearing a chute," he said to Dan. "I'll report you to the Department of Commerce."

Dan sat where he was. His face had gone from white to brick red. "What do you want, Jerry?" he said again.

The laughter left Jerry's face. He moved closer to Dan, stood over him, his broad shoulders squared. "I came to say something to you, wise guy," he said. "I've heard what you said about me not having enough experience to give instruction. The fellows won't go up with me now. You've wrecked my club."

"I didn't mean to break up the club," Dan said. "It's against the law for an amateur pilot to instruct. I just told Gus for his own safety. . ."

"And for *your* safety, you'd better keep your trap shut!" A gleam came into Jerry's eyes as he looked at the

Night Hawk. "I don't think your word will mean much now."

"I betcha he'd die of fright if he ever got his feet off the ground," Frenchy said.

Jerry was glaring at Dan. "I've taken enough of your lip. You've tried to show me up once too often. . . You stay here and play with your toys, and leave *real* flying to me. . . Come on, Frenchy."

Jerry turned and went down through the trap door. Frenchy followed.

Dan stayed where he was. He heard the two boys leave the barn.

No one had ever known about the Night Hawk . . . not even Murph or Dan's father. But now Jerry knew and Frenchy. What would they do?

DAN went to school the next morning prepared to face ridicule. He was sure that Jerry had spread the secret of the Night Hawk. He hoped that he could take it with a wisecrack and a grin. But nothing happened.

And as the morning wore on, Dan waited in suspense. He knew Jerry wouldn't let such an opportunity pass. Something would happen.

And at noon, while Dan was in the cafeteria, something did.

It was the day the weekly school paper was issued—a single multi-graphed sheet. Dan heard the burst of laughter even before he opened his paper. Then—he knew.

There, spread right across the page in big letters for everybody to see was: **EXTRA! EXTRA! DESPERATE DAN SUTHERLAND REVEALED AS FAMOUS HOT AIR ACE.** Underneath was: **Newton's Aeronautical Genius Unmasked.**

Practically the whole sheet was given over to a reporter's fanciful interview with Desperate Dan Sutherland. It told with cruel exaggeration about the

Night Hawk. There was a cartoon of a ramshackled airplane with a caricature of Dan in the cockpit.

Dan tried to keep a grip on himself but he wanted to get up and run. The fellows were all shouting at him, calling him Desperate Dan. In an hour the name had swept the school.

Dan tried to grin, tried to wisecrack. But it was tough going. The afternoon seemed never-ending.

Murph walked home with Dan. "Some day I'm going to blacken Jerry's eyes," he said.

"I can take it, Murph," Dan said. "Don't worry."

"You were swell," Murph said. "They won't keep it up if they think it's rolling off your back."

But they did keep it up—the next day and the next. Then, on the third day, the kidding suddenly dropped off.

Dan caught Jerry talking quietly to Frenchy and some of the gang. He wondered if they were up to something else.

After school as Dan came down the steps he saw Jerry sitting in his roadster. Jerry said, "Hi, Dan. How about a lift?"

Dan said, "Thanks. I think I'll walk."

"Aw, don't be like that," Jerry said. "I'm sorry about that kidding."

Dan looked at him. "You are?"

"Sure," Jerry said. "Come on. Hop in."

Dan thought, "Jerry isn't fooling me. He's up to something. But I might as well bluff it through." He got in the car.

Jerry put the roadster in gear and rolled it down the drive. "Let's be friends, Dan," he said. "I'm driving out to the airport. Want to come?"

Dan said, "Just drop me off at home."

Jerry laughed. "Still afraid, huh?"

"I've never been afraid of you," Dan said. "I'll go."

WHEN they got to the air field Dan saw a bunch of cars. And Jerry's gang was grouped around the Comet.

Jerry pulled the roadster to a stop and got out. "I'm taking Desperate Dan up for his first hop," he said.

Dan started. "No, you're not."

Jerry spread his hands expressively. "See, gang. I told you he was yellow. He's hot stuff in that toy ship but when it comes to the real thing. . ."

Frenchy said, "Yeah. Didn't I say he was afraid to really fly," and snickered.

It was that snicker that got Dan. He looked around at the crowd. The fellows were watching him, waiting for his answer.

Dan took a deep breath. "All right, Jerry," he said quietly. "I'll go."

Jerry's smirk widened. "Now you're talking . . . Okay, Frenchy, drag out the chutes. Put one on Desperate Dan."

Dan had climbed from the car. "Chutes? What'd we need chutes for?"

Jerry looked amazed. "Don't tell me that an expert like you doesn't know that parachutes must be worn for acrobatic maneuvers," he said and winked at the gang.

"You mean you're going to stunt?" Dan said. "That's dangerous. You haven't had enough experience." Right after the words left his lips Dan knew that it was exactly the wrong thing to say.

Jerry's face darkened. "I'll show you if I've had enough experience. Unless you're scared and want to back out."

Dan said, "I told you I'd go, didn't I?"

BUT when he was climbing into the Comet's upholstered cabin, Dan

thought, "You're a fool. Jerry's going to grandstand before the gang and try to frighten the daylight out of me. He's liable to crash."

But it was too late to change his mind now. Jerry was in the pilot's seat beside him.

Dan shifted the webbed chute harness that criss-crossed his body and tried to look composed. But he was far from that.

Jerry had worked the starter. The engine caught. The prop whirled. He jazzed the throttle, then eased it back. "Fasten your belt," he said curtly. "You'll need it."

Dan obeyed. He felt the Comet vibrating under him. The drumming of the engine was in his ears. His uneasiness increased.

Jerry released the wheel brakes. As the ship moved forward, Dan saw a car turn in from the road and come to a fast stop. Two figures jumped from it and started running toward the plane. The first was Murph. And that tall man behind him was—Dan's father!

Dan gasped. How had his dad ever come out here? Murph must've heard about Jerry's scheme and told Dan's father. And now they were trying to stop the take-off.

But there was no stopping. Jerry had seen them and didn't wait. Instead, he rammed the throttle wide. The Comet lunged ahead.

Every muscle in Dan's body was taut as the monoplane's speed increased. He tried to relax, tried to reason with himself. He had to see this thing through now—no matter what Jerry did.

He saw the stick go forward. He felt the tail lift. The airspeed needle was crawling up. The sea of grass whipped past. Then, Jerry brought the stick slowly back.

There were no bumps. Just even sailing. Dan realized they'd taken off.

The Comet climbed slowly and gradually Dan began to feel better. He looked down and thrilled at the sight of the earth dropping away. He was actually flying. This was what he'd imagined it'd be.

Jerry held the Comet's cowed nose high. The altimeter showed one thousand as the minutes passed. Two thousand. Three.

Jerry levelled off and looked at Dan. "How do you like it?" he asked. The soundproof packing around the firewall shut out the noise of the engine.

Dan grinned. "It's swell," he said and meant it.

Jerry's eyes narrowed. "Well, get a load of this."

He kicked the rudder, threw the stick and whipped the ship around in a steep bank. Dan felt himself thrown violently against his belt. Before he could catch his breath, the Comet dropped its nose and dived, engine howling.

Dan clutched at the edge of his seat. The monoplane was standing on her nose. The earth was rushing up.

Dan hung on tightly. The thrill he'd felt at the take-off was gone. He was afraid. Not afraid of flying but afraid of Jerry's overconfidence. He'd try anything just to show off. He might try something that he couldn't finish.

The Comet was plummeting for the airport. Dan saw the antlike figures down there. They grew larger by the second. One of them was his dad. What was he thinking? What would he do when they landed? If they landed. . . .

Dan shot an agonized glance at Jerry. Had he already lost control?

Jerry looked back and laughed. He yelled, "We're going to crash!"

Dan knew he was kidding, that he was just trying to frighten him. But unless he pulled out of the dive pretty soon they would crash.

And they almost did. Jerry held the plunging ship in its wild descent until it was within four hundred feet of the field. Then, he pulled the stick back. The Comet flattened out and raced on across the country.

DAN leaned back weakly. They'd come out of that okay. But would they be as lucky the next time? Jerry's handling of the ship was clumsy. He wasn't good enough to stunt.

Dan wanted to reason with him. But he knew that would only spur Jerry on.

The Comet zoomed again. Jerry shouted, "That's just a taste of what you're going to get, wise guy."

Then, without warning, he kicked the ship over in a barrel roll.

Dan's head was snapped back. He hung tightly to his safety belt. The plane whirled completely over once. It had started on another revolution before Jerry could check it.

He fought the controls. The Comet staggered, fell off ponderously on one wing, side slipped. Dan saw a trace of fear creep across Jerry's face.

But again he was lucky. The ship's nose fell. She dived and Jerry tugged her into level flight.

That'd be all, Dan thought. Jerry's had enough.

But that wasn't all. Jerry's confidence had come back. He turned to Dan and laughed. "Now I'll show you what a loop looks like," he said.

A loop! Dan's body went numb. He said impulsively, "Don't try it, Jerry. You almost lost control in that roll. Don't try a loop. . . . We've had enough. Let's land."

He wasn't calling quits. He was using his head. For Jerry to try any more stunting was suicide.

But Jerry was forcing the Comet into a climb. He said. "I knew you were yellow. I'm not through with you yet."

Dan didn't say anything more. He looked down at the earth so far below. The countryside was a checkered map. There was the airport, the size of a postage stamp. He thought of his dad down there. His eyes would be upturned.

The monoplane was at six thousand feet now. Jerry said, "Get ready. . . . Here we go."

The ship dived, dived until the wind was screaming. Dan dug his nails into the palms of his hands. He tried to close his eyes. He couldn't.

The stick was coming back. The Comet was zooming up, up, her nose high to the blue heavens. Dan saw the horizon whip past, the sky flash away, the earth appear under his head.

They were upside down, at the top of the loop.

But the Comet didn't complete the loop. She wallowed at the top, inverted. She lost flying speed. She seemed to hang for an indefinite space of time. Then, with a scream, she slipped off on her right wing.

She plunged heavily, crazily. Jerry clung to the stick, holding it back. In that awful moment Dan saw a spasm of fear sweep across Jerry's face.

Then the wings whipped over—and the monoplane went into a tight spin!

The color drained from Dan's cheeks. The earth was whirling like a top. Jerry had both hands on the stick. His face had gone gray. His eyes were wide.

The altimeter was dropping fast. The earth tore up.

Dan shouted, "Push the stick forward! Forward!"

But Jerry was past hearing. He was frantically tugging at the stick, working the rudder pedals. The ship held to its tight spin.

If Jerry didn't get control, they'd crash. This was no kidding now.

Then, Dan saw Jerry's hands leave the controls, snatch at the buckle of his safety belt. The belt parted. Jerry grabbed the handle of the left cabin door. He forced it open.

"Jump!" he yelled at Dan. "We're goners! Jump!"

He didn't wait to see if Dan heard. He dived through the open door.

And Dan was left alone.

DAN'S heart stopped. Jerry had jumped!

Quickly, Dan unfastened his belt, gripped the handle of the door beside him. His eyes whipped from the altimeter to the ground tearing up. No! He could jump. There wasn't time. He'd never make it. He'd never get out of that door with his crooked leg.

But what would he do? The ship was now plummeting down at top speed. He fought to hold himself in the seat.

There was only one thing to do—and Dan did it.

He forced himself across to the empty pilot's seat, tugged the belt around his stomach. His feet found the rudder pedals. His hands grabbed the control stick.

The altimeter! When he'd last seen it there'd been twelve thousand feet. Now it showed nine hundred!

He forced his panic back. You know how to fly. You've flown the Night Hawk. You've brought her out of spins. This is the Night Hawk!

The Night Hawk. Yes. That was it. He was in the barn loft. He was seated on that old kitchen chair. The instruments on the board ahead were cardboard discs. The propeller was made of tin.

Remember? Stick forward. Close the throttle. That's right. Full opposite rudder. Gently.

Eight hundred feet . . . seven. . .

Don't look at the altimeter. Don't look at the closeness of the whirling world down there. Don't think of your dad watching. You're going to crash unless you keep cool.

Dan forced himself to obey the commands of his mind. His hands and feet reacted. The noise of the engine had died but the screaming of the wind had increased. The spin was slowing. She was coming out. But was there time?

Look! The altimeter. Six hundred feet!

The Comet's wings revolved again . . . once more—then held steady.

Dan was out of the spin!

But he was still diving! Five hundred feet from the ground.

Use your head now. Seconds count. Pull the stick back slowly. Not too fast. A sharp movement might fold the wings.

The nose is coming up . . . But you're almost on the ground. Back some more.

Dan caught a blurred impression of the airport with its cars, with people standing in a knot. And far away he saw a white billowing shape. Jerry in his chute, landing safely.

The Comet's cowed nose came higher. Then, she was level. She was out of the dive—less than a hundred feet up.

Dan clung to the controls. He was past thinking; past fear. Now could he land her? Why not? Hadn't he brought the Night Hawk down time after time?

A feeling of triumph began to creep over him, replacing the panic. He realized suddenly that he was really flying.

Cautiously he nudged the monoplane around in a flat turn until he was heading back for the airport. The Comet was gliding lower. Keep your eyes to the right of the nose. Judge distance.

You're almost at the landing field. Trees ahead—a fence. Over the boundary of the airport. Lower now. Forty feet . . . thirty . . . twenty. Stick back slowly. Flatten out.

You're almost down. Stick back more. Get the tail down. Faster . . . faster. . . . You're almost on the ground.

Suddenly Dan felt a jarring shock. The ship bounced, hit hard again. It was down and rolling across the uneven field.

He had landed!

THEN, the gang of boys were around Dan. They pulled him from the cabin, thumped him on the back. They all seemed to talk at once.

"I saw it! I saw it! That guy Jerry bailed out and left ya cold," said one.

"Jerry Blackwell—the hero of the air. Huh! A yellow bum I call him!" snorted a thin blond youth.

"Let's run him outa town!" they chorused.

Jerry had gathered up his chute and was walking over to his car. He was trying to act as though nothing had happened; but he would glance over his shoulder at Dan and the gang every time he would take three or four steps.

"Get the lousy bum!" someone shouted.

At these words Jerry broke into a run for his car. He clambered in and was away in a cloud of dust before any of the gang had taken more than a step.

"I always knew he was yellow," came the muffled remark from one of the boys.

Dan saw Murph and then he saw his dad. He tried to speak to his father but he couldn't get the words out. His dad had a queer expression on his face. He took Dan roughly by the arm.

Dan said, "I couldn't help but go up, Dad. Don't be mad."

His dad looked at him in silence. Then he put his arm around him. His voice was husky when he spoke. "I'm not mad, son. . . . I'm proud. . . . I saw you get out of that spin."

Later when they were in the car his father said, "I read the account in the school paper. I went to see the Night Hawk. . . . I didn't know you were that interested in flying."

"But Dad I told you. And you said . . ."

His father looked straight ahead. "Dan," he said. "You were hurt in an accident. And your mother was killed. It was an airplane accident. I was piloting."

"You. . . ." Dan stopped.

"Yes. I swore I'd have nothing to do with aviation after that. . . . But . . . you've shown that it's in your blood. What was it you wanted to do?"

"Get an amateur license," Dan said. "And then some ground job."

His dad said, "I'm going to give you the best aviation training there is. And then, if you like, I'll buy you a plane of your own—a real Night Hawk!"

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AMAZING STORIES



There was only one thing to do, and I did it. I rammed my prop into Carlyle's wing-tip. I might as well die that way as be shot.

By EDWARD CHURCHILL

MERNA KAY stood beside me, staring up into the sky. Her hands twisted and tore at a handkerchief which she held just under her pretty chin. She pointed a slim finger at a biplane spiraling for altitude.

"Joe is going to marry me tomorrow," she said in a dry parchment like voice. "Yet for some unknown reason, I have a feeling something terrible will happen—I always get that feeling when Joe does a spin for a cheap little blood-and-thunder movie."

Merna gave the handkerchief a vicious twist as she bit her lip. I was proud that my brother, Joe Varden, had picked such a beautiful girl for a wife. And I would be lucky to have her for a sister-in-law. Joe's letter telling me to

come to Tyson Airport and help him with stunt work for the movies said he was planning to get married. But tomorrow! That was rather sudden!

I looked at the dust-shrouded, weed-infested backlot known as Tyson Airport. It was not far from Los Angeles and in the San Fernando valley; so movie producers found it ideal for stunt filming. In one corner of the field stood a large sound truck, its generator humming a business like sound.

Technicians dressed in white coveralls hustled about dragging wires and mikes to strategic locations. In the center of the field stood a slim well built fellow clad in tan whipcord riding breeches and a green shirt. He held a large, white flag—the flag which would signal



WHEN Joe Varden crashed, Tim Varden knew it wasn't accident. But when he tried to do something about it, real trouble broke . . . !

to the camera men to start grinding.

I looked at Merna. She had tawny hair, blowing in the light wind—tan burnt into her perfect features by a real sun—teeth white against that tan, the biggest blue eyes you ever saw, and a way of carrying herself—well, she looked like a racing job, that's all.

Merna turned to me and said, "Joe's talked of nothing but you for the last three months. You boys went to town together, didn't you? He's told me everything—"

"Everything?" I asked, sort of embarrassed. She nodded.

"This is his first real job," she said.

"Look! The white flag! He's starting his wind-up!"

I've seen a lot of spins, so I looked at her instead of Joe's ship as it made its first few turns. A slim hand ripped the handkerchief to bits. Then I saw a spasm of fear tighten her features, and I got a load of Joe's biplane.

"Say—" I began, "he's sure going to come out tree high if—"

If you've ever seen those things happen, as I have, you know that he was in before I could finish my sentence. I felt my throat choke up and my heart jump a couple of beats as I started forward, just as a cloud of dust sprayed out and the sickening crush of metal, wood and wire hit my ears. He'd been a little flat toward the end. Maybe—

Merna screamed. I pushed an extra onto his ear. He was astride a military motorcycle. I hopped the thing, kicked the starter—and ripped through the gears. I looked around quick. Merna was bouncing along in the side car, her hands biting into the rim of the little tub.

"Guts!" I mumbled to myself, the wind whipping the words off my lips.

We got there first. Joe was pitched forward in the buckled fuselage. I got him under the chin and moved his head back. He didn't look so bad until I glanced down at his lower half. The motor had come back. I almost retched. Merna came around on the other side of the cockpit. I hoped she wouldn't look down.

Joe was still breathing. His eyes opened.

"Hello, Bud," he said. His voice was weak with pain. "Knew you'd come." He sort of gasped and his face twisted with agony. "Played a dirty trick on you. I was in a jam."

The wind whistled from his lungs.

"Why don't you do something?" There was anger in Merna's voice. I couldn't tell her that if I moved him an inch he was washed up. And I could see he was trying to tell me something.

"He got me—" I held his head up. "Wire—"

His head lolled to one side. I watched the life going out of him, cursing myself silently. Mad because I hadn't had more time with him. Mad because he couldn't stay with me. Mad because if

the ship had spun just a little flatter, maybe—

The rest of the people on the field came up. The director, his assistant, a couple of business managers, some actors and camera men. They started trying to get Joe out.

On their heels came an ambulance.

"I'll handle this," I said. "First of all, get Miss Kay out of here."

THAT night I held a kind of wake with myself, playing Joe was with me, not on a slab at the undertaker's. I had quite a talk with him. I was trying to figure out what he meant by "wire." Who in hell was I supposed to send a wire to? We didn't have any relatives. Pretty soon dawn came into the window of the small room I'd taken in a cheap Hollywood hotel. I went out, threw a couple of slugs of java into me, got Joe's car and streaked out to Tyson Airport. To the hangar.

