Jimmy Collins' book 'Test Pilot' is available to read free online:

http://www.gutenberg.org/files/34589/34589-h/34589-h.htm

This is most likely the only source of any real biographic information on Collins' rather short life. He died dive testing the rather nasty Grumman F3F prototype:

https://en.wikipedia.org/wiki/Grumman\_F3F

For your convenience, his text, downloaded from the *gutenberg.org* Web site at the link above, has been enhanced with internal hyperlinks from the Table of Contents to the individual chapters, and back again. The photograph, below, is not part of the book.

# **TEST PILOT**

by JIMMY COLLINS

HAPPY LANDINGS TO

CAPTAIN JOSEPH MEDILL PATTERSON (The News) GEORGE HORACE LORIMER (Saturday Evening Post) J. DAVID STERN (New York Post)



Jimmy Collins, Lockheed Sirius NC116W, S/N 152. July 15, 1930. Collins had failed to set a new cross-country record after flying from Burbank to Roosevelt Field. Time given for his attempt on July 4 was 16 hours and 10 minutes, which was about 2 hours longer than Lindbergh's current record set in his Sirius.

## **FOREWORD**

Jimmy Collins used periodically to try to change his name to Jim Collins, but he never could make it stick. There was something about him that made everybody call him Jimmy. He did sign his wonderful article in the Saturday Evening Post about dive testing "Jim Collins," but his friends kidded him so much about wanting to be a "he-man" that he went back to Jimmy in his articles for the New York Daily News.

The article from the Saturday Evening Post, "Return to Earth," which is printed in this book, is the most extraordinary flying story I have ever read, and as a newspaper and former magazine editor I have read hundreds of them, from "The Red Knight of Germany" down.

Jimmy wrote his own stuff—every word of it. Not one line has been added to or taken from any of the stories that appeared in the Daily News. If a story had any unkindness in it, or reflected on any other pilot's ability, Jimmy omitted or changed the name of the person under reproach.

Jimmy graduated from the army training schools of Brooks and Kelly fields, in the same class as Colonel Charles A. Lindbergh. Collins and Lindbergh were two of the four selected for the pursuit group, which means they were considered to have the greatest ability in their class. Jimmy afterwards became the youngest instructor at Kelly Field.

I was privileged to receive some instruction from Jimmy. He was a fine teacher, making you know precisely what he wanted and why. He told me promptly that I lacked coordination. He said,

"Every student lacks coordination, but you lack more of it than any student I ever saw." In driving a car, you can go forward or backward, left or right. An airplane cannot go backward. It can go forward, right, left, up, down. The coordination that Collins kept talking about meant that when, for instance, you were going up and to the right, you should do it in one perfect arc between the two desired points, not in a wavering line that sometimes bulged and sometimes flattened itself out.

Pretty near any dub can be taught to fly some if he has patience enough and can afford to pay for two or three times as much instruction as the ordinary man gets. But nobody not born for it can learn to fly like Collins. His rhythm and reflexes were like a good orchestra. He was just a natural aviator. He had the wings of an angel all right, and he was more at home, more comfortable, more at peace with himself and the world in the air than he was on the ground, where he sometimes thought himself to be a misfit.

Jimmy talked as well as he wrote, drank less than most aviators, and that's not so much, and smoked a considerable number of cigarettes.

Until the last couple of years, when the depression and his trade had deepened the lines in his face, he might almost have been called "pretty," though it would have been better not to say that to him. He had light wavy hair, blue eyes, fine white teeth, smiled a good deal, and as far as his appearance went he could have been a romantic hero in Hollywood.

He was the most fearless man I ever knew. No, I take that back. I have known other aviators whom I considered to be without fear. Collins was as brave as any of them. Even at best, in spite of what its adherents say, flying is not a particularly safe business, and Collins chose the most dangerous branch of it, that is, dive testing. "Return to Earth," in this book, explains that. He said he did it for the money, which was partly true, but I don't think entirely so. I think he liked to pull the whiskers of death and see if he could get away with it. Anyhow, he had made a resolution that the dive that killed him should be his last one. Whether he would have kept that resolution, I doubt. I think he liked the thrill of having everybody on the field say, "Jimmy is dive testing a bomber this afternoon."