I let myself in with a key Merna'd given me. It was a pretty shabby place. There was an office, its windows dusty and grimy, to one side. Joe had a camera ship, a biplane, with a swivel ring for a mount just behind the pilot's cockpit. I looked it over. It was hour-worn. Not much better than a clunk.

Over on the other side of the hangar was what was left of the crate that had spun Joe in. I got to looking at it and thinking. Joe had five thousand hours, mostly flying circus hours, which meant continual stunting. The ship looked like it must've been a fair job, although now the lowers were all broken up, the struts were buckled, the motor was driven back into the fuselage, and the fuselage itself had broken in half under the linen back of the pilot's cockpit.

I kept thinking about that word, "wire."

Then it hit me. Joe hadn't been

talking about a telegram. He'd been referring to control wires. Or some kind of wires on the ship.

I went to work. I dragged the fuselage out straight. I began checking the wires. I worked for about an hour, I guess. Then I had it.

After I'd straightened the fuselage I discovered that the control wires from stick and rudder bar to the horns on the tail were at least a foot too long. That meant that Joe had had no controls coming down—that he was murdered—that somebody had put in overlong wires. But how had he taken off and climbed to three thousand? The wires gave me the answer to that, too. They showed signs of being looped and twisted. Then I found a couple of pieces of fine, soft wire wedged between the linen and longeron tubes. Joe had taken off without putting any great pressure on the controls. But going into the spin, or trying to get out of it, he had. The soft, fine wire had snapped.

Sure, it was clever. Diabolically clever.

I pledged to Joe, then and there, that I'd get the man who killed him if I got bumped doing it. I'd see the murderer give a life for a life. I was thinking of Joe and fighting back the emotion that was getting me when the small hangar door swung open. I stood quiet, waiting.

Joe's mechanic came in—a lanky, hatchet-faced man with his eyes too close to his nose. I'd gotten sore at him the night before when he tried to insist that the fuselage and motor should be sold for junk immediately—not carted into the hangar.

"Oh!" he said, startled when he saw me. "What're you doing?"

His eyes pried as he came forward.

"Looking over the wreck," I said, burned that he thought it was any of his business. "You were right, Schaf-

fer. She's junk."

"Told you so."

I didn't like his know-it-all sneer. Something inside me told me not to mention the control wires. I wanted to ask him what Joe had meant when he'd said he was in a jam and somebody'd gotten him. Who "somebody" was. Schaffer logically could have fixed the wires.

So I asked: "How long did you work for Joe?"

"About a week."

"Okay. As soon as Miss Kay comes in, turn in your time."

Schaffer shrugged his shoulders, turned, shifted a cud in his cheek and spat deliberately on the cement floor.

"That's oke with me, too," he said. "You don't need a mechanic no more, anyhow."

He went out. I heard sounds beyond the hangar. Cars driving up. Bustle. I followed him. A couple of bus loads of extras had already arrived. The extras were in Army uniforms. They lounged around. I saw the director and his assistant. I went up to them.

"Mr. Hillman," I said.

THE director turned around and grunted. He looked like he was eyeing a perfect stranger.

"I'm Tim Varden," I said. "Joe's brother. You got away before I could talk to you last night. I did some phoning and lined up a biplane like Joe crashed. How's about me flying over and picking it up? I'll finish your job—"

His smile was sour.

"I've had enough of one-lung outfits," he snapped. He pointed up. I looked off the end of his finger. I saw a biplane coming in. "Here's John now. He'll do it right."

I watched the biplane come in. The pilot, John, handled it cockily. Behind

it came a camera ship. The assistant nudged me.

"Better scram," he said. "Mr. Hillman's busy, lining up his next shot."

Burning, I started toward Joe's hangar. One lung outfit? Hillman was right. The only thing that wasn't shabby was the sign, "Associated Flying Service—Joseph Varden, Manager." But I wasn't licked yet—

I felt a hand on my arm. I looked up. A round-eyed, grizzled fellow was saying:

"I'm Osborne—business manager. Your brother had some money coming—"

"Thanks. Just turn it over to Miss Kay, will you?"

"I have some forms—"

I looked toward the biplane. It was on the line and the cockpit was empty. Osborne handed me a lot of papers. I took them.

"Have Miss Kay fill these out. There'll be insurance, too."

"Sure. Say, Osborne, who's this John fellow?"

He looked at me as if I wasn't quite bright.

"Are you kidding?"

"Let me have it."

"John Carlyle. He's got most of the money around here. Not directly connected, but he does Hillman a lot of good. Sort of interested in making money on the movie lot, even though he don't need it. Owns a couple ships."

"How did Joe get the job with Hillman?"

Osborne shrugged. "This is a cheap picture. Hillman was trying to save a couple of dimes."

"I get it. Thanks."

I hurried away, barged into the hangar. Through the glass partition I could see Merna Kay. She wasn't all I saw. There was a big, broad back toward me. It belonged to a guy who was

sitting on the side of Merna's desk, leaning very close toward her. His voice was low and his whole attitude smacked of a guy who had the inside track—and knew it. I ploughed right into the tete-a-tete.

"Hello, Miss Kay," I said. "Osborne wants us to fill out these papers—"

The broad back swung. I found myself looking at—and measuring—a hefty number. He was about six feet and an inch tall. My height. He had about ten pounds on me. His face was long and narrow, and he had a jutting jaw, but somehow it didn't seem to have any strength. His nose was a bit hooked, as if he'd once broken it. His eyes were black and unfriendly. He had a mop of blond hair, but the impression I got was the mop effect was put on.

"What the—" the lug growled.

"Business," I snapped. "Private business in a private office—"

Merna cut into my sentence.

"This is Mr. Carlyle," she said. "John Carlyle—helping Mr. Hillman with this picture—"

She looked from me to him.

"That's Tim Varden. Joe's brother."

Merna hadn't beaten down the hate that flashed between us. He just wasn't my kind of guy. And vice versa.

"Too bad about Joe," he said. There wasn't any sorrow in his voice. "It was Hillman's fault. Never should have sent a boy to do a man's job—"

I swear my fist was half-way to that jutting jaw before I knew what it was doing. It cracked. About a six-inch blow. Carlyle's features froze in a surprised sort of expression. Then his eyes went glassy. As he doubled up, I caught him. I got my shoulder in his middle, heaved up and carried him out of the hangar like a sack. I heard Hillman screaming:

"Carlyle! Where's Carlyle?"

Hillman was standing by a canvas chair his stooges had placed for him. I eased Carlyle into it.

"Here he is," I said.

I walked back into the hangar.

MERNA was waiting for me. Her face was stiff with anger, disapproval, whatever it was. Even when she glared at me she seemed beautiful.

"That was a silly thing to do," she said.

"Couldn't help it. Why was it silly?"

"He's got a lot of money invested in this picture."

"He's slow with his dukes. Listen, Merna"—her first name just slipped out—"who did Joe mean when he said, 'He got me.'?"

"I don't know."

"Merna," I said, "I don't know who to trust—but I've to talk to somebody who can help me. I found out for sure this morning that Joe was murdered. I'm going to get the rat who did it if it takes forever."

I took her over to the wreck and explained it all to her.

"You got rid of Schaffer, the mechanic," she said.

"I fired him."

"You were smart. I paid him off."

We walked back into the office. She looked down at a yellow envelope on the desk.

"You've been so busy detecting, punching people and firing them I forgot this," she said, as she picked it up and handed it to me. It was a telegram. I ripped it open.

It contained two words—a query. It asked:

"NEED ME?"

It was signed:

"ANGELFACE."

I passed it over to Merna. I was disappointed to note her face had no

particular expression as she handed it back.

"Who is he? How can he answer?" she asked.

"Ralph Huston," I began. I was hoping to see relief on her features at finding out Angelface was a man. I didn't.

"Ralph Huston," I repeated, "United States Aircraft, San Francisco, California. Just answer: 'Yes.'"

"You have nine more words."

"Just 'yes' will be enough for Ralph Huston." Then, in answer to her inquisitive look about this mysterious friend, I continued: "Angleface is red-headed and freckled, and has a grin like a Cheshire cat. He barnstormed with Joe and me for five years and never missed a blonde or a turnbuckle. We call him Angelface because one time he tried to dig a hole in an instrument board with his face and the board won."

ANGELFACE came in by plane that afternoon. The first thing we did was go over the camera ship. That was, after I'd spilled everything I knew. Merna helped us to figure out the swivel ring mount. Joe had it fixed up pretty tricky. You could swing a camera around quite a bit of an arc by using a lever in the front cockpit.

"That's Joe's secret invention," Merna said. "Rear fuselage cameras are either locked in set position or operated by a cameraman. This lets the pilot swing it at will."

I played with it for a while. Then I put Angelface to work fixing a lot of things and seeing that the ship hadn't been tampered with. When I was sure she was all right, I hopped her. She was a real surprise. She had four hundred in the nose and stepped up to one-eighty wide open. She cruised at one-sixty.

After that, Angelface and I went into

Hollywood, trying to dope a few angles.

"Schaffer ought to be on the list of suspects," Joe said.

"He is," I told him. "Merna says Joe was nosing around at something outside his job, which was getting contracts with motion picture studios and flying thrills into their pictures. Somebody got wise to what he was doing. But Schaffer—I can't find a motive."

During the next few days I did plenty of prowling around. I had plenty of time. I began to think my telephone was disconnected. But I learned things—and got one big surprise. Angelface told me:

"Schaffer's joined John Carlyle's mechanical crew on the Hillman picture."

It seems there was a Motion Picture Pilots' Guild. I had to get into it because I found there wasn't the slightest chance of getting work in pictures unless I belonged. I got in, although it cost me plenty. The boys, who were having slim pickings, didn't feel they were adding another hungry mouth when they took me in, but that I was just taking my brother's place. But being a member of the Guild and getting a job flying for fifty bucks a day—a hundred if you stunted—were two different things.

I got to know a couple of swell boys, "Ace Gorman," who had owned a few ships before he'd crashed them stunting, and Link Andrews, another veteran. They both hated Carlyle's guts, and told me how he'd run hooch during prohibition, had double-crossed a couple of partners and had frozen them out, and how he'd gotten plenty from movie business. It seemed he wasn't above cutting a few corners to get it.

"Your brother," Andrews told me, "was the first operator who ever got to first base."

"Carlyle was sore," Gorman added. "He needs all the business he can get.

I don't give a damn if he has a couple valuable planes he can use to chisel the movie business—he's still living beyond the dough he makes. I've been in the game for fifteen years here, and I can get his income to dimes. He's way out beyond it, and riding to a fall."

I MADE the studios, talking to business managers about air pictures I heard were coming up.

"Sorry," was the usual answer. "We've already signed with Carlyle."

Yes, he was a pilot, technical advisor, supplier of equipment and everything else. Finally, one afternoon when I went back to Tyson Airport, I got a surprise.

"Carlyle just called," Merna said. "He wants to see you."

I guess if I hadn't wanted to see his layout I'd have told her to tell him to come and see me. I went over to Municipal Airport, where he was based. He had a hangar as big as a house, full of everything from Fleet trainers to big single-motored transports, and a lot of wartime stuff. He kept me waiting in his outer office. Finally his secretary told me I could go in.

He didn't get up. He just sat there, chewing on a cigar. He said:

"I don't like you, Varden."

"You didn't by any chance call me over here to this great pile of cement, steel, and glass to tell me that, did you?" I burned.

"Your brother chiseled around the studios, and it didn't do him any good," he replied, ignoring my anger. "You've been chiseling, too, and the score's still zero for your side. You haven't worked."

He leaned across his big, glass-topped mahogany desk.

"And you won't work," he added. "Now, you've got one ship. I can use it. It's worth, tops, about fifteen hun-

dred. I'll add five hundred nuisance value to that. Two thousand cash for your ship and the promise that you'll get the hell out of Southern California and stay out."

I headed for the door.

"I'm not getting out of any place," I said. "If anybody's doing any moving, you know where you can go."

I slammed the door so hard the glass rattled.

I hurried back to Tyson, but Merna and Angelface had gone. I tinkered around for a while with a camera I'd rented, studying it. I'd mounted it a couple of times, learning how to operate it and swing it in the air. Then I locked up, went to the hotel. Angelface wasn't there. I got to thinking that we were low on cash, and about Carlyle's offer, and decided I wanted to talk to Merna.

I called her. Her mother answered.

"This is Tim Varden," I told her. "Is Merna at home?"

"No," she replied.

"Where can I reach her?" I asked.

"I wouldn't know. I think she went out with John Carlyle."

The next day I heard about *Born to Fly*. Inspiration Pictures was going to put a million into it. Big names. Big production. Lots of pilots. Lots of planes. I cooled my heels most of the day trying to get in to see the studio's production manager.

I got in just before six o'clock.

"If you want any kind of work or want to rent equipment for the picture," the manager told me, "you'll have to contact John Carlyle."

NEXT morning, Angelface and I got out to the field about nine o'clock. I was figuring on mounting the camera and getting in some more time learning how to fly it. We'd no sooner unlocked the door to the hangar and gone inside

than a mob moved in on us. It didn't occur to me at the moment that they'd been waiting.

There were four big fellows, with flat feet.

"What's this?" I asked, as they moved toward me. I didn't like the way they held their hands ready, as if about to reach for something.

"A pinch," said one. "You're Tim Varden?"

I nodded, a chill running through me. He pointed to the camera ship.

"Yours?" he asked.

"Yeah," I said.

"What were you running across the border last night?"

I tried to laugh. It cracked on my lips.

"What's the rib?" I demanded.

The leader flashed a badge.

"I'm United States Marshal Conroy," he said. He pointed to the others. "Marshal Foults, Customs Inspectors Hayden and Boyd."

He told them:

"Work over the ship."

He frisked Angelface and me.

"I still don't get it," I said.

"This ship flew over the border east of Calexico-Mexicali twice last night, outdistancing a patrol, Varden."

"How do you know it's this ship?" I demanded. "It hasn't been out of the hangar for two days."

"That's funny," said Foults, touching a cylinder. "She's hot."

The fellow called Hayden, who had been digging down into the fuselage behind the camera mount, came up with a small can. He opened it, sniffed it, passed it around. I got a whiff of the acrid black stuff.

"Gum opium," he said.

Conroy asked me:

"Didn't that tramp steamer you came on stop a couple of days at Ensenada?"

That one jerked me up. I'd told

only Merna about the engine breaking down, how I came to Los Angeles on a tramp steamer, and about how I'd rented a car to see the inland country.

"No answer? Well, you'll talk downtown," Conroy told me.

"This," I snapped, "is a lousy frame-up—"

My eyes caught a figure back in the shadows. It was Merna.

"I tell you, it's a frame-up. I suppose you think I—"

Conroy snapped cuffs on me. He nodded to Foults.

"Bring along the mechanic, too," he ordered.

I looked for Merna. She was gone.

THEY didn't have anything on Angel-face, so they had to let him go. But they worked me over and worked me over, asked me where I'd gone in the car from Ensenada, who I'd seen. They didn't learn anything because I didn't know anything. I kept thinking of Merna. I felt all gone in the middle, like somebody'd kicked me in the stomach. But the whole thing was beginning to shape up a little bit. And it was shaping more and more like Carlyle. It began to look as if Joe had started a one-man war against Carlyle—bucking him in the flying business. Then, maybe, he'd gotten something on Carlyle. Carlyle fixed the control wires, or had the horse-faced Schaffer fix it. Joe was killed.

Then I moved in. I bucked Carlyle. Maybe Schaffer had told him I was working on the wrecked fuselage trying to get an answer. So he tried to buy me out, get rid of me. I wouldn't listen. So I'd been framed.

I didn't doubt for a minute that my ship had been over Mexicali. Schaffer still probably had a key to the lock on the hangar door. But how could I prove all this? That was a tough job if a guy

was free. And here I was, in the hands of the Feds, with plenty of evidence pinned on me. Alibi? Not a chance. I'd been out driving alone in Joe's car—trying to figure things out.

The charge was suspicion of smuggling. The commissioner set bail at \$10,000. I went through the identification routine and the tank, and was tossed into a cell. There, I got to thinking what Gorman had told me. "Carlyle spends more than he makes." Where did he get it? And if my brother had had something on him, what was it?

I WAS surprised when they came to me and told me I was free on bail. I was still more surprised to find Angel-face and Merna waiting for me when I came out.

"How did you do it?" I asked Angel-face.

He thumbed at Merna.

"She did it," he said.

She made me a mock curtsy.

"I have an aunt," she said, "who owns some property. I got her to pledge her property as security to a bondsman."

So she'd helped me! That made me feel better. But not too good.

"That was white of you," I said. But there was no gratitude in my voice. I couldn't put it there.

"I thought you'd appreciate—"

She was pretty with that color in her cheeks.

"It was swell of you—but you might as well have it, Merna. You do this—but why did you tip Carlyle that I'd laid over in Ensenada? You did, didn't you?"

The color drained from her face.

"Why—I might have mentioned it—I guess I did—he was pumping me—"

"You didn't deliberately tell?"

"Of course not. I've had a feeling from the first about him. I've been

leading him on, hoping I could learn something—wait!”

We were walking toward Merna's car. We stopped.

“I went out with him night before last—the night you tried to get me at home. Before he pumped me, he had a date with me for last night—but later he broke it!”

“To fly my ship to Mexicali!” I exploded. “Listen—now we're getting somewhere. And you're a peach, Merna. I'm sorry I thought—”

Her hand closed over mine. “Forget it, Tim.”

That touch of her hand changed everything for me. We got into the car. I was filled with a lot of fresh ambition as Merna turned away from the curb-ing.

“It must be Carlyle,” I said. I turned to Angelface.

“If you were going to frame somebody,” I asked, “would you dream up a frame—or use one you knew all about?”

“A smart guy would pick one he knew how to work,” Angelface replied. “If I was running hop, I'd know just how to pin it on somebody. I'd plant the opium, use the plane, tip the law—”

“That would be where he's getting the extra dough he spends,” I said.

“He wouldn't deliberately make away with a man who was taking some of his business,” Merna cut in. “But he might kill if, for instance, Joe had known enough to send him up for a few years.”

I thought for a couple of minutes. I remembered stories in the papers about Carlyle hopping movie stars to Yuma and to Tia Juana for elopements. Under the cover of legitimate business—

“Ever been a night watchman?” I asked Angelface.

“No,” he said.

“Well, you're one now. From now

on, every night, you keep an eye on Carlyle's hangar from dusk to dawn. If you can find anything out from his men, from the newspapers or any place else, I want to know. I'll stay right in the hangar waiting for your call.”

The fields—Tyson Airport and Municipal Airport—were only five miles apart. While Carlyle was circling for altitude I could take off straight and ride his tail wherever he was going, I figured.

“You're taking chances,” Merna said, as if the thought frightened her.

“Carlyle is going to pay,” I said, “if he killed my brother.”

I WAS dozing off at midnight when the telephone rang. I was dog tired. I'd still been trying to get myself a job on *Born to Fly*, scheduled to start in the next day or so. And I hadn't gotten to first base. I jumped off my cot, lifted the receiver, answered thickly.

“This is Angelface,” I heard. “Carlyle is going to take off in a couple of minutes with Ronald Nirdlinger, the director, and Paula Dale, his star. Tia Juana.”

“Okay,” I said.

I banged up the receiver, started the motor right in the hangar to kill as much sound as I could. Then I opened the doors, taxied out. While the motor was warming I closed the doors. Then I took off, flew straight for Municipal Airport. By the time I got there, there was no sign of Carlyle's ship under the lights. His hangar was dark. And I couldn't spot his navigation lights.

But I didn't let that worry me. I had it all planned. I cut straight down the coast for Chula Vista, where there was a small airport near the border. I landed, called a taxi, and raced across the border. Finding a wedding party consisting of a motion picture star and her director wasn't hard in the dingy,

poorly-lighted one-main-street town of Tia Juana. They were in the Foreign Club, drinking champagne—but John Carlyle wasn't with them.

I hopped back into the taxi.

"To the field, over by Agua Caliente," I told the driver.

When the car got near there I saw the sheen of the ship's wings. There were no lights, no cars parked nearby.

"Here's some dough," I said to the driver, peeling off a bill. "Beat it. Start cruising the road at five-minute intervals. Keep your mouth shut. Don't let a fare pick you up. And I'll flag you when I need you."

The ship was parked near some tall grass. It wasn't locked. I went through it from prop hub to tail surfaces. There wasn't any dope cached. I was a little disappointed. But something might happen yet.

It did.

A car started rolling off the highway onto the field. Before its lights picked me up I dived for the grass and lay there on my stomach. The car was an old Model T. A couple of Mexicans clambered out. They looked around and started jabbering. I knew Spanish from Brenagua.

I picked up enough of what they said to know they were waiting for Carlyle and they had something for him.

"Smart guy," I admitted to myself. "He lets them run the hop out, and take the risk."

A couple of minutes later a taxi rolled onto the field—one of those rattling Tia Juana jalopies. By this time I had figured enough out about the Mexicans so I could identify them anywhere. The tones of their voices. The clothes they wore. One was tall and thin for a Mexican, the other stocky. There was enough light to memorize their faces.

Carlyle got out of the taxi.

He asked for the stuff. The Mexi-

cans got a loosely wrapped bundle from the car, gave it to him, and he sent them away. I watched him go to the ship with the bundle, stow it—I guessed he was putting it under the seat—then go back to the cab. When he was gone I found the package. It took quite a while to get it open without damaging the wrapper.* It was gum opium all right. The smell and the feel of it told me that. I spent more time wrapping the bundle just the way it was and putting it back.

The car rolling onto the field gave me a start—and sent me scurrying. For a second I was sure the lights had picked me up. I dropped flat on my face. But the laughter in the car continued as if nobody had sighted anything. I lay on my stomach until Carlyle started his motor, taxied down the field and took off. I didn't want to risk being picked up by his landing lights.

Then I went back to the highway and hailed my driver.

"Back to Chula Vista," I said.

We rolled toward Tia Juana. On the American side, I could phone the customs and tip them. Carlyle would be caught red-handed. But that wouldn't be paying him off for killing my brother. Maybe a smart lawyer could spring him. Even if he got the full rap—fourteen years—that wouldn't be satisfying me. I was going to see that he got the full penalty. A life for a life. It might take time. This was the first skein in the web I was going to weave.

I'd found Carlyle's motive in killing my brother. I'd put myself in a position to charge "frame" in my case when I went on trial for smuggling. I'd accomplished a lot. But there was plenty more to be done—

The cab bumped through Tia Juana. A green light turned red. The driver came to a stop next to the curb.

I stiffened and ducked. Schaffer was

standing there—looking into the cab!

I got my gun ready—in case he had spotted me and was coming for me. But the light went green and the cab jerked ahead. Maybe he hadn't seen me after all!

WE were all working, Merna, Angelface, and I. Merna was playing Carlyle, trying to ferret out some kind of a clue about Joe's death. Angelface was covering Schaffer, watching every move he made. I was digging around through Carlyle's past, looking for some light on him. Things were that way, and we weren't getting anywhere when Merna told me:

"Carlyle says he's sorry he's ridden you. He's going to use you on *Born to Fly*."

"What the devil—" I snorted.

"That's what I want to know," Merna agreed. "The picture starts tomorrow morning."

I got a call to report for work that night. They were going to use Tyson Airport for most of the picture because there wasn't much traffic to interfere with shooting.

"You got to watch yourself," Angelface said. "I'll check every plane you fly."

The next morning I reported for work and saw one possible reason for Carlyle putting his okay on me. Every member of the Guild was working. And a couple who weren't members had been given temporary working permits. There was a real pilot shortage.

Two hours later I found out another reason. Carlyle needed my ship and had contracted it to Osborne, the business manager. At fifty dollars an hour. Carlyle called me over.

"I'm paying you twenty-five an hour for the use of your ship," he said.

"You mean," I answered, "that you're making twenty-five blood money

while I risk my neck."

"Take it," he snapped, "or get out."

Hillman, the director, was standing nearby. So I didn't argue further. Hillman called me over.

"On the first shot this morning," he said, "we've got to make close-ups of a ship filled with bullet holes. Carlyle says to use your plane."

"You mean you're going to drill the covers? Not for twenty-five an hour."

Carlyle stepped up.

"Don't be a sap," he said. "You're guaranteed a complete recovering job when the picture's over—and a hundred bucks bonus."

"Okay," I agreed.

Angelface, Merna, and I stood watching them jab "bullet holes" in the wings and fuselage of the camera crate.

They fiddled around, making shots of my ship with the star, Ronald Jason, in the cockpit. They shot from a low angle on the ground, into the sky, so it looked like Jason was racing along at a great rate. They called lunch.

Hillman and Carlyle came to me.

"This afternoon," Hillman said, "we're pulling a dog fight. I want you to go up with a camera locked on behind you, pointing straight ahead. Carlyle and the others will dive at you, 'strafe' you, and the camera will get them coming at you. It'll be a real kick. The back of your head will look like Jason's. You'll wear his helmet."

"In my ship?" I asked. "It's full of holes."

"It'll hang together," Hillman said. "Carlyle's camera ships'll be working on distant shots of the fight."

RIGHT after lunch we went to work.

Nine ships went off the ground. Six fighting ships, two other camera ships and my job. We climbed to about five thousand feet to get clouds and then the action really began. One after

the other, ships began diving at me. I recognized "Ace" Gorman and Link Andrews among the others. Carlyle was last to come down at me. As we had planned, he came head-on. I pressed the trigger on my stick to set the camera turning—and then hell broke loose!

Carlyle was pouring real lead!

Bullets spanged off my motor, and I saw a couple rip into the cover—along with the other holes. Then I got the whole diabolical plan—realized that everything had been carefully worked out to get me. Carlyle or Schaffer must've spotted me. But they hadn't brought it up. They were too clever for that.

Born to Fly was coming up. Carlyle was in charge of the shooting schedule on the flying sequences. So he'd drilled my plane full of holes so that real bullet holes wouldn't be noticed after I'd crashed! He'd told Hillman, the director, what he wanted me to do—worked on Hillman and used him as a stooge—and now I was playing into his hands for the kill. Without anything but dummy machine guns I was a mile in the air, target for Carlyle, who'd shoot at me until I crashed, and hoped I'd burn. But if I didn't—the phoney bullet holes would act as a complete cover for the real ones!

Another mysterious death—with me the corpse!

Of course, I could go down. I could duck him that way—

So I dived.

But Carlyle was under me, shooting up. Then he came at me again, head-on. His two guns blasted fire. The other pilots, not knowing what was going on were following ground directions, staging mock fights in front of the other cameras. I kept my finger on the trigger as he piled in on me, wondering how long I'd last if I didn't get down.

Then I got smart.

Twice he'd dived at me, and twice he'd banked right. That gave me an idea. It was better than trying to get down. He made a tight bank, nosed at me again. I wondered if a bullet would get me this time. I couldn't take this kind of punishment much longer. Bullet holes dotted my wings, made a neat little path. Lead spanged off my motor. Then he was almost on top of me, a few yards from a crash. He banked away. My hand, as I held the stick, was covered with sweat. Sweat was rolling down my face, dropping onto my jumper. I felt weak as a drowning man—but I did it. As he banked, his wing surfaces flashed in front of me for the smallest fraction of a second. And I swung my ship into them.

I felt my teeth grinding and my leg muscles tremble as I inched rudder and stick. I groaned aloud as my propeller bit into his wing surfaces. I felt a sickening jar. I saw the whirling, jagged stumps of my prop. A plume of smoke whipped from the motor mount, even as I cut the switch. A red shaft of flame shot out, licked at the fuselage.

Carlyle's ship, mangled, fell off into a spin. Carlyle went over the side. His parachute flared. I saw that from the corners of my eyes. I was watching the flame lash from my dead motor. I'd had that happen once before. I was cold, suddenly, and calm. The shake went out of my legs. There was one possible way to save the ship—

I slipped. I came down sideways, blowing the flames off the fuselage. Right down to the ground. But I had to straighten out to land. And the fire, whipped straight back, billowed through the fuselage. The ship hit, bounced. Heat seared my face. My goggles and helmet saved my eyes and hair. I went over the side before she stopped rolling. I grabbed the fuselage, fumbled with the screw fittings on the camera.

I was running, staggering, and my lungs were bellowing when the gas tanks went—

Carlyle had reached the ground before I'd dead-sticked in. I'd seen his ship crash, too, and a solitary figure racing for it.

Carlyle and Hillman were waiting for me, feet wide apart, fists balled. So were a couple of motor cops assigned to patrol the field, too. They came at me, the cops went for their guns.

"Get him!" Carlyle screamed at them, pointing at me. "He's a maniac! He rammed me in mid-air!"

"Wh-a-a-t—" I fumbled. "Say—Carlyle tried to shoot me down—look at his guns—on the ship—"

"See! I told you he was crazy!" Carlyle stormed.

Osborne, the business manager, elbowed his way into the jam.

"I tell you he was blasting me down—" I repeated, and saw the suspicion and disbelief in the cops' eyes. I put down the camera.

"Easy, buddy!" said one.

He and the other fellow moved in. They lunged, grabbed me. I swung wildly.

"Look out, Joe!" yelled the other as he snaked an arm around my waist. I looked into two gun muzzles. Then I felt the snap of cold steel on my wrists. Osborne picked up the camera.

"Wait a minute!" he snapped. "Give him a chance. Let's look at Carlyle's wrecked ship."

Hillman grumbled.

"You're wasting time," Carlyle growled.

But we went to the wreck. Not only were there no shells, either loaded or fired, but there were blocks in the barrels of the guns. I got it right away. Schaffer had been the man I'd seen racing to the wreck. But I couldn't prove anything, now. Sweat oozed out all

over me, and I tried to keep from shaking.

"It looks like attempted murder, all right," said one of the cops.

"Throw him in the can!" Hillman ordered.

Angelface and Merna came up then.

"Guard Osborne," I told them. "Get that film developed fast. Keep your mouths shut. Be sure it's shown with the other rushes at the studio—and have a couple of cops there."

OSBORNE, Merna and Angelface told me about the rushes later. Osborne had the stage nicely set. While I was at detective headquarters getting hell from the cops, who thought they could make me talk, the rushes went on the screen. Osborne saw to it that Carlyle was there with Hillman.

Carlyle, I knew, was still under the illusion that the camera in my ship was fixed. He didn't know about the swivel my brother had invented, which allowed the camera to be shifted by the lever in the cockpit. He thought it had been shooting straight ahead, catching only the "attacking" ships in its frame.

When the film went on he was sitting there with Hillman, boosting his own stock. But he shut up when my stuff came on. Angelface saw him grip the arms of his seat when the camera started shifting, focused on the left lower wing of my ship. He made a hoarse, guttural sound as a string of bullet holes appeared, one by one.

Angelface signaled to the cops outside the projection room. Carlyle darted wildly for the door. Angelface braced himself.

"Not so fast, killer!" he snapped, and stuck out his foot.

Carlyle went down. Angelface, Osborne and two dicks landed on his back.

"Schaffer—Schaffer did it—" Carlyle kept saying. "I didn't know those

guns were loaded—”

So they picked up Schaffer. They told him Carlyle had confessed. He came along quietly, sullenly. Until they put him face to face with Carlyle. Then his hands started working convulsively, and his face twisted with a hate that chilled you.

“You lying rat!” he spat, and lunged at Carlyle. His hungry fingers closed over Carlyle’s throat. It took three cops to pry his hands loose.

“You dirty killer!” the mechanic screamed. “You made me the fall guy! When Joe Varden started cutting in on you, and got wise to your smuggling racket, you fixed his control wires so he’d crash. Then Tim Varden got wise—and you figured out—how to get him—”

“He lies!” the cowering Carlyle snarled through pale lips. “He lies—”

“He gave me five hundred for helping him fix the wires!” Schaffer shouted. His long finger accused Carlyle. “Then, after he’d got rid of Joe Varden, along come his brother, Tim. He tried to buy Tim out. But Tim was too smart. He wouldn’t sell.

“He figured Carlyle for the killing. Carlyle stole his ship, flew it over the

border, tipped the Feds, planted the junk. Carlyle nearly went crazy when Tim was sprung. I spotted Tim in that cab at Tia Juana and told Carlyle.

“Mantell knew he had to get Tim, then. So he figured out how to shoot him down, and shifted the production schedule to do it. He told me he’d frame me if I didn’t rig the real guns and load ’em. When I saw Tim come in for a landing, I knew I had to duck the shells and plug the guns. I did—”

“All lies—all lies—” Carlyle snarled.

“Shut up, Carlyle!” snapped Fulkes, in charge of the dicks. “I’ve heard enough to send you both to the gas chamber.”

They let me out a few minutes later.

“It’s swell,” I said to Angelface, “that Joe avenged his own death with that swivel invention.”

Yes, business is good, now. Everybody’s getting a fair break, and all the pilots are working again, sharing equally. And Merna and I are doing okay, too. The firm is Tim Varden and Company. Merna’s working right along with Angelface and me—until she has to retire temporarily.

Mrs. Varden, you see, is infanticipating.

FLYING BY ECHO

THE new “absolute altimeter” tells how high a plane is flying by means of *radio echoes!*

The earth, we know, reflects radio waves. Therefore a plane’s altitude can be determined from the time required for a signal sent out by its transmitter to strike the earth and bounce back to its receiver.

Here is how the new altimeter solves the problem of measuring the infinitesimal interval of time between signal and echo at airplane heights. A radio beam is sent earthward whose *frequency is continuously and regularly being raised*. The frequency of the first echo received is automatically compared with the frequency of the beam *then* going out. Since the rate at which the frequency is changing is known, the comparison gives the elapsed time!

That, of course, is proportional to the plane’s altitude. But the superiority of the echo altimeter is that it measures not heights above sea level but *height over land or other obstructions*.

One new use for this new absolute altimeter is the making of maps. It will be possible to plot ground contours while photographing the terrain at the same time. This new altimeter is so accurate that when flying over a farm house or filling station the needle will fluctuate, recording the height of the object passed over!



AIR ODDITIES

Strange things that have happened in Aviation



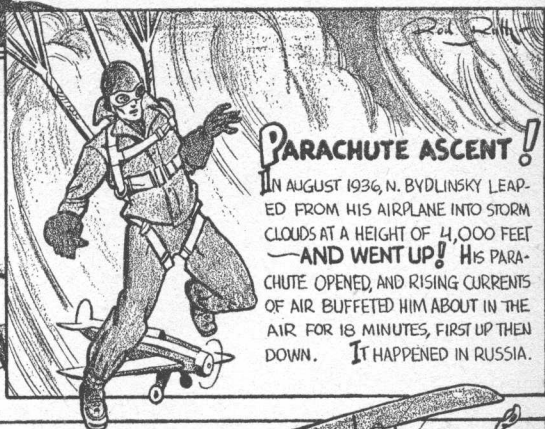
TAKE-OFF FROM A TREE!

CAPTAIN CHARLES KINGSFORD SMITH, FAMED AUSTRALIAN FLYER, ONCE HAD TO TAKE-OFF FROM A TREE! FORCED TO MAKE A LANDING IN A FOREST CLEARING OF NEW SOUTH WALES IN 1930, HE FOUND HE HAD NO ROOM FOR A TAKE-OFF. TYING THE TAIL OF HIS TRI-MOTOR SHIP TO A TREE, HE "REVVED UP TO FULL SPEED, THEN HAD A FARMER CUT THE ROPE. LURCHING FORWARD IN THIS AMAZING GETAWAY, SMITH MISSED DEATH ONLY BY INCHES AS HIS WHEELS WHIPPED THROUGH THE TOP BRANCHES OF THE SURROUNDING TREES!

HAWK WINS DOG-FIGHT!

WHILE FLYING AT AN ALTITUDE OF 1000 FEET OVER GREECE, LIEUTENANT MASTORIKIS SUDDENLY FOUND HIMSELF ATTACKED BY A GIANT HAWK. FOR TEN MINUTES A WEIRD BATTLE RAGED, DURING WHICH TIME THE HAWK SO BADLY DAMAGED THE GREEK PLANE THAT ITS PILOT WAS FORCED TO LAND TO AVOID CRASHING.

THIS HAPPENED IN MARCH, 1922.

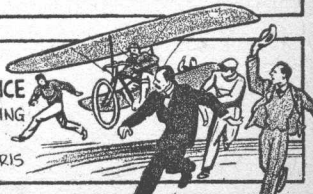


PARACHUTE ASCENT!

IN AUGUST 1936, N. BYDLINSKY LEAPED FROM HIS AIRPLANE INTO STORM CLOUDS AT A HEIGHT OF 4,000 FEET — AND WENT UP! HIS PARACHUTE OPENED, AND RISING CURRENTS OF AIR BUFFETED HIM ABOUT IN THE AIR FOR 18 MINUTES, FIRST UP THEN DOWN. IT HAPPENED IN RUSSIA.

FLYING BICYCLE!

M. GABRIEL POULAIN, FRENCH BICYCLE CHAMPION, WON 10,000 FRANCS IN 1921 FOR TWICE LAUNCHING HIMSELF INTO THE AIR ON A BICYCLE EQUIPPED AS A BIPLANE. USING FOOT POWER ALONE, HE ACTUALLY FLEW THE STRANGE CRAFT AT A HEIGHT OF THREE FEET FOR A SHORT DISTANCE ALONG A ROAD NEAR LONGCHAMPS RACETRACK, PARIS



WARPLANES

MARCAS REDONDA, peppery little Dictator of Chiliana, rubbed his hands complacently at the European governments' rivalry over development and mining rights in his strategic little country. The treasury was well-padded with taxes from them.

"Now, we must have a real Army, a Navy, and what is more, an Air Force," he snapped at the pudgy old General. "We must be prepared!"