The story, as told by McCory, the photographer, who had a desk near to him, is that he said to Collins, "Jimmy, you are making some money now out of your newspaper articles. Why don't you stop this test racket?" And Collins answered, "I will. I was under contract to do twelve dives on this navy ship, and I have done eleven. The next one is going to be my last." Then he paused, smiled his bright smile, and said, "At that, it might be."

—JOSEPH MEDILL PATTERSON

## **CONTENTS**

TO WHOM IT MAY CONCERN

RETURN TO EARTH

COLLISION, ALMOST

HE HAD WHAT IT TOOK

DRY MOTOR

**IMAGINATION** 

I SPIN IN

**BUSINESS BEFORE FAME** 

**EVERYTHING WRONG** 

A SHOWY STUNT

DEATH ON THE GRIDIRON

NOVICE NEAR DEATH

**HUNGRY'S SHIP BURNED** 

**BACK-SEAT PALS** 

WATCH YOUR STEP!

FLYER ENJOYS WORRY

WEATHER AND WHITHER

I SEE

WON ARGUMENT LOST

MONK HUNTER

COULDN'T TAKE IT

GOOD LUCK

WILL ROGERS IN THE AIR

HE NEVER KNEW

**BONNY'S DREAM** 

**COB-PIPE HAZARDS** 

WHOOPEE!

**BUILDING THROUGH** 

MUCH!

**CROSS-COUNTRY SNAPSHOTS** 

REMINISCENCE

MEXICAN WHOOPEE!

IT'S A TOUGH RACKET

**ALMOST** 

RUN! RUN! RUN!

HIGH FIGHT

**GESTURE AT REUNIONS** 

AS I SAW IT

WAS MY FACE RED!

**CO-PILOT** 

**ORCHIDS TO ME!** 

**RECOVERY ACT** 

"A ROSE BY ANY OTHER NAME...."

"YES, SIR!"

MOONLIGHT AND SILVER

FIVE MILES UP

AËRIAL COMBAT

WINGS OVER AKRON

TEARS AND ACROBATICS

ACROSS THE CONTINENT
THE FLYER HIKES HOME
KILLED BY KINDNESS
THE FIRST CRACK-UP
A POOR PROPHET
TOO MUCH KNOWLEDGE
HIDDEN FAULTS
"DEATH TAKES A HOLIDAY"
CONFESSION
GONE ARE THE DAYS
"LOOK WHO TAUGHT HER"
A FAULTY RESCUE
HELPING THE ARMY
APOLOGY
I AM DEAD

## TO WHOM IT MAY CONCERN

I am an American citizen. I was born in Warren, O., U. S. A., on April 25, 1904. I am the youngest of the three remaining children of a family of seven. My paternal grandfather came to this country from Ireland. He was a basket weaver by trade and a Protestant by religion. My father was a bricklayer by trade. He died when I was five. My mother, whose people hailed largely from Pennsylvania, scrubbed floors, took in washings, sewed, baked, made handiwork and sold it, worked in restaurants, and so managed, with the help of charity, relatives, and my older sister when she got old enough to help, to send me to grammar school and through two years of high school. Then she died.

I was sixteen. My sister was unable to carry me further. I went to work in the boot-and-shoe department of the Goodrich Rubber Factory at Akron, O.

I worked there a year and found conditions and my prospects intolerable. I applied for permission to work a part shift at night. It was granted. This reduced my income but allowed me to go to school in the daytime.

For three years I worked at night in the factory and went to school by day. I completed my high schooling and a year of college (Akron, O.) in this manner.

Then I applied for entrance to the United States Army Air Service Primary Flying School, was examined, found qualified, and admitted. One hundred and four others were admitted to this same class. Charles A. Lindbergh was one of them. Our status, as well as that of the other 104, was that of an enlisted man with a flying cadet rating.