General Manuel Moriera, figurehead President of Chiliana since the Izaura revolution, peered suspiciously at Re-

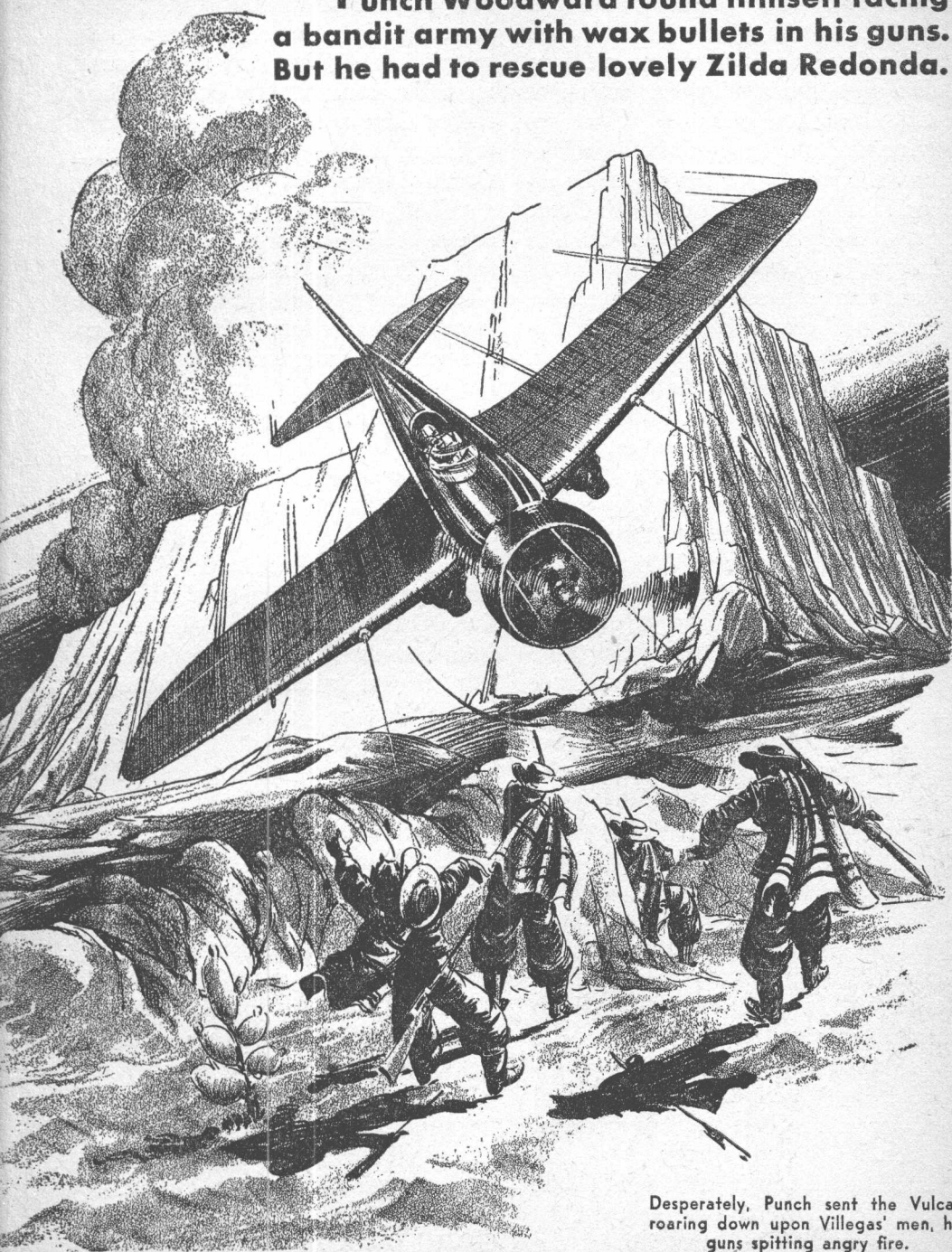
donda and readjusted his great bulk in the chair. "Prepared for what, *Senor Dictador*," he puffed over the four-inch stockade of his military collar. "The bandit, Miguel Villegas, could be our only worry, and he is hiding in the Chico hills. If he puts in an appearance—you have only to shoot him."

Redonda bounced impatiently on his toes. "An Army and a Navy to protect our shores. An Air Force to protect our boundaries along the north and west. Europe is at war. We must be prepared. Fashions have changed. No longer do smart governments put their



FOR SALE By A. G. J. WHITEHOUSE

Punch Woodward found himself facing a bandit army with wax bullets in his guns. But he had to rescue lovely Zilda Redonda.



Desperately, Punch sent the Vulcan roaring down upon Villegas' men, his guns spitting angry fire.

capital into schools, public buildings, and highways."

"Ah, yes," breathed the President, beginning to get the point. "The boundaries, of course. The unsettled ones could be very firmly established to our satisfaction. With an Army, a Navy, and a squadron of airplanes, we might even extend them, eh?"

"A *squadron!*" gagged the little Dictator. "*Senor Presidente*, please be rational. A Wing, a Group, an Air Force that will dominate the whole of South America."

The word was soon flashed to all the aeronautical centers of the world. *Chiliana needed airplanes, and lots of them.* Men and machines from all over the world began to gather at Rolario, military capital of Chiliana. The test airport hummed with the activity of bombers, fighters, and ships of all types trying to prove their worth to the government officials. It was a glorious heyday for every adventurer and super salesman in the flying world.

This was the day for testing dive bombers. And Punch Woodward, ace salesman for Vulcan Aircraft of California was determined to come off first best. But competition was keen, and Punch was very much afraid that some of his competitors had done some palm-greasing on the side.

Old man Vulcan would never stand for any bribery. They tried it once in China but lost out to the Italian Bredna, reportedly because they were outbid. Punch Woodward had good reason to believe that here in Chiliana a little palm-greasing would do a lot more towards getting the order than the famed Vulcan Slotted wings and supercharged engines.

The Bredna was in the thick of this, too, and looked like copping the 300-plane order. Little Franz Werfel, the German racing pilot, was in there pitch-

ing for the German Starck. The 1,000 h.p., stub-winged job streaked through its required paces like a thoroughbred. Young Werfel was a happy-go-lucky soul, blonde and bubbling with life. Inherent discipline made him stay within certain bounds, but at times he acted more like a school boy out on a lark, rather than a high-pressure salesman trying to peddle twelve million dollars' worth of flying equipment.

"That guy is either a prep-school nut, or else he's the smoothest article on this field," Punch Woodward argued with himself as he watched Werfel bring the Starck in over two standards in an exhibition of picking up messages, stimulating certain conditions in the field of active service.

Boppo Blaine, the friendly Britisher who was representing Hamilton of Hendon with a Hamilton "Harrier" tried to comfort Punch.

"Look here, Woodward," he muttered, peering past the bowl of a massive briar pipe, "you and I are only down here for the trip. Bloody Cook's tour, if you ask me. We haven't a chance."

"You've got a neat job," argued Punch, his square jaw firm, but willing to concede a point. "I'd sooner fly your bus than the Bredna. She doesn't have enough fin surface for my money."

"Granted," nodded Blaine, "but unfortunately, that isn't the point. We can't beat this set-up."

"What do you mean?" demanded Woodward, drawing up his long slim legs. "We're both offering them a job that fills all their requirements."

"Correct," agreed Blaine. "But if you get the order, what's the most important clause in the contract?"

"You mean the dough? These guys have got plenty. They cleaned up their national debt last year on oil alone."

"Granted!" said the hawk-faced Eng-

lishman again. "But you know what the German Starck firm will take, don't you?"

Woodward's jaw clamped tight.

"I was wondering about that," he said finally. "I tried to get it out of that little guy with the high heels—er, Redonda. He wouldn't answer straight-forward."

"If Starck gets the contract they'll take payment in petroleum," said Blaine. "Hitler is begging for high octane fuel. We can't beat this barter game, Punch, my boy!"

Without turning his head Woodward asked, "What are we going to do, Blaine?"

"You'll do something, but I'm damned if I know what I'll do," Blaine said.

"I wish you'd tell me," Woodward got up suddenly.

"You next?"

"Yeh! Dummy-bomb dive with a straight pull-out below 200. Be at least a 7-G. Hope my belly stays in."

"S'truth! I'd forgotten that," the Britisher gasped. "Oh my hat . . . 7-Gs . . . and no chance to sell, if you win."

"Be seein' you," Woodward growled over his shoulder and strode off toward the Vulcan "Vortex."

BOB PLUM (sometimes known as Plum-Bob to his associates, because of his deliberate and exacting demands where fitting, rigging, and mechanical adjustments were concerned) was vetting the port wing.* He closed one eye and screwed his hopeless horse face in-

to an atrocious mask of dissatisfaction.

"Yer can't vet a wing if yer ain't got an air pressure gauge to check the wind in the tires," he argued as Punch came up. "How do I know whether they's 29 or 30 pounds in them wheels?"

"Where's yours? You had one when we came down here."

"I had a lot of things. If we stay here another week we'll walk home in our shorts. Someone's swiping everything we got."

"Go over and borrow that Limey's. He's okay. He'll let you have one."

"They got his, too. I was just talking to his greaseball."

"They all bin swiped?" asked Punch. "Seem to. Yer can't vet a wing right unless. . . ."

"I know . . . I know. Let it go. I'm doing the dummy dive in five minutes. Just check the elevators."

Punch wandered into the shed that had been reserved for the foreign manufacturers. Boppo Blaine was going over his job with a dismal mug, while his mech, a veteran from the old Brooklands track, worked with the calm, emotionless effort that is the mark of all Britishers.

Punch took a wide roll of adhesive tape from his valise. He let down his breeches, pulled up his outer shirt, and began binding his stomach over his undershirt. Roll after roll he wound on and then, drawing a deep breath, he tucked in his shirt and adjusted his clothing again.

"I hope that keeps my gizzard in," he said with a knowing glance at the Englishman.

"Mine is forcing its way out at the very thought," Blaine muttered. "We keep losing things, Punch. How are they treating you?"

"We lost a tire gauge, as far as I can make out. Anything else?"

"A special sparking-plug socket

* Vetting the wing means to bring both wings into perfect alignment. This is done when the plane is on a perfectly level floor and the fuselage is equidistant from the floor at all corresponding points. Perfect alignment demands that the plane be mounted on blocks. However, if blocks are not available, it is important that both tires are evenly inflated.

wrench and another bit we use to adjust the blower fan. Mucky work going on eh?"

"It wouldn't be young Werfel, would it?"

"I don't think so. He seems all right."

"Capello. . . . The Bredna guy?" asked Punch snapping the thigh straps of his 'chute harness.

The Englishman said nothing, and in saying nothing he suggested a wealth of suspicion.

"Oh, well. If you need anything, you know where our stuff is," Punch said striding off with that strange stiff stride of a man who is wrapped in dive-bomber test bindings.

"Thanks. Best of luck!"

THE Vulcan Vortex was run out to the checking stand set up by the aviation officials of the Chilianan government. They were doing the thing right, even Punch Woodward had to admit that. They had every known device for examining and testing military planes. Mechanics went over the plane measuring the oil, fuel, and position of the 400 kilogram bomb. Nothing was overlooked and for the tenth time the details of the plane and its equipment were jotted down on test-check charts.

"You will wait a few minutes, Mr. Woodward," a gaunt man with a heavy moustache said. "Adjutant Capello is about to make his test dive."

"Yeh. I see him. He ought to hit it straight in the middle with that mid-wing job. She's built for that particular stunt."

The Chilianan official ignored the statement and went back to the desk and listened in on the reports coming down from the fast Bredna plane, poised for the dive from about 10,000 feet. A loud speaker on the long table was barking a series of reports.

It was in Spanish, but Punch knew enough to catch the general idea. The Italian pilot was putting on a show. He was an actor and his lines had been well rehearsed beforehand.

"I am simulating an actual attack on an enemy strong point," he barked through his muzzle-mike. "We will presume that the enemy has a concrete redoubt below which commands an important strategical position. A heavy gun emplacement, perhaps—or an anti-tank post. Now we shall see what a Chilianan airman could do were he flying the Bredna *D'assalto* armed with a suitable projectile. Are you ready, Colonel Neuquen?"

A gun was fired nearby and a signal rocket spat up and scrawled a beautiful white plume of smoke against the background of the test field.

There was an answering statement over the loud speaker and all eyes were turned skyward. A dozen pairs of binoculars swept the blue above and watched the silver and scarlet Italian dive bomber snap up into a dead stall, fall off smartly and then start down like a wide-feathered dart.

The bellow of the Alfa-Romeo radial stiffened everyone below. The beautiful mid-wing job came down as though it were sliding down a steel wire. The scream of the engine made every man on the field cringe and draw his skull a little deeper into his shoulder blades.

Punch Woodward watched, his critical eye taking in every move of the lightning fast dive-bomber. He sensed that the chesty Italian pilot had plenty on the ball and was putting on a swell show. He knew his stuff and was putting it over. A touch of theatricalism was not out of place here and the Italian was pouring it on.

Then, when it seemed that the Bredna would plunge into the canvas and timber framework of the target, the

long black 400 kilogram bomb fanged out from the cradle and sped dead into the bulls-eye.

There was a breathtaking howl, a retch prop and slip-stream, and the Bredna pulled out of the almost vertical dive, gasped, and screamed up in an unbelievable zoom.

There were cheers and handclapping from the test table. The Chmanan officials were frankly impressed. The Bredna was brought around, steadied into level flight, sideslipped gently, and brought in for a landing. The retractable gear lowered to its position only a few seconds before the wheels dabbled at the oil-parched turf.

There was no question about it, the Italian had done a swell job. He had scored a perfect hit, yanked out with plenty of prop scream, and had given them a grand show. Punch admitted that.

Punch was there to congratulate the little chesty Italian, but the Bredna pilot had no eyes or response for him. He was playing the gallery for an order and he knew he had turned in a swell job.

The Italian ship was checked again and then for the first time, Punch sensed that something was wrong.

"Where's his sandbags to make up for the 175-pound observer?" he demanded of Colonel Neuquen. "He was flying light!"

"Ah yes," the Colonel agreed. "It was unfortunate, but we allowed Adjutant Capello to go into the air before we checked that point. We have decided to let his last effort stand."

"Okay with me," agreed Punch. "Then I can toss my bags out, eh?"

"Oh, no. That is not the meaning. We demand that the test be made with all-up weight carried. In subsequent tests, Adjutant Capello will have to carry an observer or the equivalent in

sand. There will be speed tests and an exhibition of fighting tactics."

"Wait a minute," argued Punch. "Did Werfel carry sandbags?"

"No. It was not until you came up to the bench that we realized that the others had not complied with the rules, but since they have carried out their dives—"

"You mean, because I came to the bench, properly loaded, I am to be penalized with the extra weight. That isn't fair, Colonel."

"They are the rules and we shall have to live up to them from now on. You wouldn't want to make Werfel and Capello do their dives again, would you?"

"No. But I think I should do mine under the same conditions," argued the enraged American.

"Are you afraid to do it with 175 pounds more?" the Colonel taunted.

"Okay! I can see what we are up against here. Tell me one thing, Colonel. If we get this contract, how is it to be paid?"

The Colonel made a deprecatory gesture with his long slim hands: "That," he said slowly and with a slit-eyed smile, "is a matter for the Minister of Finance."

"I get it. Here goes."

PUNCH climbed into the Vortex, snapped on the safety straps. He glanced into the observer's position and assured himself that the sandbags had been properly fastened. Then he gave the Allison engine the gun and thundered out to take-off.

The Vulcan Vortex was an all-metal job powered with a 2,000 h.p., in-line Allison. The design of the engine had given the Vortex a sharp streamline nose and with her extra weight, Punch knew she would dive much faster than the Bredna. Punch also knew that the

Italian ship had accomplished her showing mainly on noise and cheap theatricalism. She had probably fulfilled the 7-G pull-out as per contract, but the Vortex would hit the accelerometer at something nearer 10 of 11 Gs.

"Still, I got to go through with it now," he argued with himself. "That Spic Colonel tried to kid me out of it. Figured I was afraid to do the dive with the extra load. I'll show that mug, if I pull her wings off!"

Punch climbed the Vortex and circled the field. He glanced down at the target. There were two black holes in it already; one on the right-hand corner where Franz Werfel had managed to register a hit, the other was plunk in the middle—Capello's effort.

Punch snarled as he studied the target. The Italian had certainly given him something to shoot at.

"I gotter hit that thing to stay in this business," he argued with himself again. "Tomorrow we get a speed test and the Limey has it on me by a few miles. Jees!" he gasped. "What was that he said? An exhibition of fighting tactics? That wasn't on the list originally. I wonder what the hell they are pulling there. This is a dive bomber, not a pursuit!"

He pondered on that all the way up to 10,000 and tried to figure out what they were pulling on him. The Bredna might be pretty hot in turns and the German Starck was comparatively light and might be hot stuff in tactical maneuvers. She had been designed from an original acrobatics job.

"I don't like that," muttered Punch Woodward as he snapped his switch and began calling the ground.

"All clear, Mr. Woodward," came from the ground. That was Colonel Neuquen, the Chilean who had taken air training with the French. "Make sure your barograph and accelerometer

are working, please."

Punch checked both. They were swinging in gimbals behind him and would register his height and the degree of gravity pull when he yanked her out.

"All ready up here, Colonel," reported Punch. "Coming down!"

The signal rocket flashed into the air and assumed an ominous curve. He glared at it, hoiked the Vortex up, yanked her over hard, and let her fall off.

She fought to get her head, but he steadied her and stiffened on the rudder pedals. He straightened the wings and peered along the sight bar mounted along the top of the cowl.

She fought him again and Punch instinctively cursed Plum-Bob.

"What the hell—!" he snarled. "Bad rigging somewhere."

His jaw was tight, his back teeth rammed together like the jaws of a vice. The Vortex was behaving badly. She jerked and tried to get her head again, and he fought to get her nose straight. She wouldn't dive clean.

THE pressure was terrific now, and he was getting the first blast of a black-out. He closed his eyes a second, hitched a bit in his seat and stared forward again, blinking. The noise was thunderous and she was swerving off again, trying to swell around into a cross-wind dive.

"Damn you!" Punch screamed.

The Vortex fought, snagged her head like an enraged stallion and he struggled to get her around. He nosed her over tighter, watched her flap her wing-tips. He expected to see a wing tear away. Something had betrayed Plum-Bob. Air in the wheels—stolen air gauge—no way to carefully check the wings before the tight dive.

"Got to straighten her," he gagged

through his clenched teeth. "Got to straighten her."

The Vortex was partially out of control now. She had her nose down but the sight bar was yards off the target.

He stood on the rudder pedals, fighting against the pressure to bring her around. A wing was off line somewhere and she wouldn't dive straight. At this speed and under such conditions the slightest error in rigging was magnified a hundred times.

At last she came around, but Punch had no idea how he was approaching. He was half-blind, his vitals were threatening to burst through the adhesive tape binding. Then he sensed suddenly that he was well within the limit of the dive. He saw the shapeless target below, fumbled for the toggle lever and yanked.

The Vortex, relieved of her load, jerked as the 400 k/g bomb went out of the rack. Punch dragged her out and felt every ounce of blood surge from his head, threaten to burst through his chest. The black-out came and he was blind for seconds. He held the stick back, let her scream up the arc and hoped she would hold it long enough to give him a chance to get his sight back. Seven thousand rockets burst against a cheese-green sky. He saved her just as she was about to stall. He eased her around, still flying blind and flew in a simple circle until his eyes stopped criss-crossing and normal vision returned.

"Whew!" he gasped, opening his mouth to gulp down a breath of normal-pressure air. "Whew!"

Then he remembered. The test dive, the target, the bomb—the Bredna and the Starck—the chestly little Italian—Colonel Neuquen—and the target.

He peered over the side—and let out a quiet oath.

His bomb had missed the north cor-

ner of the target by inches. A round black hole marked the turf a few inches—it was only inches—just outside the limitations of the target. Had it been a live bomb the explosion would have been considered a "hit," but under these conditions it would be marked a "miss."

PUNCH accepted his fate and hoped against hope that his accelerometer would show the power of his dive and pull-out and give him an even break on this portion of the competition—but he knew it wouldn't.

He brought the Vortex around and, still shaking his head to get the pressure from behind his eyes, made a careful regulation landing.

When he reached the bench, the Chilean officials were bending over their charts and books. They took no notice of him, but a junior officer was told to check his equipment and instruments, with all the air of "just as a matter of routine."

"Very unfortunate," Colonel Neuquen stated. "You appeared to be having trouble in your dive."

"Wait until you see what I registered on that accelerometer," Punch growled. "I'll bet I hit well over 11 Gs on that one. I never had a black-out like that."