A year later, in March, 1925, I was one of eighteen who graduated from the Army Advanced Flying School, Kelly Field, San Antonio, Tex. The rest of the 104 had been disqualified during the course, only the eighteen most apt being kept. Of these eighteen who graduated, four had been chosen to specialize in pursuit flying. Lindbergh and myself were two of these four. Upon graduating from the Advanced Flying School, I was discharged from the army, and commissioned a second lieutenant in the United States Army Reserve Flying Service (now Air Corps).

I went back to Akron after getting my commission as a reserve flyer and discovered that there was no market for my newly acquired ability. I tried to get a job as mail pilot with N. A. T. in Cleveland but was told I didn't have enough experience. I tried to get a job with Martin Airplane Company in Cleveland and couldn't. I was almost broke. I decided to return to the rubber factories and go back to school the next fall. I got a job with the Goodyear Company, in the factory.

But I couldn't take it any more. I quit the job in two months and took my one bag and my eighty dollars and went to Columbus, O., where there was a reserve flying field. I flew a couple of weeks there, sleeping in a deserted clubhouse and eating at the gas station across the street. I was earning no money, of course, the ship being available to me for practice only. So I applied for a two weeks' tour of active duty at Wright Field and got it. I was paid for that. While there I applied for a six months' tour of active duty at Selfridge Field, and also got that. I was paid an officer's (second lieutenant) salary on this duty.

At the expiration of the active duty tour at Selfridge I applied for another six months but couldn't get it because there was no more money available for that purpose, but I was told that there was some cadet money left over and that if I was willing to reënlist as a cadet they could keep me there in that status for another six months. I decided I would try to get on with Ford first, and if that failed to accept the cadet status.

Ford was just getting under way with his tri-motor aviation venture at that time. He had an airplane factory at Dearborn Airport. Selfridge Field is just outside of Detroit, so I moved into Detroit and applied for a job as pilot at Ford's Dearborn Airport. I was told that the only way I could get on as pilot was first to get a job in the automobile plant, and that I would later be transferred to the airplane plant, and still later to the airline between Detroit and Chicago as pilot. After standing in long lines every morning for a week I finally got a job in the automobile factory. I was given a badge with a number and told to report to such and such a department the next morning.

Early on the morning I was to start work at the Ford factory I got on a street car and started for the plant. I had on work clothes and my badge. Long lines of workers sat on either side of me. Across the aisle another long line sat facing me. They sat with hunched shoulders and vacant faces, dinner pails on their laps, eyes staring lifelessly at

nothing. The car lurched and jolted along, and their bodies lurched and jolted listlessly like corpses in it. A sense of unspeakable horror seized me. I had forgotten the rubber factories. Now I remembered them again, but I didn't remember anything as horrible as this. These men impressed me as things, not men, horribly identical things, degraded, hopeless, lifeless units of some grotesque machines. I felt my identity and my self-respect oozing out of me. I couldn't become part of that. I couldn't. Not even for a short time. Not even long enough to get into the airplane factory and then to become pilot. Not even for that. I wouldn't. Not for anything. Life was too short. Even cadet status in the army was better. I got off the car at the factory. I watched the men file into the factory. I shuddered across the street. I caught the next car back to town. It was like getting away from a prison I had almost been put into. I went out to Selfridge Field and enlisted as a cadet.

I began to think. What would I do when the six months was up? Go back to Akron, the factories, and school? I couldn't stand the thought of the factories. A college degree wouldn't be worth it. Besides, I would drop out of aviation. But how? Stay in aviation? Stay in the army? How? As an enlisted man? I didn't like that thought. As an officer? It would be difficult to get a regular commission, and even so, where would I get in the army? Go outside and take my chances? The outside was a cold unfriendly place. I was afraid of it by then. Your percentage chance was small outside. The army was warm and secure. O. K. I'd try to get a commission.