"But you missed the target!"

"By how much? Had that been a live bomb, it would have blown the walls of that bomb-proof in. I'm telling you, Colonel, if you buy these jobs you'll have to fit extra dive-bomber flaps, like the Germans do, to kill the dive."

"Yes. Adjutant Capello pointed that out to us. We feel sure the Vortex is too fast a ship under dive conditions. Even you, a skilled test pilot, almost lost control. They are hardly the machines for us."

"But, you aren't gonner kill us off

that way, Colonel!"

"I beg your pardon?" the Colonel stiffened.

"I was carrying 175 pounds more than the others. My accelerometer will show the difference in speed and pull-out. I missed the target by inches, but I can flap the Vortex to do any dive speed you require."

"We are conducting a military test, Mr. Woodward," reminded the Colonel.

"Look here. I'll set my flaps on the Vortex, take twenty ten-pounders up there to 5,000 feet and write your initials all across the field!" steamed Punch. "You wanted a dive-bomber test and I gave it to you, to show you that you can dive clean off the clock, pull out, and still keep her wings on!"

"But you *missed* the target, Mr. Woodward," reminded the Colonel with a sibilant hiss on the word "missed." He turned away to the table to end the exchange.

During the conversation Boppo Blaine had taken off with the Hamilton Harrier* and Punch stayed near the Vortex to watch the Englishman's effort. He was secretly rooting for Boppo, who had a splendid mount, a far better all-around job than either the Starck or the Bredna. But Punch knew that Boppo had lost much of his original interest in the military trials, knowing full well that they were competing against a barter proposition rather than military plane efficiency.

THE Harrier performed beautifully on the take-off and registered her altitude fast.

*The Harrier was a low-wing all-metal job fitted with a 1,500 h.p. Napier "Cutlass" engine of the H-type in-line. The "Cutlass" was supercharged to a high degree and the blower fitted was worked with an alluminum-alloy impeller mounted co-axially with the crankshaft and fitted with "slipper" gears to prevent damage during sudden acceleration or deceleration.—Author.

"What happened?" a voice behind Punch quaked.

It was Plum-Bob, wild-eyed, half-frightened, and plainly scared.

"I thought you were trying to kill yourself. You looked like you were gonner do a corkscrew dead into that target."

"She was* off somewhere," said Punch. "Couldn't keep her straight"

"I knew it! I knew it!" raged Plum-Bob. "I knew she wasn't vetted right. That tire gauge—"

"Sure. I know, Plummie," soothed Plum-Bob. "Not your fault. We're getting the run-around. Watch Blaine."

"I'm afraid to," Plum-Bob moaned. "His mechanic says they got blower trouble. They can't find some sort of an extension wrench thing to adjust the fan. If that thing ain't set right, Punch she'll—"

"Shut up! Take a gander at this. Here he goes. They've given him the signal."

They heard the Harrier whip up into her stall to come down and watched through a pair of glasses Plum-Bob had brought with him. The British plane flashed her dural in the sun and then belched a gigantic blob of black smoke.

"What's up?" snapped Punch. "Did he choke her?"

"I hope that's all he did. If that blower went out—"

"Jees!" gasped Punch. "She's breaking up!"

Plum Bob stood behind Punch with his hands on the test pilot's hips, peering up past his ear.

"The blower broke up!" half screamed Plum Bob. "She'll rip that engine clean out."

"Will? She has!" Punch yelled. "The motor mount ripped out clean!"

They saw a shapeless chunk of something come twirling down from the sky.

The Harrier floundered, flashed her wings, and fluttered off like a winged mallard. Sunshine glinted off the sword-like blades of the prop as the motor, clear of the frame work, came hurtling down toward a chincona thicket half a mile away.

"Get clear! Get clear, Boppo!" yelled Punch.

The Harrier fluttered again, fell into a sloppy dive, zoomed up and fell off on one wing-tip. She boot-laced* down for a thousand feet, then lost a wing and went over on her back. They saw the figure of Boppo come tumbling away, all arms and legs. His triangular 'chute opened and he hung there swaying in the sky.

The motor hit with a thump that seemed to shake the earth. The smell of burned oil fanned across the parched field. The winged Harrier was making its own way down in a series of flat spins, boot-laces and flutters.

"Boy! Are we getting the works?" scowled Punch.

"We ain't getting no orders," moaned Plum-Bob.

They watched Blaine flutter down, hit fairly hard and throw himself into the billowing folds of his 'chute. The Harrier, or what was left of her floundered into some tree-tops just outside the field. A fire engine and an ambulance charged out, kicking up a dust.

"YOU go ahead, Punch," said Plum-Bob when they were in the hangar. "I'm staying here to get her up on horses and straighten her out. I'm staying here if it takes all night. You get some rest. You must be dead after that pull out."

"Maybe. We'll see," said Punch

*The expression "boot-laced" means to zig-zag either up or down much in the same manner that the lace of your boot travels if you laced up only one lace.

quietly, going back in to the hangar to take off his 'chute and the adhesive bindings.

Boppo Blaine came along in a few minutes, carrying his parachute over his arm. He had a sickly grin on his face and was ignoring the two Army medical orderlies who were trying to get him to submit to an examination.

"Buzz off," he snapped. "There's nothing wrong with me that a good double brandy and soda won't fix up in a few minutes. Hi, Punch! How did you like the fireworks?"

"Gee, Boppo. I was glad to see you get clear of that mess. Blower?"

"Right! Needed adjusting but no adjuster. Result! Boppo comes down, boppo! Oh well."

"You got jobbed too. Well, there's nothing much we can do but celebrate, eh?"

"Granted! Dinner and all the doings at La Luna, eh?"

"What's that?"

"Bit of a supper club on the Prado in Rolario. Beautiful women, sparkling wine, and the jangle of South American music. After that, back home again, doing night-flying shows with the bloody Air Force, waiting for Hitler to come over with his bloody Starcks. Wonderful future in the Air Force, Punch."

Punch grinned: "You hope!"

"That's all that's left to live for. A bloody good war, such as my old gent enjoyed. He seems to have liked it while it lasted. I wonder what it was really like, Punch."

"I don't know, but I have a hunch I'll find out tomorrow when they pull this fighting maneuver gag on me."

"Lucky devil! I'd like to have a go at young Werfel and that chesty bloke Capello."

"Oh, I suppose it will only be blanks, with weak return springs in the guns to

take 'em," said Punch. Then he stopped and stared across the field and added: "I wonder."

"I hadn't thought of it like that, Punch," the Englishman said turning and staring across the hangar where the German and Italian planes were standing. "I don't like it, either."

"What was that about La Luna?" snapped Punch trying to change the subject.

"Love, life and the pursuit of happiness, eh?"

"I can think better in a gin-mill."

Plum-Bob considered the two reflectively, scratching the barbs of his chin with a horny forefinger.

"Do you think there's any use in my going on with this?" he asked with a mournful mug.

"Why not? She needs the bends taken out of her," chugged Punch with a series of snappy barks.

"Yeh, but who's gonner take the bends out of you when you come back?" Plum-Bob replied.

LA LUNA is something you only see in the classy advertisements put out by travel and cruise organizations. They have waiters who ape the flunkies aboard the *Ile de France* and an orchestra that would make Paul White-man turn in his Equity card. The walls are pale blue, splashed with silver. The ceiling is covered with polished mirrors. The tables are topped in teak, covered with linen, and decorated with crystal and silver.

Punch Woodward and Boppo Blaine arrived at La Luna dressed in trim evening clothes.

"I wish you didn't have to do that bloody dog-fight tomorrow," said Boppo. "I don't trust that Capello bloke or young Werfel for that matter."

They made their way through the throng of color, dress, and perfume.

The orchestra was beginning the opening bars of "Spanish Serenade" and couples were blossoming up from their tables and moving gracefully toward the glistening dance floor.

At the bar they had two White Monkeys and began a concerted examination of the crowd with ideas for possibilities of the evening. The men were of various types, well dressed, polite, and typical of Rolaria's social whirl. The women were mostly brunettes, with well chiseled features, lovely eyes, and all knew how to wear clothes.

"Looks like those two are heading our way," said Punch putting down his glass. "One seems familiar. Hello! They seem to know us."

Boppo turned and twisted full into a double blaze of feminine beauty. They wore short silver fox capes, stick-outy summer frocks with a dash of Paris, and smiles that made a White Monkey lose all its flavor. One was blonde, the other something out of the book with burnished chestnut hair.

They came up to the two airplane salesmen daintily shy but not uncertain of their moves.

"You are some of the gentlemen from the aviation trials?" the chestnut haired girl asked.

"I was. He still is," beamed Boppo bowing. "Allow me. Mr. Woodward of Vulcan Aircraft. Somewhere in the United States. Big place the United States."

"Thank you. I am Senorita that is, Miss Redonda, my companion, Miss Derwent."

"Charmed, Senorita," bowed Boppo again. "I am Boppo Blaine, of Hamilton. I lived up to my name today—went Boppo."

"He got the works," added Punch.

"It was worth it," beamed Boppo again. "Look what we won!"

The girls smiled and Miss Redonda

chirped, "We are looking for Herr Werfel and Adjutant Capello. They were to meet us here."

BOPPO let out a decided howl, wrapped his head in his arms and knocked his noggin on the edge of the bar. But Punch thought quick.

"That's too bad. They won't be here. They both piled up in the dive tests this afternoon."

Boppo swished back smartly. He added, taking up where Punch left off. "It was terrible! But I suppose they will get lovely funerals. Guns going off, soldiers with reversed arms and flags on their coffins. I rather like that touch, eh Punch?"

The two young ladies went white and stared at each other. The chestnut girl recovered first.

"But my Father said nothing of it when he returned. You did not hear of it, Doreen?"

"But they called the Palace, not much over an hour ago," Miss Derwent countered. There was a twinkle in her eye.

"The Palace?"

"Your father?"

"You wouldn't be any relation to Marcos Redonda, the Chilianan Dictator would you?" Punch asked with a mouthful of dry cotton.

"Wait a minute," suggested Boppo. "We need more White Monkeys to stand this. You will join us for cocktails, at least."

The girls smiled and Miss Redonda explained: "I am Zilda Redonda. My Father is the Dictator, yes. Miss Derwent is my companion. She's English."

"Owoo!" howled Boppo, clutching at the sleeve of a bartender.

"We will have cocktails with you until—" she added.

"We'd love it," added Miss Derwent.

"But you don't look like—your hair

isn't black," argued Punch.

"My mother is an American. She came from Baltimore. She is a grand person."

"She must be," said Punch. "But your old man. He's giving us the works."

"Not here," warned Boppo, handing out the drinks. "This is no time for business. We're out for pleasure. Cheers!"

"Anything wrong?" asked Miss Redonda.

"Two things. Werfel and Capello," snapped Punch. "Why did they have to be the lucky guys. Here we are, a Yank and a Limey out on the loose and you two are dangled before us, then those two guys come along and grab you."

"Anyone who is this late," suggested Boppo, "should be penalized one dinner, at least."

"Yes," argued Blaine. "We're going to have dinner. We have a table. You must be starved by now—you are starved, aren't you? So why not join us. And if your escorts come along later—"

"But they piled up, you said," the girls smiled.

"Oh, that. Well they might take a little time scraping off the mud and dust, and you can't be expected to wait all this time. Why not stave off starvation for a few minutes at any rate?"

They required little coaxing, and in a few minutes they were seated together at a table.

THEY gave their orders and Punch and Miss Redonda went through the tables to the dance floor. Boppo and Miss Derwent sat and talked about "home". They had much in common.

Then their conversation switched to the military trials and Boppo's crash. The girl was plainly worried as Blaine

told the full story of the afternoon. He added a few details of the dog-fight events, also.

"Neither of you have a chance," explained the English girl. "The Italians and Germans have it all tied up. It's oil and oil leases you know."

"I understand," nodded Boppo, "but it's damned unfair. Woodward's kite is a beauty. It's the best on the field. Better than mine because it has a better supercharger system for this high altitude business here in the Andes. He deserves the contract. They'll put it across him, though."

"I'm afraid so. These South American republics work that way."

Punch and Miss Redonda returned beaming and glowing with happiness.

"Look here, Boppo," Punch explained. "All set for tomorrow. We're going to do it up right. Start here and then make the rounds. Miss Redonda has promised to show us the country."

"What about your show at the field?"

"Oh, after that business. The girls are going on some sort of a boating picnic up the Chico River. They'll be back in time. Okay?"

"Splendid! But hello! Here's the bad news."

They all glanced around and spotted Capello and Werfel heading toward them. The Italian was black with fury and Werfel was pale with frustration.

They came up to the table, clicked their heels, bowed, and Capello said coldly, "Good evening, gentlemen. We will now relieve you of your charges. We have been unfortunately delayed."

Punch and Boppo stood up and glanced at the girls.

"Won't you join us?" asked Blaine trying to be diplomatic. "We can get more chairs."

"Sorry! You are ready, Senorita?" snapped the Italian.

"You must excuse us, Adjutant," said Miss Redonda, and she said it right. "We have ordered and these gentlemen have been very kind. We waited long enough. Good night, Adjutant Capello."

"My regrets, Senorita," hissed the Italian. "Perhaps we can have the pleasure tomorrow at the same time?"

"I am sorry. We shall be engaged."

"With these gentlemen?" the Italian went black again. "I hope they won't be delayed. There is a possibility, of course. There is another trial tomorrow. Perhaps I shall call you, eh?"

Punch flamed up at that. "You needn't worry, Capello. We'll be on hand, trial or no trial, and if there's any funny business, you had better plan to take to the silk. We took plenty from you guys today."

"Take it easy," warned Boppo with a whisper.

THE Italian stood stiff and straight in his trim Warrant Officer's Regia Aeronautica uniform. He was trembling with rage.

"Pah! You will not be here, after the dog-fight demonstration tomorrow," he flamed. "I'll chase you out of the sky. I have chased hundreds like you out of the sky in Spain. I'll bite your tail off!"

"As long as you confine it to biting, that's okay with me," grinned Punch, "but if you try any funny work with those blanks."

"Dog! Filthy Ameri—"

"There are ladies present," said Boppo, just before he swung.

His fist crashed on the Italian's chin. He bounced against the German, and together they bounced to the gleaming surface of the dance floor.

That was the beginning. Punch was too amazed at first to move, but he quickly snatched the girls out of their chairs and shoved them to safety behind a broad pillar.

"Play fair!" he bellowed at Boppo. "I was entitled to the first smack."

"You can have the rest. There'll be plenty."

The Italian and the young German came charging back through the tangle of dinner guests. A water bottle twisted through the air and splashed against the pillar. Punch went to work and caught Capello under the chin. The Italian went straight up in the air with his toes pointing to the floor. The German slid past, bashed at Boppo with a swinging right that knocked the Englishman across the table. Punch pivoted like lightning and curled a right at the German, catching him high on the temple. Young Werfel screamed, did a nose-dive into another table, and didn't move.

Punch yanked Boppo up to his feet and barked at him. Boppo said nothing but swung a right at the Italian who had started to get up from his knees. The punch caught him full in the nose and splashed it all over his face. He rolled over, kicking another table into the dance floor, and crawled on his hands and knees leaving a trail of blood across the black surface.

"Stinker!" argued Punch. "That's another one you did me out of. This was my fight."

"Sorry!" said Boppo, rearranging his decorations. "I'll get another table."

The head waiter, dolled up in something that looked like a matador's costume, brought his minions in. They dragged Werfel out from his tangle and rushed him away. Another shoved the Italian into a cloakroom and in ten

minutes the uproar had ceased. The manager loudly proclaimed his regrets to Miss Redonda, who was maintaining her calm like a lady.

"Bravo!" said Boppo enthusiastically. He moved a new chair behind Miss Derwent. "I must apologize for my—"

"For not calling your shots. That Woppo was mine. You softened him up," snapped Punch with a grin from behind Miss Redonda.

"Well, at least we shall be well taken care of," said Miss Redonda. "Our escorts usually wind up under the tables. This at least is a change."

"Wait until tomorrow. We'll try to stage a real battle royal for you, Zilda," said Punch.

"Zilda?" gasped Miss Derwent.

"That's all right. We're pals now, eh, Miss Redonda?"

"Right, Punch," grinned the girl.

And the rest of the evening went off according to schedule, or what corresponds to schedule when two aggressive pilots spend a few romantic hours with a couple of *Senoritas*.

THE activity about the test table at the Rolario field the next afternoon would have warmed the cockles of any test pilot's heart.

It was very satisfactory to Punch Woodward. His Vortex, thanks to the motherly ministrations of Plum-Bob, was in splendid shape for any further test demands Colonel Neuquen might devise.

The Chilean mechanics and experts "borrowed" from the Army Engineers Corps, went over the three competing ships again and checked them for the nineteenth time. Fuel was weighed, measured, and tested. The oil was inspected and this time the Starck and the Bredna were forced to carry sandbags to make up for the

weight of the observer.

Punch had done a short test flight shortly before noon to check the controls. He was taking no chance on either Werfel or Capello this time. If they were going to "play for keeps" as Punch suspected, he intended making sure that his Vortex would be in shape for any dog-fighting they might try to pull on him.

The fighting maneuvers event had been thought up by Colonel Neuquen mainly as a spectacular climax to his program of tests. It was to be staged before the chief officials of the government. Special flag-bedecked stands had been erected behind the test bench.

Colonel Neuquen explained the details to Dictator Redonda and President Moreira.

"You see, Señor Presidente," Neuquen started for the third time. "We have demanded that these planes can dive and attack a strong point. We have demanded a cruising speed of 250 miles per hour. So far the German Starck and the Italian Bredna appear to be equal in performance attainment. I feel sure we can get either with very little trouble at our terms."

"And the American entry?" Redonda snapped.

The Colonel made a deprecatory gesture.

"So far, it has not come up to the standards set by the others. In the dive test yesterday, it acted badly and the pilot missed the target with his dummy bomb. Not by much, but he missed, you understand. And then again, we cannot make the same terms with American firms. They will demand payment in actual gold."

"Unreasonable!" the President spluttered.

"I am glad you understand, Mr. President."

"Fully. Go on."

"Today we shall ask the entrants to stage a dog-fight. Their guns are loaded with blank cartridges, fitted with wax bullets. We adjust the return springs of the guns so that they will fire although the ammunition is blank and does not offer the same recoil forces. They simply simulate actual fighting conditions. A Williamson gun camera will register on a special film the actual position of one plane . . . the plane being fired on, and so records the possible hits. The German Starck and the Italian Bredna will perform first. After that the American Vortex will engage the Italian. We shall begin, eh?"

Redonda waved a small white hand and scowled.

"Those two the competing pilots?" he asked as his field glasses poised at the bruised faces of the two men.

"Herr Werfel and Adjutant Capello," said Colonel Neuquen.

"Have they been in difficulty? A crash? They appear to be somewhat damaged. I thought it was the Englishman who had crashed."

"You had not heard? They were to have escorted your daughter and her companion last night to dinner. There seems to have been something of a scene involving the American Woodward and the Englishman, Blaine. In other words, a fight at La Luna," explained Colonel Neuquen.

"Perhaps that is why my daughter declined to grace the Presidential box," mused Redonda, rubbing his chin and peering down at the bandaged and patched Werfel and Capello. "She said she preferred to go on a boating picnic up the Chico." Then as an afterthought he added, "I should have liked to have seen that fight. One misses much these days."

"At any rate, it should make the dog-fight exhibition very interesting," said Neuquen. "I will start it at once."

BOPPO BLAINE and Punch Woodward stood by the leading edge of the gleaming Vortex and watched the Starck and the Bredna take off. Neither one missed the meaningful grimace and the raised fist that Capello waved at them as he rumbled his ship away.

"I wonder what that guy has up his sleeve," said Punch, his eyes in narrow slits again.

"I wonder what he has in his ammo boxes," corrected Boppo.

"They were all loaded the same. Kynochs blanks with wax bullets," said Punch. "I watched them stick them in."

"So did I, but I'm damned if I can tell the difference unless I pick them up and weigh them. They could load the first 200 rounds with wax bullets and the rest with ball."

"You're right, they do look alike. The wax is tinted the same color as cupro-nickel."

"But damn it all, they wouldn't stoop to that," the Englishman argued with himself. "That would be murder!"

"Almost the same as they did to you. This time they have a personal reason to pick me off."

They were blanked out by the shriek of loud speakers announcing the details of the test. Spanish-speaking announcers gave the details, fairly accurately, and the crowd leaned back to study the action which was being staged above them.

The two planes went through all the routine maneuvers and tricks. Their guns rattled and they put up what to the civilian population appeared to be a very satisfactory display.

But to Punch and Boppo it was a clever bit of you-help-me-and-I'll-help-you gag. They went through a list of dives, spins and wing-overs which might have been rehearsed for weeks, so

smoothly did they carry them out. They took turns on the offensive and the two pilots on the ground sensed that they were pulling a beautiful barney to get good results on their films.

Then, amid the raucous blat of motor horns and quiet hand-clapping, the German Starck came down in a tight corkscrew spin and landed. The Italian Bredna stayed upstairs and waited for the Vortex to come up.

"Go ahead. I'll wait by the test bench near the microphone," said Boppo. "And remember, if that bloke starts firing ball, ram him and take to the silk; we've got a very promising date tonight."

Plum-Bob had the Allison engine ticking over when Punch climbed into the pit and hooked his belt. He glanced up at the circling Bredna and started to shut the hatch when there was something of a furore near the test bench. He could see Boppo, somehow, all mixed up in it. There was a Staff car, dusty enough to have just completed a Pike's Peak climb. Dictator Redonda was bouncing around and appealing to military men. The loud speakers barked and thudded again and Punch frowned and forgot all about Capello upstairs.

Then out of it all came Boppo yanking Redonda after him. Boppo had a map in his hand and a gleam of startled triumph in his face. He tugged Redonda up to the step of the Vortex and Punch snapped off the engine.

"What the hell—" he started to say.

"It's Miss Redonda and Miss Derwent," screeched Boppo.

"My daughter!" Redonda added with a high-pitched screech.

"What the hell's up?" Punch demanded again.

"She—they've been snatched by bandits up the Chico River!"

"That foul bandit, Miguel Villegas,"

screamed Redonda again. "He was Minister of Finance once, but I was too smart for him. Now he gets his revenge. My daughter!"

"Wait a minute! Wait a minute!" argued Punch. "What's it to do with me? You got an Army. I'm busy selling planes and there's a guy up there who think's he's good. I gotter go up there and trim his tail feathers."

Boppo stared at Punch in amazement.

"BUT the Army — it is — Poof!

They could not get up the Chico River, Amigo! Too much water and that foul swine Villegas is on the famous Chico—how you say—ledge, shelf."

"It's right here," Boppo was yelling holding up a map. "Right here, Punch!"

Redonda belched again with a mixture of Spanish, French, and blood-curdling English while Punch studied the map. The contour lines gave the show away. The Chico Ledge appeared to jut out over the river and was part of the famous Chico chasm. A band of cut-throats on that ledge could hold out there for months. There was only one narrow road up to it. Redonda's ragtime army would be picked off in ten minutes if Villegas had any ammunition.

"He demands two hundred thousand gold pesos!" wailed Redonda.

"That's a lot of jack. You could buy a few Vulcan Vortexes with that, Redonda," said Punch still studying the map.

"Bah! That is nothing to my daughter!"

"No? Okay, send that German—or that Italian up after them. They got this order sewn up. Let them go up and try to get Miss Redonda out," said Punch without looking up.

"But what about our date tonight,

Punch?" argued Boppo. "We can't leave them up there."

"They were just picnicking, the guides say," wailed Redonda, "when the foul—"

"The foul Villegas came down and put his hooks in," added Punch. "I get it. You don't have to draw pictures, Redonda."

The little Dictator put his hands over his eyes to shut out the picture. Soldiers clumped around in helpless circles. Redonda appealed to young Werfel who had come up to see what was wrong.

"But such a flight I cannot make," the young German muttered. "What would one do?"

"Bah!" spat Redonda. "You should start fights in La Luna, and get your nose biffed. Such fighters, bah!"

"One could not land on that ledge, Herr Redonda," sputtered Werfel.

Redonda banged his head with his clenched fists.

"Come on," whispered Boppo. "I'll get a gun. We'll take a chance, eh, Punch. Golly, we've got to get them out."

"Don't worry, I'll get them out. I'm just playing Redonda."

"I'll see if they have any ball ammo," Boppo said.

"I don't want ball. Get clear!"

"Don't want ball?" gasped Boppo.

"No! You can beat these Spics with wax. Get clear!"

Redonda stared up as Punch settled back again, the folded map between his teeth. "You are going, Señor?"

"Give it a whirl. Get that guy Capello out of the air. He might start to play tag and gum the works. Get these sandbags out of here!"

"Get that Italian down!" screamed Redonda. "Clear the sky. The American is going to save my lovely Zilda."

But Werfel had beaten them to the

microphone. He was bending over it and holding a frightened announcer clear with one large hand. He had swung the wave-length lever over to Capello's set and was barking excited words to him. Boppo ran over to the German and smashed a stiff right to his jaw. Herr Werfel never saw Punch Woodward take off.

PUNCH WOODWARD took off across wind with a roar that made everyone in the grandstand cringe. He ripped the Vortex over hard, slapped her around with screaming prop-wash against the rudder and steadied her for another gut-retching zoom. She redone a swell job.

Then suddenly, *Brat-t-t-t-t-t-t!*

The Bredna was slamming at him from above. He could see the twinkling of the muzzle-cups of the Darn guns in the Bredna's wing boxes. The guns were firing ball ammunition! There could be no question about that. Look at those perforations just forward of the port aileron hinge!

The Vortex leaped, canted over on one wing, zipped around and steadied.

Punch leaned out, waved to the Bredna pilot, then stuck his finger toward the ground.

"Get out of the sky! The test is over. Get out!"

But the Italian pilot swished around again and sprayed the air with another concentrated burst that fanged past the Vortex's steel prop.

"I get it. You're playing out the hand, regardless, eh? Well, you've got live stuff and I'm on the dirty end, but we'll see."

The Vortex squealed as Punch yanked her around and brought her steel noggin on the Bredna. He held her there. The Italian ship was hoiked up hard and the Vortex slammed through, piling hard into a zoom and a half-roll.

Punch came out, peered over, and saw the fluttering Bredna slither into a side-slip. With a low oath he shoved his stick forward, pelted at the Italian job again and slammed directly at the glint of the cockpit cover. The Adjutant glanced up, saw his roaring Nemesis, and was fully convinced that the mad American was about to ram him. He ducked, tried to kick his rudder and the Bredna, half stalled, slithered into a flat spin and went out of control.

"Now jump, you spaghetti-bender!" cursed Punch. "Let's see how you like taking to the silk!"

He plunged madly at the Bredna again and saw Capello fighting to save her. She was well out of control now. In his excitement the Italian had cut his engine and she was spinning fast. The Vortex slammed at her and Punch zipped off a short round of blank ammunition . . . Just to put the Williamson camera into action and to get certain evidence he required.

As he plunged past with only inches to spare, he saw Capello slam his hatch back and hurl himself clear. There was the evidence. *The Bredna would not pull out of a flat spin with the engine off* and her pilot had abandoned her at 1,000 feet!

THE Vortex with a song of joy thumping from her steel nostrils headed west for the outskirts of Rolario where the Chico river curled around and formed a head-scarf of foam for the city. Ten miles further up, the river crawled out of the grim chasm after which it was named, a deep dignified waterway that wound down from the foothills of Mt. St. Lorenzo. He swung over, picked out the town of Chunkeaikea, and set his course for Chico Ledge. According to his map it was twelve miles further to the northwest.

(Continued on Page 136)

The BEAT BUG CONQUERED

By WILLIAM H. RANDALL

PILOTS and passengers of multimotored planes are feeling much better these days—they are no longer annoyed by the three second 'beat' caused by unsynchronized motors. This 'beat' has been eliminated with the introduction of an Automatic Propeller Synchronizer, an electro-mechanical device which works in conjunction with the constant speed propeller.

This mysterious 'beat' we hear so much about is nothing more than a massing and unmassing of sound waves coming from a group of motors turning at uneven speeds. For example, if the motors of a four motored ship are all turning around 1800 r.p.m., there are as many as 58,000 explosions per minute. Now, with one motor out of synchronization, you can see how the 'beat' will sound with the explosions varying in frequency. It is a nerve racking sound which is almost impossible to eliminate by adjusting the throttles. A motor turning a mere 20 revolutions per minute faster or slower than the others will create this 'beat'.

It is difficult to read an engine tachometer within twenty R. P. M. Therefore the pilot or co-pilot has been forced to adjust the throttles manually until the 'beat' has disappeared. This is a particularly tedious procedure in a four engined airplane because the ear must pick out the 'beat' of the engine being synchronized while the other propellers are 'beating' at the same time.

With the new synchronizer these difficulties are eliminated. When the engines are operating at approximately the same speed, the pilot flips a switch and the synchronizer takes command, bringing all engines to exactly the same speed and keeping them so, without further attention. The synchronizer can be disconnected, however, and the engines controlled manually whenever desired.

The operation is a combination of electrical and mechanical principles. The actual change in the speed of any engine is mechanically accomplished through adjustment of the constant speed propeller control on that engine, increasing or decreasing the pitch of the propeller. This adjustment of the propeller control is actuated, not by the pilot manually, but electrically by a small differential three phase motor attached directly to the propeller control.

The principle of operation of the differential motor is that it will not rotate when the frequency of the power being supplied to one of its windings is the same as the frequency of the power being supplied to its other winding. If the two frequencies differ, the differential motor will rotate in one direction or the other, depending on which frequency is the higher.

TO utilize this principle for the synchronization of the engines, the power being supplied to one winding of the differential motor on any given engine comes from a small generator driven by the same engine. The power for the other winding comes from a generator driven by the master engine, which may be any one of the other engines in the airplane.

If the speed of any engine differs by so much as one revolution per minute from the speed of the master engine, there will be a difference in frequency, causing the differential motor on that engine to rotate. As it turns it actuates a worm rack which increases or decreases the tension on the constant speed control spring. This in turn changes the pitch of the propeller, and thereby changes the speed of the engine. When the speed of the engine becomes the same as that of the master engine, the two frequencies reaching the differential motor becomes identical, and the differential motor stops rotating. The engine then continues to run at the same speed as the master engine.

An important characteristic of the differential motor is that its speed of rotation is directly proportional to the difference in frequencies being supplied to its two windings. Thus as an engine approaches the speed of the master engine, the differential motor rotates more slowly. The change in speed of the engine becomes slower, and there is no tendency for the motor to 'hunt' or oscillate around the synchronization point.

Manual adjustment of the speed of the engines may be accomplished at any time by switching off the synchronizer and operating an individual toggle switch for each engine, located on a control box in the pilot's cockpit. Closing this switch to either the 'faster' or 'slower' position provides an electrical current from the generator to one of the windings of the differential motor. This causes it to run as an induction motor and operate the propeller control to change the engine speed. Also, the speed of all engines may be changed when the synchronizer is in automatic operation, by operating the toggle switch for the 'master' engine. The speed of this engine is thus changed, and the others follow. The toggle switch for the 'master' engine is the only one that can be operated when the synchronizer is in automatic operation, the others being mechanically locked in the 'off' position.

This automatic synchronizer has been undergoing service tests for the past year. The United States Government and one major airline will soon make test installations of the synchronizer in multi-engined aircraft.

BRITAIN BOMBS BERLIN

BY LIEUT.-COL. BRYCE R. S. HEATHERINGTON

What about war in the air? That is a question that has been only partially answered thus far in the war of 1939. Expert opinion declares the tactics of the World War are finished. Modern aerial warfare tactics depend on strict adherence to formation. Our back cover shows a British attack on Berlin

GONE are the romantic days of the World War when knights of the air sped forth to do individual combat and rise to the fame of acedom. There will be no aces in the 1939 war. Teamwork will spell success or defeat, the individual being but a cog in the machine. It will be a cold, merciless business, stripped of any chivalry of men-at-arms. It will be as methodical and impersonal as the filing system in your office.

Heavy bombers will strike smashing, paralyzing blows at munitions factories and aircraft works. Lightning-fast interceptor fighters will rise like swarms of vengeful hornets to combat the menace from the skies. Tightly-knit squadrons will flash through the air as one indivisible unit, concentrating their fires power for a terrifying, devastating instant on their objective. That will be modern aerial warfare.

Let us take a hypothetical case and get a foretaste of what to expect when the motors and guns fill the heavens with their symphony of death. Our hypothetical engagement is illustrated on the back cover. At 20,000 feet a squadron of Bristol Blenheim bombers rocket toward Berlin at more than 250 m.p.h. The pilot and the bomb-aimer-navigator occupy the nose of the ship. A wireless-operator-gunner is tense in the hydraulically-operated gun-turret just behind the wing. Nestled in the belly of the ship is the deadly bomb load. One forward-firing gun is operated by the pilot. The gunner operates another machine-gun in the gun-turret.

Cryptic orders crack in the pilot's eahphones as the Squadron Commander directs the attack. Each plane is but a part of the whole, and the entire squadron operates as one unit. Specks in the sky ahead are swiftly materializing into vicious Messerschmitt Bf. 109 interceptor-fighters, hurtling to destroy the bombers.

The Blenheims continue their flight-course as though undisturbed. As long as they hold their formation they are almost impregnable. The guns of each plane cover and protect their companions. There are no "blind spots" in this formation. The Messerschmitts must depend upon weight of numbers and heavy concentration of fire power to smash through the hail of spitting death that will flash from the Blenheims' guns.

As one unit a squadron of the interceptors strikes

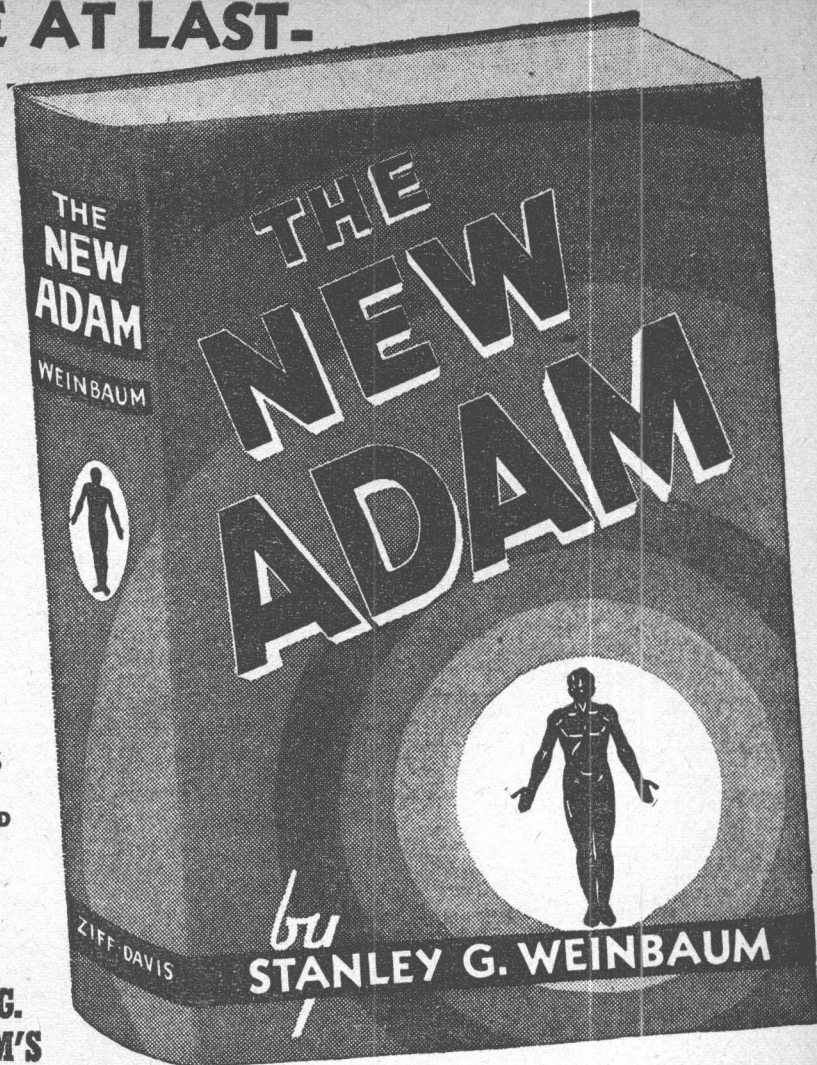
in an enfilading attack from above. Each flight of planes pours a concentrated fire into one of the bombers. The Blenheims smash back with the full fury of their guns, and continue their flight towards Berlin.

THE pilots and gunners are steel-nerved automatons, holding rigidly in formation, riding their driving ships into the blazing inferno of chattering guns. When a plane is hit mortally and staggers out of formation, the others close up to fill his vacant place. Under no circumstances must a plane detach itself from the formation to go to the aid of another. To do so would spell disaster for it also. In these days of parachutes, the crews will take to the silk and become prisoners of war, if they survive. Let the ships crash. There are more where they came from, and more pilots to fill the breach. Crushing, mass attack is the thing—a half-hundred yammering guns blasting a plane from the air and then turning their attention to the next victim.

Such is a picture of a bombing raid in the 1939 war. Will the Blenheims reach their objective? It is a moot question as yet unproved, but it is certain that some will win through. The Messerschmitts will suffer terrific losses. Who will win? It is estimated that pilot and plane replacements in the 1939 war will run as high as 90 per cent a month, so draw your own conclusions.

The old-time dog fight, as such, will occur only when air forces are striving to sweep the enemy pursuit from the sky so that bombing and observation may attain their objectives. Even then, individual pitted against individual will be a rarity. Squadrons of pursuit ships will maneuver as one plane. Postions of advantage will be sought, and then the entire squadron will strike the opposing squadron like a mailed fist. If the squadron shatters, then, and only then, is there a chance of battle-mad pilots seeking individual opponents. Otherwise the squadron will claw for altitude and try another blow. The full effect of concentrated fire cannot be visualized without a shudder. Titans of the air smashing at one another with blows that will strew the earth beneath with smouldering wreckage. Can human flesh, blood, and nerves withstand such robot-like mass destruction? Only time will tell.

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Questions & Answers

This department will be conducted each month as a source of information for our readers. Address your letters to Question and Answer Department. AIR ADVENTURES, 608 S. Dearborn St., Chicago, Ill.

Q. In this great Second World War who has the best Military airplanes and who has the fastest fighting ships?—Eugene H. Markham, Des Moines, Iowa.

A. It is practically impossible to give anyone an accurate answer on military questions because the world is so flooded with partial propaganda. Military authorities have the habit of understating the size and quality of their equipment. However, we can do a little guessing.

The Nazis have, according to their claims, 7,000 planes; the British have on hand some 5,000 first line planes; and the French have 3,400 ships which are not so hot. Only recently have the French started to build up their airforce. They now find themselves fighting a war with an obsolete airforce.