Two months after my sudden decision not to work in a factory I passed my army exams and got my commission. But unfortunately I began to read. I had made up my mind to get the equivalent of a liberal college degree by reading. And I accidentally ran across Bernard Shaw. I was twenty-one years old. All my life I had been keenly aware of contradictions in life all around me, and all my life they had worried me and I had wrestled with them, attempting to resolve them in my own way. Shaw opened a whole new world to me which I explored eagerly. I was transferred to Brooks Field, Tex., as an instructor. I had a lot of fine times. I continued to read Shaw. The idea of socialism struck me immediately as eminently just. I agreed with the wrong of capitalism. I had already thrown over religion. But I remember that the whole experience left me unsatisfied. The question of what to do about it kept arising in my mind. And I remember the inadequacy I felt for the only implied answer in Shaw's works I could find, that to preach was the answer, and hope that the other preachers in other generations would take up the good work, until some hazy future generation, in the dim and distant, the beautiful, and perfect beyond, would benefit from the preaching and start living by it—or maybe it would just happen gradually, evolutionarily, as lungs develop out of gills.

By 1928 I was still in the air corps, instructing, and reading Shaw. Early in that year I was transferred from Brooks Field, San Antonio, Tex., to March Field, Riverside, Calif., and again assigned to work as instructor. I considered myself a Socialist by then. I also considered

myself a pacifist. To find one's self a convinced Socialist and a pacifist and at the same time a professional soldier, at the age of twenty-four, places one, if one is conscientious, as I was, in a considerable dilemma.

In the days when I was instructing army flyers and reading socialism I still had something that I fondly and innocently called morals, an evil left-over from my early and vigorous religious upbringing. So I decided that the only moral thing I could do was to get out of the army. Several other practical considerations supported my "morality" in this decision. One was the fact that I had had four years of military training as an aviator. The other was the fact that Lindbergh had flown to Paris, and, as a result of the stimulus that aviation received from the publicity given Lindbergh upon his return, there existed a commercial market for my flying ability, in which I could at that time sell that ability for a much higher wage than the army was paying me for it.

Accordingly I resigned my commission in the Air Corps in April, 1928, and accepted a job as airplane and engine inspector for the newly found aeronautic branch of the Department of Commerce, and, after a little schooling at Washington on the nature of my new duties, and after flying Secretary McCracken on a long tour around the country, I was assigned the charge of the Metropolitan area and headquartered at Roosevelt Field.

I found the post very uncongenial because I found myself with no assistant, swamped with more work than I could adequately have handled even with a couple of assistants, and because there was too much paper work and office work and too little flying. So, six months later, after receiving a pay raise and a letter of commendation, I resigned from the department and I took a job with Curtiss Flying Service, which I found much more congenial because it was almost purely a flying job.

My work there soon attracted the attention of the Curtiss Airplane and Motor Company, and I was asked to become their chief test pilot, which I did in November. 1928.

I worked for them for six months, mostly on military stuff, and when I resigned to take what I thought was going to be a better job, I was asked to stay on with them.

For almost a year after that I was vice president of a little aviation corporation. The company didn't do well. The depression was in full swing. I didn't agree with the company policies. Early in 1930 I resigned.

After my resignation from the vice presidency of the aviation concern I did private flying—flying for private owners of aircraft, rich men—and I experienced wide gaps of unemployment between jobs. But since I left the army I had been reading and thinking about "social" matters. I ran across the "radical" press in New York. I began reading Walter Duranty

in the Times. I read books on Russia. I fought against the idea of communism. It seemed stupid and crude to me. But step by step—I stubbornly fought all the way—the beautifully clear logic of communism broke down all my barriers, and I was forced to admit to myself that the Bolsheviks had the only complete and effective answer to the riddle of the world I lived in.

I began to consider myself a Communist. My bourgeois friends, and they ranged from the very elite to the petty, thought I was nuts. I, in turn, thought they were unreasonable and talked myself blue in the face trying to convince them of it. I became quite a parlor pink. It took me a couple of years to realize the futile ridiculousness of my antics, of attempting to turn the bourgeoisie to communism. It took me that long because I didn't at first grasp the full implications of the class basis of my convictions and did not realize that, like a fish out of water, I was a born and bred proletarian justified by peculiar circumstances with a position of isolation from my class and with contact with an alien class.