The Nazis claim to have the best and largest airforce in the world, but experts agree that this is a gross exaggeration and that England alone probably has a better airforce.

As far as we know the fastest fighting ship is the British Supermarine "Spitfire I." Britain will not release figures on this ship's speed but it's a safe bet that it is over 350 m.p.h. However, bear in mind the fact that speed alone does not make a fighting ship; it takes the additional qualities of maneuverability and durability.

Q. Is it true that the elevators can be used to turn an airplane?—Joe Chase, Newark, N. J.

A. The elevators are used when executing a bank in excess of 45°. This type of turn is known as a reverse control turn because of the fact that the action of the controls is inverted, the elevators acting chiefly in a horizontal plane and the rudder chiefly in a vertical plane. To execute a reverse control or "flipper" turn the nose is first dropped to level. If a left turn, left aileron is applied until the wings pass an angle of a bank of 45°. Slight left rudder is also applied. As a 45° bank is approached and passed, the pressure on the rudder is gradually eased and the stick slowly pulled back. The elevators now act to keep the plane turning. Level flight is maintained by use of the rudder. Constant pressure on the ailerons is needed to prevent an increase in the bank. This would mean that for a left turn at, say, an 80° bank, right

aileron pressure would be needed to keep the bank from going to a full 90°. Straight flight is resumed by the application of up aileron and opposite rudder, just as in a normal turn.

* * *

Q. Why is it that many of today's light planes are equipped with wood propellers instead of the metal ones used on larger ships?—Howard Method, 1242 Sheridan road, Chicago, Illinois.

A. There is little or no advantage in using a metal propeller on a small plane because a small wood prop is just about as efficient as a metal one. Furthermore, metal propellers cost more. However, larger ships are equipped with metal propellers because they are available with controllable pitch and because, even without this advantage, they are more efficient. The reason for this is a powerful motor demands a very heavy wood propeller with a hub section strong enough to stand the terrific strain on it. Such a section, if made of wood, is necessarily very thick and heavy. This reduces the efficiency of both the propeller and the motor which must turn a useless load.

* * *

Q. Why is it that airplane engines are not used more in boats? They are powerful and light.—Herb Noek, Pekin, Illinois.

A. A marine engine must run at high speeds and at a very low operating temperature, because high temperatures would cause the interior of the engine compartment to catch on fire. This has frequently happened when aircraft engines were used and not properly cooled. If an aircraft engine is used and cooled properly, it operates at too low a temperature for top efficiency. The spark plugs become fouled, the cylinders pump oil, and the exhaust valves become gummed and stick.

* * *

Q. How much speed is gained by using a retractable landing gear?—Bud Meloy, 1339 Thornedale Avenue, Chicago, Illinois.

A. The speed gained by retracting the landing gear depends entirely upon top speed of the plane in question. Pilots who fly the Curtiss YP-37, which has an estimated top speed of 375 m.p.h. or better, claim that if the wheels are not retracted, their speed is slowed by about 25 m.p.h. In the case of a plane with a 180 m.p.h. top speed, the gain by retracting the wheels might be only 5 or 10 m.p.h.

AIR QUIZ

The following quiz has been prepared as a pleasant means of testing your knowledge of aeronautics. We offer it solely for the pleasure it gives you and with the hope that it will provide you with many bits of information that will help you to enjoy the stories in this magazine. If you can answer 23 questions correctly (there are 37 altogether), you are way above average.

DO YOU KNOW:

1. Why aircraft engines no longer use castor oil?
2. If alcohol can be used as a fuel for engines?
3. What is the difference between a right and left hand propeller and between the "face" and "back" of a blade?
4. Who made the first Coast-to-Coast Dawn-to-Dusk flight?
5. Who Amy Johnson was?
6. Who made the first non-stop trans-Atlantic flight?
7. Why airplane motors are placed on each wing and not on the nose?
8. Why seaplanes or airplane floats have a "step" built into them?
9. Why interceptor planes are so important to the English Airforce?
10. If any Nazis Bombers are equipped with Diesel engines?

SCRAMBLED AVIATION TERMS

1. An aviation engine which revolves around a fixed crankshaft. YRAOTR.....
2. A small non-rigid airship. PBMIL.....
3. An instrument for measuring or indicating the height of aircraft. TELIRAMET.....
4. A lighter than aircraft without a propelling system. LABLONO.....
5. A metal extensively used in the construction of modern aircraft. LMARUDNIU.....

SELECTION TEST

1. The device used to blow more air into the intake manifold of an engine is known as: an air pump, hydraulic ram, a supercargo, a piston, a supercharger.
2. The name of Clarence D. Chamberlain's plane which flew the Atlantic shortly after Lindbergh was: *Leviathan*, *Hornet*, *Southern Cross*, *Columbia*, *Friendship*.
3. The builder of the first successful lighter-than-aircraft was: a steel worker, a Ubangi, an American, a King, a Count.
4. The ingredient which is used to give gasoline anti-knock properties is: sugar, iron oxide, acetone,

carbon tetrachloride, lead tetra-ethyl, bauxite.

5. The wood used most extensively in airplanes is: mahogany, elm, spruce, hickory, maple, balsa.

6. The liquid used to cool the engines of our new liquid cooled motors is: water, carbon disulfide, glycerine, calcium chloride, ethylene glycol, alcohol.

7. The slang expression for an airplane which has been damaged beyond repair is: a crack-up, a wing-over, kindling wood, washout, squash.

8. A zooming, sharply banked turn entered at a low altitude is known as: a dragging wing, graveyard glide, Chandelle, Immelmann, renversement.

9. The first airship flight round the world was made by: the British airship R.100, the Shenandoah, the Winnie Mae, the Graf Zeppelin, the Dornier DO-X.

10. The Gloster "Gladiator" is a: British sub-chaser, bombing plane, British airplane motor, Nazis colonel, castle in Gloster, British single-seat multi-gun fighter, New England actor.

TRUE OR FALSE?

1. Valves are sometimes cooled with the aid of salt. True.... False....
2. If a propeller turns clockwise, the torque thus created will tend to make the ship fly to the left. True.... False....
3. Some controllable pitch propellers are operated by hydraulic pressure. True.... False....
4. A sesquiplane is another name for a monoplane. True.... False....
5. Contact flying is another way of saying that the ground is used as a guide instead of instruments. True.... False....
6. The emblem used to identify Finland's aircraft is the swastika. True.... False....
7. The large "windmill" on an autogiro is motor-driven while the ship is in flight. True.... False....
8. The term a "hot spark plug" is used to designate a spark plug for a motor which runs hot. True.... False....
9. The U. S. Army sponsored the first successful round-the-world flight. True.... False....
10. Leonardo da Vinci, living in the 15th century, wrote about a flying machine. True.... False....
11. The Browning gun is used on English war planes. True.... False....
12. Fighting ships now carry oxygen for high altitudes. True.... False....

(Answers on Page 135)

Contact with the Authors

METTEAU MILES

Author of

A NAZI SHALL DIE!

FORMERLY in U. S. Air Corps. Mitchel Field, N. Y. Brooks Field, Texas. (Flying Cadet) Brazilian Feds in 1930 (We lost). "Promoted" to selling model airplanes in Gimbel's, New York, during the panic. Political secretary to congressman, 1933, through June, 1939, when I resigned to devote entire time to fiction. Now living in Capon Bridge, West Virginia, as a gentleman-farmer-writer.

Browsed at following so-called educational institutions: King College, New Mexico Military Institute, Southern College, and Columbia Univ.—*Metteau Miles.*

ORLANDO RIGONI

Author of

THE COWARD

I'VE been a miner, cattle nurse, Forest Service Clerk, R. R. Steno., traffic clerk, and I spent one winter in the sad days of '32 on Boulder Dam, working two hundred feet under the river, on the river, and seven hundred feet over the river. However, I have never been up the river. Couldn't get used to routine, thus the frequent change of occupation. I was forced into full time writing by the depression, and now I am stuck with—I mean on it.

I took my first airplane ride in an old "Jenny" in 1920 when I was too young to know better. They gave me a diploma when I came down, which I still have. Seemed to be quite a feat to get down alive in those days. I never downed any planes in the war, but I've scuttled a hell of a number since—on paper.

I have a wife who never reads my manuscripts unless I threaten her with physical disfigurement (what wife will?) and two kids who keep my plot machinery oiled with their demands for bedtime stories—originals.

I have a "ranch" in Utah near the defunct mining camp in which I was born. At present I am living in the hills of Girard, fifteen miles out of Hollywood, where I sit in my doghouse on the back hill, and bat out a variety of stuff that passes for fiction. I hope, some day, to win the Nobel prize and get a soft berth in Hollywood. What writer doesn't?—*Orlando Rigoni.*

EDWARD CHURCHILL

Author of

DEATH OVER HOLLYWOOD

BORN Pasadena, Calif., June 9, 1902. Educated at public and private schools there. Later, The Principia, St. Louis, Mo., and

the University of Chicago, where I started taking commerce and administration. The professor and I took one look at some cost accounting I did and they resigned me in 1921.

Served on newspapers in Chicago, Boston, Philadelphia, New York City and Los Angeles, 1921-1927, including Philadelphia Ledger, New York Evening Post, and New York Evening Graphic.

Became advance man Gates Flying Circus, 1927, advance man Empire Air Circus, which I organized out of Syracuse, 1929, press agent Gates Aircraft Corporation, and advance man Flying Fleet (Pangborn and Herndon) 1930.

Nobody rode in airplanes, so I came to Hollywood. Trade paper man, writer, R.K.O. and Republic studios, press agent Universal and Paramount. Author of about 50 stories, one screenplay, and a novel, "Menace of Death," which is terrible.

Owned my first airplane with Duke Krantz, now New York Daily News pilot, in 1929. A standard JI-Hisso. Last year owned a Porterfield which I flew hither and yon until the bills caught up with me. Hold a student's license only because I don't fly enough to hang onto a private. Go out to Metropolitan Airport between stories and hop Al Lary's Fairchild 22, or Paul Mantz's Fleet just to prove to myself I can still set her down without bending something.—*Ed. Churchill, Van Nuys, Cal.*

P.S. Sold my first yarn to "I Confess" when 21. Hobbies—flying and gardening.

ARCH WHITEHOUSE

Author of

WARPLANES FOR SALE

ARCH WHITEHOUSE the author of "Wings of the Vortex" has been writing air adventure stories for more than ten years. He is one of the most prolific writers in the air adventure field and his work appears in books, newspapers and magazines from New York to Sydney.

In 1914 Arch left his New Jersey home when the Great War broke out and worked his way across the Atlantic to get into it at the age of 17. He saw four full years of it and what is most important spent more than two of those four years in the Royal Flying Corps, first as an observer on Fees and Bristol Fighters and later as a pilot on Camels. He has an enviable war record and a glance through the records of No. 22 Squadron will disclose that Arch is credited with sixteen official victories.

When the war ended Arch returned to the United States and fought the battles of Peace. There was very little flying to do so he kidded a New Jersey newspaper editor into thinking he was a cartoonist, and for seven years forgot aviation in his efforts to cover every big sporting event from the Dempsey-Firpo fight to the international yacht races. When Charles A. Lindbergh crossed the Atlantic in 1927, Arch wrote a short newspaper article about it and his friends found out for the first time that he had once been a flying man. He was induced to do more articles and eventually he gave up sports in 1930 and settled down to pulp fiction.—*Arch Whitehouse, Chatham, New Jersey.*

CHARLES SPAIN VERRAL Author of
THE BOY WHO COULDN'T FLY

I GOT off to a flying start by being born near Weston, Ontario, Canada, at the time the Wrights made their first power hops. Ten birthdays later, the War and the establishing of a R.A.F. flying school nearby. Spent all my spare time watching the boys pile up; got so interested in aviation that I borrowed ten bucks from my brother and bought myself a flight in a Jenny.

Thereby being the first kid in town to fly and getting myself a newspaper write-up. I still have my ticket and still remember the cushions that had to be stacked in the cockpit so I could see over the rim.

Through Upper Canada College to Ont. College of Art; then New York, commercial art work, advertising, copy writing, etc. Took a dive into the fiction world with editorial and art-directing jobs at the Clayton Publishing Company. Worked on every type of mag from slapstick humor to moon-lit love. Meanwhile writing fiction on the side grew into a full time job which took up all my time.

Sold my first yarn at the age of eleven—a thriller about chipmunks and woodpeckers. Have done series of aviation-adventure book lengths, novelettes, shorts—Boys' Life, Amer. Boy, Air Trails, Clues, Argosy, etc. . . . Like to be on the move so consequently have lived in many and sundry places and written aboard airliners, boats, trains. Once, two years ago in a Miami hospital, I figured out the perfect plot. But when I came out of the ether it was gone. I've been looking for it ever since.—*Charles Spain Verral, New York.*

STORY CONTEST

Each issue, until further notice, AIR ADVENTURES will pay to the author of the leading story in that issue, as determined by the readers' vote of popularity, a bonus of \$75.00. An additional award of \$25.00 will be paid to the author of the second best story in the issue. In this way we will reward the authors of exceptional stories and provide an additional incentive to create top-notch fiction for our readers.

However, we don't intend to leave the reader out of this. In return for filling out the coupon below, or a reasonable facsimile, listing the stories as you think they ought to be rated, and giving your reason in 20 words or more on why the leading story is the best, the editors will pay a third prize of \$10.00 to the lucky reader whose listing comes nearest to the final results. When you have read the stories in this issue, fill out the coupon and mail. Number the stories in order, one to seven, as you believe they ought to rank. Then tell in 20 words or more, just why you selected story number one for that position. Here's your chance to wield an editorial oar and get paid for doing it!

CLIP THIS COUPON AND MAIL

AIR ADVENTURES,
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In my opinion the stories in the December issue of AIR ADVENTURES rank as follows:

	No. Here
A NAZI SHALL DIE!	_____
TREACHERY OVER THE MAGINOT LINE	_____
THE GOOD DIE FIRST	_____
WINGS ABOVE WARSAW	_____
THE COWARD	_____
THE BOY WHO COULDN'T FLY	_____
DEATH OVER HOLLYWOOD	_____
WARPLANES FOR SALE	_____

Attached is my letter of 20 words or more giving my reason for selecting story number one for that position. ☐ Check here.

AIR QUIZ ANSWERS

(Quiz on page 132)

DO YOU KNOW:

1. Castor oil was formerly used in aircraft engines because it could stand the terrific heat created by early air-cooled motors. However, upon cooling, castor oil forms a sticky gum which jams rings, valves, and spark plugs. Today, mineral oils can stand more heat and lubricating systems are better.

2. Alcohol can be used as a fuel for engines, but it is of doubtful value as an aircraft fuel. During the last Indianapolis race, the alcohol burning cars used just twice as much fuel as the gasoline cars. This would mean that a plane would have to carry twice the quantity of fuel to go the same distance it now travels with gasoline. Alcohol, however, gives about 20% greater acceleration, 10% more power, and burns without leaving a speck of carbon!

3. A right hand propeller when viewed from the rear turns clockwise. A left hand propeller turns counter clockwise when viewed from the rear. The "face" of a propeller is the straight back surface which drives the air back while the propeller is moving ahead. The "back" of the blade is opposite the "face" and is usually rounded.

4. The first Dawn-to-Dusk flight was made by Lieutenant Russell L. Maughan in June, 1924 in a Curtiss pursuit ship with which he traveled from Coast-to-Coast, a distance of 2,670 miles, in twenty-one hours and forty-eight and a half minutes. The record is now held by Lieutenant Ben Kelsey who flew the same distance in a shade over seven hours!

5. In May, 1930 Miss Amy Johnson flew from London to Port Darwin, Australia, in nineteen and a half days. The London *Daily Mail* honored her with a check for \$50,000, the greatest sum voluntarily paid any woman for a feat of daring.

6. The first non-stop trans-Atlantic flight was made by Captain John Alcock and Lieutenant Arthur Brown who, on June 14, 1919, flew from St. Johns, Newfoundland to Clifden, Ireland, a distance of 1,890 miles. They flew a revamped

Vickers-Vimy bomber and their total elapsed time was 16 hours and 12 minutes—nearly 120 m.p.h.!

7. The disappearance of tri-motored ships with a nose motors is a result of wind tunnel tests which have disclosed the fact that the slip-stream set up by the nose motor interfered with the control surfaces and increased the air resistance of the fuselage. It was further found that a nose motor produced about 25% less pulling power than a wing mounted motor.

8. A step permits air to flow between the float and the water. This helps to break the surface tension created by the water. It also reduces the "contact area" of the float and thereby reduces friction.

9. Interceptor planes are important to England because she must at any moment be ready to send her planes into the air to intercept raiding Nazis. England is relatively small and is very vulnerable to enemy aircraft; therefore she has taken great pains with her anti-aircraft defense.

10. There are several Nazi bombers equipped with Diesel engines. One such ship is the Junkers Ju 86K bomber monoplane which is powered with two Junkers "Jumo 205" heavy-oil engines.

SCRAMBLED AVIATION TERMS

- | | |
|--------------|--------------|
| 1. ROTARY | 4. BALLOON |
| 2. BLIMP | 5. DURALUMIN |
| 3. ALTIMETER | |

SELECTION TEST

1. Supercharger.
2. *Columbia*.
3. Count Ferdinand von Zeppelin.
4. Lead tetraethyl.
5. Spruce.
6. Ethylene glycol.
7. Washout.
8. Chandelle.
9. *Graf Zeppelin*.
10. British single-seat multi-gun fighter.

TRUE OR FALSE?

- | | |
|-----------|-----------|
| 1. True. | 7. False. |
| 2. True. | 8. False. |
| 3. True. | 9. True. |
| 4. False. | 10. True. |
| 5. True. | 11. True. |
| 6. True. | 12. True. |

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WARPLANES FOR SALE

(Continued from Page 127)

Punch studied the river below and realized what a beautiful layout certain sections of the gorge might be for a picnic. As the gorge swung its tortuous way through the range, swirling waters through the centuries had carved out nooks and pools.

"They probably were nailed enjoying themselves in one of those spots," reflected Punch. "This guy Villegas could have sent a patrol down the side of the mountain, snatched the girls, and hurried them back up to the Ledge through the only pass this side."

The Vortex was booming along the rim of the canyon now. Punch studied the layout of the gorge and sought the ledge where Villegas was waiting for Dictator Redonda to turn up with his two hundred thousand gold pesos.

The gorge suddenly twisted snake-like, and he came out into a bluish-gray opening that was notched with cruel-looking peaks and rampart gashes. Three hundred feet below the saw-toothed bastion lay Chico Ledge. There was no question about it now. It looked like a massive slab of silver-blue granite stuck in the side of a mountain. Above it, in a majestic curve, bowed the head-wall of the mountain forming a natural shelter for the almost level rock.

A plume of smoke crept up the head-wall and painted a delicate scarf drapery against the harsh rampart. Punch could see horses picketed out along the far side near the wall. Groups of men in gay gaucho costumes stood in small groups, and he could see arms gesticulate and flash their gay serapes. One or two hurried across the ledge and disappeared into other groups near the wall. There might be a cave there.

"They've got their pickets out at the

top of the rise and along the pass," mused Punch. "No one will ever get in that way. There seems to be only one chance at all . . . and me with wax bullets!"

THERE was plenty of activity down on the ledge now, but Punch was too busy keeping his wing-tips out of the canyon walls to notice everything. Miguel Villegas turned out the guard, uncertain whether this winged visitor had come to deliver the ransom or to attack them.