And when that realization began to dawn on me—dimly at first—the question of what to do about it again arose in my mind.

I pondered the matter a long time. I was already over the romantic notion that the thing to do was to go to Russia, as I had had a spell of thinking. I sensed that that, in a way, would be running away. It occurred to me to join the party, but I didn't know exactly how to go about it or even if I could. I furthermore didn't get a very clear picture of just what good I could do even if I did. I was also, having got married and begun a family in the meantime, pretty much absorbed in personal adjustment and just the plain economic details necessary to existence.

It finally occurred to me that I could do something for the radical cause right where I was, in aviation, instead of going to Russia. But what? And how? I didn't know. I decided that there were undoubtedly people in the party who did. If you want to build a house, go to an architect. If you want to build an airplane, go to an aeronautical engineer. If you want to build a revolutionary organization, go to a revolutionary leader. It was a naïve but a direct, an honest, and a logical method of reasoning, you must admit. So I found out from the Daily Worker where headquarters was and went down.

I felt a little ridiculous and abashed when I got there. I sensed, rather than reasoned, that I was suspected because of my approach. It didn't bother me enough to stop me, because I was sincere, but it did embarrass me.

Shortly after that, at Roosevelt, I accidentally ran across a mimeographed four-page paper, the organ of a club of aviation students. I picked it up and idly began reading it. It sat me bolt upright in my chair. It expressed everything that I felt. I had thought I was an

exception, that nobody else in the whole game felt as I did about economic, social, and political matters. But this paper indicated that I wasn't a complete exception. It excited me terrifically. I noted the name of the paper and the name of the club that had issued it. I had never before heard of either one. I ran around madly asking everybody I knew what the club was, where it was, who it was. I couldn't find out much, but I did find where the club rooms were and when meetings were held. I went down to the next meeting. I joined up.

Out of that organization grew another, on a broader basis, planned to move adequately to meet the needs of the workers as a whole in the industry, which was still small, and of which I was an active member.

Word of my organizing activities with this group got around to my boss, and that, together with other things, was the reason for my being fired from my job of private pilot for a certain very rich man.

After being discharged for radical activity by my rich boss I learned discretion, which, somebody said long ago, is the better part of valor. And I did not lose my valor: I continued to work with the disapproved group. But I was out of a job, and I had a wife and two small children to support. I had also learned a few things, so that I knew them now utterly, and not only intellectually, as I did a while ago. One of them is the class basis of my convictions. I began inquiring, and I learned that I was the only pilot of my training and experience that I knew of who had a working-class background. All others that I knew, and also a good many mechanics, had middle-class background. That accounted for the different way I saw things.

I was now face to face with a peculiar problem. Unemployment was rampant in this industry as in every other. In looking for a job, I discovered that the Chinese government (Nationalist-Nanking and Canton) was looking for a few men. I submitted qualifications to a high-ranking Chinese in this country and was answered by him that owing to my military and testing experience I was eminently qualified, and that he would set machinery in motion immediately to get me a job. China, of course, was very busy building up a Nationalist air force. I would be used as an adviser in their school and factories.

But I was a Communist. Would the Chinese Nationalist Air Force, which I would be helping to build up, be used against the Chinese Soviets? Against the U. S. S. R.? And still I must earn a living. What if several prospects I had for jobs failed to materialize before the Chinese proposition did? Should I or should I not go? If I went, what rôle should I play? How dangerous would my position be? Would I be of more value here, now that our organizational efforts were bearing fruit? And so on did the questions in my mind run.

At that time my wife and two small children were on the farm with my mother-in-law and father-in-law in Oklahoma. What should I do?

#### RETURN TO EARTH

I was sitting around the restaurant at Roosevelt Field Hotel with the rest of the unemployed pilots, smoking, talking, sipping the eternal cup of coffee, hoping that something would turn up, when the phone rang and the girl who answered it called for me.

"It's long distance," she added as I brushed past her on my way out to take the call, and I couldn't help running the rest of the way. I had put in word at a factory some time ago if anything turned up to let me know. Maybe my luck was changing.

"Hello," I said eagerly as I grabbed the receiver, and before the familiar voice on the other end told me I knew I was talking to the guy who hired the pilots for the company.

"I've got a job for you," he announced, "demonstrating one of our new airplanes for the navy."

"What kind of a demonstration?" I asked warily.

"A dive demonstration," he said. I knew what that meant all right. Ten thousand feet straight down, just to see if it would hang together. I wasn't so sure my luck was changing after all.

"What kind of a ship?" I asked. I hoped it wasn't too experimental. I had dived airplanes before. The last one, six years before, I had dived to pieces. I still remembered the exploding crack of those wings tearing off. I remember the dazing blow of the instrument board as my head had snapped forward against it from the sudden lurch of the midair failure, and dimly then the slow, limp slumping into unconsciousness. I remembered how I had come to, thousands of feet later, and leaped my way clear, only to be threatened by the falling wreck on top and the rushing-at-me earth beneath. I remembered the tumbling, jerking stop as my chute had opened after the long drop, and how startlingly close the ground had looked. I remembered how white and safe against the blue sky those billowing folds of that chute had looked, and then immediately the awful heart-pound, breath-stop fear that that milling wreck would take a derelict pass at it. I remembered the acute relief of hearing the loud report that told me the wreck had hit the ground, and then the "What if that had clutched me!" when they told me afterward how close it really had come.

"It's a bomber fighter, second model, first-production job, a single-seater biplane with a seven-hundred-horsepower engine," the man at the other end said. That was encouraging anyway. It wasn't the experimental job.

I had heard that another free-lance test pilot like myself had recently jumped out of a ship he had been diving. His prop had broken and torn his motor clear out of his ship. He had got down with his chute all right, but he had hit the fin as he had gone past the tail surfaces getting out of the wreck. He had broken a couple of legs and an arm and was in the hospital at that moment. I knew he had been doing some diving.

I wondered why they didn't use one of their own men. They had a very fine staff of test pilots right there at the factory. "What's wrong with your pilots?" I asked.

"Well, to be frank about it," was the answer, "while we really don't expect any trouble with this ship, because we have taken every possible precaution that we know about, still, you never can tell. Our chief test pilot now, you know, has done seven of these dive demonstrations. We feel that that is about enough to ask one man to do on a salary, and he feels that he has had about enough anyway. None of the rest of our men have ever done any of this work before. Besides, why should we take a chance on breaking up our organization if we can call a free lance in?" So that was it! After all, why shouldn't they look at it that way?

I thought of the already long absence of my family. My wife and my year-and-a-half-old son and my half-year-old daughter were still on my father-in-law's farm in Oklahoma, where I had sent them in the spring to make sure they would be able to eat during the summer. If I could make enough money——

"How much is there in it for me?" I asked.

"Fifteen hundred dollars," he said. "If the job takes longer than ten days we will pay you an additional thirty-five dollars a day. We will insure your life for fifteen thousand dollars for the duration of the demonstrations and provide for disability compensation. We will also pay your expenses, of course. So, if you are still free, white, and twenty-one—" His voice trailed off, posing the question.

"Well, I'm still free and white," I answered, "but I am no longer twenty-one. I'm thirty now, you know. Old enough to know better. But I'll take your job."

"We will wire you as soon as the ship is ready," he said and hung up.

I came back to the gang at the table. They were still sipping their coffee, smoking, talking, and undoubtedly hoping for an odd job to come in.

"I've got a job," I announced, beaming.

"What kind of a job?" they all piped up.

"Diving one of the new fighters for the navy," I replied as casually as I could.

"Boy, you can have it!" they chorused.

"I've got it," I snapped. "And anyway," I added, "I won't be dropping dead of starvation around here this winter."