The Vortex screamed her wrath as Punch swished her over at the other end, ballooned on his own air pressure off the far wall, and tore back again up the gorge. He saw the girls hurry out from the group and wave anxiously. A number of the gauchos hurriedly joined them and jerked them back near the wall.

"Keep your dirty maulers off those girls," snarled Punch.

Then with a grimace, he throttled back, did another dangerous wing-over, and let the Vortex slam herself toward the ledge. He peered along his sight bar, drew back the interrupter-gear lever, and pressed the gun controls on top of his stick.

The guns rattled and spat streaks of fire. Much of the effect was caused by the ignited wax of the fake bullets, but the gorge echoed the scream of the attack.

The girls were left standing well in the clear as the bandits hurried back to the wall and huddled against boulders and low thicket. The roar of the Allison added to the effective din. Punch pulled out just in time and bounced off the headwall on the ballooning effect of his wings. He saw the girls run out again and huddle together in the clear, near the edge of the ledge.

"Good!" beamed Punch. "If they

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20x4.60-20	2.35 1.05	31x4 2.95	1.35	34x4 1/2 3.45 1.45
30x4.50-21	2.45 1.15	32x4 2.95	1.25	30x5 3.65 1.05
28x4.75-19	4.50 1.25	32x4 2.95	1.25	33x5 3.75 1.75
29x4.75-20	5.00 1.25	34x4 3.35	1.35	35x5 3.95 1.75
29x5.00-19	2.55 1.25	32x4 1/2 3.35	1.45	35x5 3.95 1.75
30x5.00-20	2.55 1.25			

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Size Rim	Tires Tubes	Size Tires Tubes	Size Tires Tubes	Size Tires Tubes
28x5.25-18	2.90 1.35	30x3 1/2 \$4.25	\$1.95	38x4 1/2 \$10.95 \$4.65
29x5.25-19	2.95 1.35	30x5 3.95	1.75	38x7 10.95 4.65
30x5.25-20	2.95 1.35	32x5 4.25	1.95	36x8 11.45 4.95
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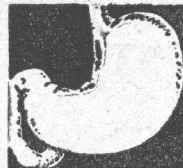
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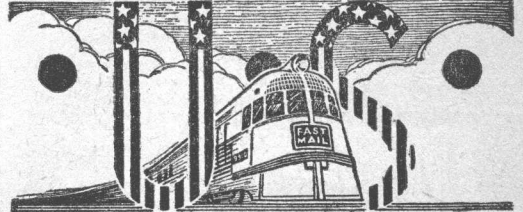
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can only remember what we were telling them about the wax bullets."

He screamed around on one wing tip, settled the nose of the Vortex on the far end of the ledge, and let off another long burst of blank cartridges. The bandits scurried like rabbits for the narrow pathway that led up the rocks to the pass.

He smoothed out, raced past them, and sensed the flac-flac-flac of rifle fire from behind the rocks. He zoomed, half-rolled at the top, and came around again just missing a particularly jagged pinnacle as he slithered out of trouble.

He reached forward, jerked the retracting gear lever down, and watched the light on his instrument board change from red to green. He saved her again as an up-draft of air came somewhere below and threatened to slither him into the headwall above the ledge. He peered over, saw the hungry green waters hurtling over the rocks.

He twisted her again and got another long burst off, directly over the heads of the two girls who huddled together near the edge of the ledge. The bandits at the other end scurried for shelter and he saw the wall of the canyon loom up at him once more.

"Wheels down now," he gasped. "Can't cut it so close. Going to try this time."

The Vortex came around and Punch swore he could feel her bounce one wheel off the wall. He took a wild chance, lowered his flaps to the full, throttled back to a mere murmur and headed back for the edge of the ledge which was now forty or fifty feet above his line of vision.

"Got to make it somehow," he half groaned as he sensed the Vortex mushing along under the effect of the air brakes. He was flying on the throttle now, easing her up, the air-speed needle slipping back dangerously close to the

stall point. He was slowing fast.

The green waters below—the jagged rocks—a series of slow hopeless spins—wing-tips being crushed against the cruel walls—the death cry of wrenched dural—any minute now.

The rim of the ledge came toward him. His stomach muscles tightened and almost strangled him. One hand on the throttle, the other with the fingertips resting lightly on the top of the control column.

Then, with the rim of the ledge threatening to slice the Vortex through the middle from prop shaft to fin-post, Punch started to say a prayer, eased the stick back, lifted her over, and then fish-tailed like mad on the rudder-pedals.*

She flipped over, held a stall for a fraction of a second and bounced hard. The oleos screeched and the pneumatic chambers let out a wail. Rifle shots somewhere, the flutter of dainty dresses, the gleam of chestnut hair, and the happy cries of two feminine voices.

Following came the hoarse cries of Villegas' men. They swarmed forward from the caves and rushed the plane, in full pursuit of the girls. Punch swore and lifted his sights. He pressed the levers, the Brownings roared. Fiery steamers lanced from the muzzles, and screams of fright and pain came from the leading bandits. Several of them dropped in their tracks, scalded by hot wax full in their faces, and the others, seeing what apparently was bloody slaughter, dropped hastily to the ground. They whipped up their rifles and began firing.

Steel-jacketed bullets whined and

*Fish-tailing is a landing maneuver frequently used to rapidly reduce the speed of a ship which is going too fast for a safe landing. The pilot really skids his ship by alternately using the right and left rudder-pedals. This throws the side of the fuselage into the slipstream and rapidly slows down the forward motion.—Ed.

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howled off the body of the ship, ripped through the fuselage.

"Down, girls!" screamed Punch hoarsely. "Get down!"

The two girls, white-faced, flung themselves prone, and Punch swung his ship around sweeping the attackers' positions with his hail of wax. Dust spurted from the ground and the rifle fire ceased. Villegas' men, panic stricken, turned and raced back toward the caves.

"Yellow-bellies!" exulted Punch, sending a final burst after their fleeing forms.

He let the Brownings rattle every shot left in the cans as the girls came running up. They climbed on the wing root and scrambled over the edge of the rear cockpit. More rifle shots and more flashes of gaudy serapes, but they were aboard, ruffled, perspiring, and squealingly excited.

"Hang on!" bellowed Punch. "Here we go!"

THE Vortex stiffened again as the throttle went forward. She fought to get her head and hurl her cargo at the grim curved wall. Punch held her nose dead on the curve of the headwall, hoiked her a trifle and then let her lift on the flaps until her wheels were clear. With a last few words of a prayer, he dipped the starboard wing down over the edge of the ledge, rammed the throttle up the last segment of the quadrant, and closed his eyes.

Somehow there was just room. The wing tip went down on one side and pointed down into the gorge. The other raised sufficiently gave her clearance off the wall and they were floundering out into the gorge.

There was another squeal from behind, Punch gave her stick and rudder. The Vortex cleared the end of the gorge and hurtled around climbing madly to

get over the edge of the flinty sentenels. One more turn up and down while the bandits frantically peppered at them with their rifles. They were over the edge in the clear.

"You remembered!" bellowed Punch over his shoulder, to the girl who was standing up with her hands on his shoulders.

"Remembered what?" Zilda Redonda asked puzzled.

"I was shooting wax bullets!" gasped Punch clearing the effects of the swirling winds that came up from the gorge. "We told you about the dog-fight business, last night."

"Wax bullets? No, we didn't know. I just figured you wouldn't shoot at us."

"Oh, my sister's cat's aunt!" said Punch drawing his hand across his brow. "Do you mean to say you stood out there like that believing I was actually shooting bullets?"

"Weren't you? The bandits though you were," explained Zilda.

"I know. That was the idea, but, I thought you would remember what we were telling you last night. You're a couple of brave, nutty kids, if you ask me."

"We *had* to stand out there, if you were going to rescue us, didn't we?"

That was too much for Punch. He steadied the Vortex, headed her for Rolario and half turned in his seat. "Look here! Do you mean to say you *knew* I would try to get on that ledge and get you off?"

"Certainly! That was the only way we could be taken off, wasn't it? I knew you'd do it that way," Miss Redona said sweetly and Punch gave it up as a bad job.

"You win," he said. "The guy who marries you is certainly in for a swell time!"

"You should know, Mr. Woodward,"

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she said in his ear. "You should know."

"What a future!" said Punch completely surrendering.

They arrived back at the Rolario air field and rolled up to the test bench as the amazed Staff, uniformed troops, and Dictator Redonda walking on rubbery legs surged toward them.

Punch was actually all in, but the two young women bounded out of the Vortex cockpit with very little ceremony. Redonda clutched at his daughter, held her before him and burst into tears.

"You are safe?" he spluttered, terming but supremely happy.

"Of course. Mr. Woodward only used wax bullets!"

Redonda let out a muffled squeal, hung on to his daughter, and started all over again. Miss Derwent explained what had happened and how Punch had actually made a landing on Chico Ledge to rescue them after chasing Miguel Villegas' bandits to cover with wax bullets. Even Boppo Blaine was amazed at that, but he had retained his presence of mind long enough to have rushed back to the hotel to get Punch's order book and a brand new fountain pen.

"Of course," snapped Redonda. "Of course. We must have the Vortex. It is a very good plane. It shoots down the Italian Bredna without firing a shot and then it chases that Miguel Villegas to the hills with nothing but wax bullets. You will dine with us tonight, Mr. Woodward?"

"You sign that order first. We'll talk about eating later. And don't forget, we get paid in gold pesos. We're dining at La Luna tonight and they don't take gasoline coupons there, remember!" said Punch climbing out.

Dictator Redonda took the blank, turned to Punch with a smile. "We'll buy 200 of your ships, Senor Woodward, on one condition."

"And that is?" queried Punch suspiciously.

"That you deliver them yourself, and sign up with our War Department to take personal charge of an aerial campaign to liquidate this bandit Villegas who dares to kidnap my daughter."

"It's a deal," responded Punch almost before Redonda had finished. "But I take it for granted that kidnapping your daughter is not a capital offense to be applied universally."

At the laughter that followed Punch knew everything was going to be mighty rosy.

THE END

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Reader's Page

PROGRESSIVE

Sirs:

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I like air stories, and I hope you'll be progressive enough to realize we want modern stories as well as 1918 war stories.

Best of luck!

HENRY GADOUS,
2618 W. Michigan St.,
Milwaukee, Wisconsin.

Progressive?! You certainly hit the nail on the head. We've got some Nazi air-war stories in this issue that ought to have you cheering. And modern? Well, there isn't an "old" story in the issue. Let's hear what you think of AIR ADVENTURES when you've read this first issue, Mr. Gadous.—Ed.

SUGGESTED WRITERS

Sirs:

Rumor has gone out about your new air magazine. I'm in favor of it especially that a new world war has broken out. That ought to give such writers as Arch Whitehouse, Rigoni, George Bruce, etc., something to write about! I'll be looking for the new magazine.

ALLEN FRANK,
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WANTS DEPARTMENTS

Sirs:

I read in the writers magazines that Ziff-Davis plans a new air magazine. May an ordinary reader bust in and give you a few hints on what he likes—and what he hopes he'll see in the new baby?

Well, how about some nice departments, not all fiction? Stories are the backbone of the magazine, certainly, but in aviation there's so much going on that we can't get anywhere except in a technical magazine.

How about a readers' department, a quiz, some illustrated features, etc., etc.?

I'm looking forward to seeing an up-to-date magazine!

GEORGE SAUNDERS,
122 North Main Street,
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Sirs:

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HE FLIES AND READS

Sirs:

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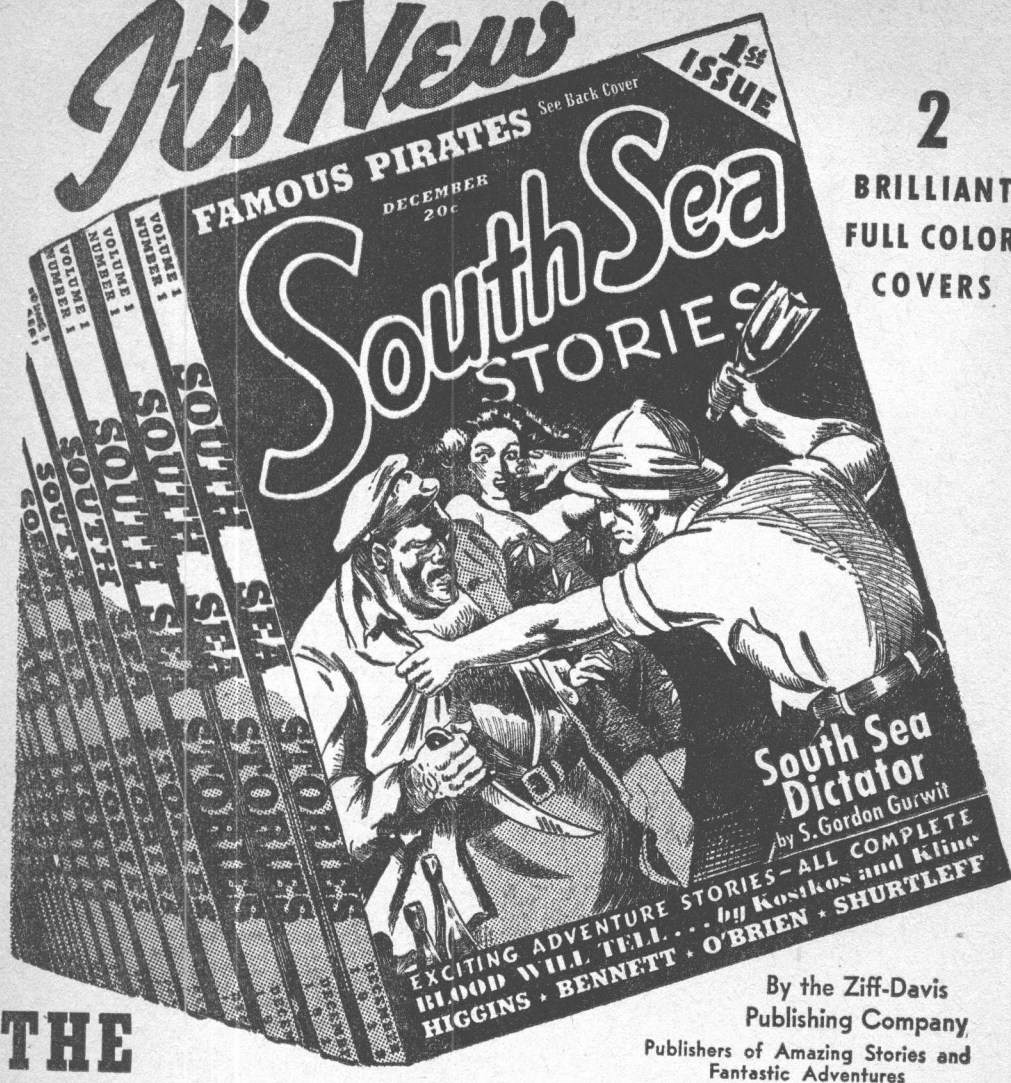
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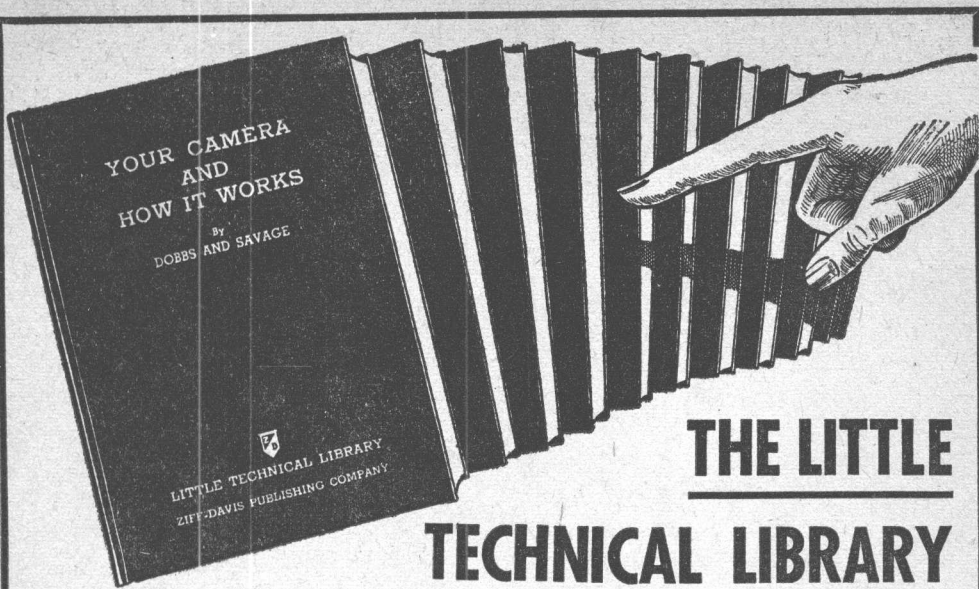
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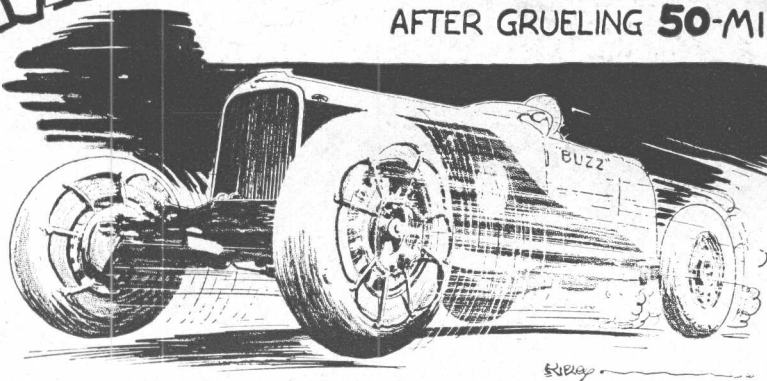
CITY & STATE

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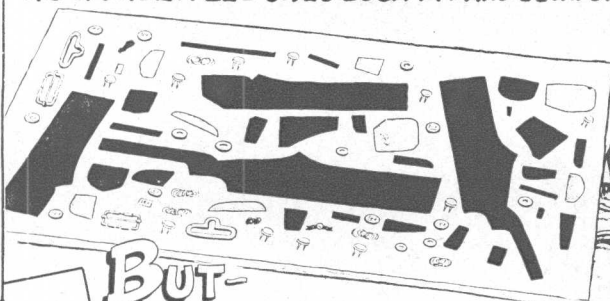
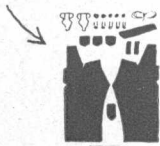
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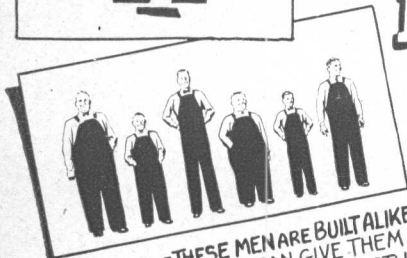
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Aerial tactics of 1914-1918 are completely out of date for the European War of 1939. Fighting takes place over a widespread area, instead of exclusively at the Front. Enemy bombers are sighted over Warsaw, Berlin, Paris, London. Bullet fast interceptors rise to the defense. In this scene, the British Bristol Blenheim bombers are flying over strategic positions deep in German territory. With a range of 1900 miles, a speed of 250 m.p.h., they fly in tight formation to cover each other's "blind spots." They are almost impregnable. The Nazi defense is to attack with Messerschmitt fighters, flying in formation as a single unit, diving at 400 m.p.h. for a terrible instant of concentrated fire. The days of individualistic dogfights are over; today it is formation against formation in deadly mass combat.

For Details, see Page 129.