They razzed me for a while, and I razzed them back. They wanted to know what kind of flowers I wanted. I wanted to know if they were planning on just breakfast or just dinner when they got down to that one meal a day this winter.

After a while, as soon as my elation in contemplation of the fifteen hundred bucks wore off, I didn't feel so cocky. I really might get bumped off in that crate. Maybe I could have got by without taking the job.

I remembered that dive of six years before. It had been different then. It hadn't occurred to me at that time that airplanes would fall apart. Oh, I knew they would. I knew they had. It was something, however, that had happened to other test pilots and might happen to some more, but not to me.

I remembered the times I had jumped, startled wide awake from sleep in the nights, not immediately after that failure, but some months later. No special dreams of horror. Just the delayed action of some subterranean mechanism of fright in my subconscious brain. I had been honestly convinced during my waking hours up to that time that that failure had not made much of an impression on me.

I remembered the subconscious fear of just normal excess speed that had grown on me since then. I wouldn't nose an airplane down very much from level cruising speed and open the throttle coming in from a cross-country, for instance. A couple of times when I had done it without thinking, I had found myself practically bending the throttle backwards to kill the speed when I had suddenly become aware of it.

These things convinced me that that failure had made a deeper impression on me than I had thought. I realized it the more when I contemplated these new dives I was about to do. I knew I was more afraid of them than I would admit.

"Death in the Afternoon, or Reunion in Oklahoma," I thought. You've got to take some chances. I didn't see how I was going to get the money to bring the family back any other way.

Besides, I thought I could beat the game by being smart. I knew a lot of boys who hadn't been able to, and I knew they had had good heads on their shoulders.

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Two weeks later I stepped out of a taxi in front of the hangar at the airport. Some experimental military airplanes were sitting outside. It was good to see military airplanes again. There is something about military airplanes—something businesslike.

I entered the hangar office. The engineers were waiting for me. I knew most of them from working with them before. They were all still just pink-faced kids. But I knew they were bright kids. They knew their stuff and had all had quite a lot of experience.

They greeted me with a queer sort of smile on their faces, the way you greet somebody you know is being played for a sucker. Maybe they were right. Undoubtedly they were. But I resented that smile in a mild sort of way.

Bill was there. I had known Bill since before he had become their chief test pilot. He had that same queer smile on his face.

"Hey, Bill," I said to him, greeting him with a quizzical smile answering his own, "why don't you dive this funny airplane?"

"I got smart and chiseled my way out of this one," he said.

"It is a sap's game," I agreed with him. "But starvation is dangerous too." He laughed, and we all laughed.

He studied me for a minute. We hadn't seen each other in a couple of years. Finally he said soberly, "You've grown older, Jim."

"Yeah, I've grown older, Bill," I answered him banteringly, "and I want to grow a lot older too. I want to have a nice long white beard trailing out in the slip stream some day. So I hope you guys are building good airplanes for diving. By the way, let's go out in the hangar and take a look at the crate. After all, I'm mildly interested in it, you know."

We all went out into the hangar. There was the ship, suspended from a chain hoist with its wheels just off the cement in the middle of a large cleared area. It was silver and gleamed even in the somewhat darkened interior. It looked sturdy and squat and bulldoggish, as only a military fighting ship can. I was glad it looked sturdy.

A group of mechanics were swarming around it and over it and under it. They all looked up as we approached the ship. I knew most of them. I was introduced to the others. You could see that they felt toward that ship as a brood hen feels toward her eggs. They didn't want me to break it. I didn't want to break it either.

I walked around the ship and looked it over. The engineers pointed out

special features and talked metal construction and forged fittings and stress analysis and safety factors, and I asked questions. I was fascinated by the wires that braced the wings. They looked big enough to hold up the Brooklyn Bridge. I liked those wires.

I learned that a pilot had been up there and had gone over the whole stress analysis with them and had recommended only one little change in the ship, which had been made. I learned that he had expressed willingness to dive the ship after that, but that he had been unable to because another job he had contracted to do some time previously was coming up at the same time this one was. I was glad to hear this man had gone over the ship. He was not only one of the most, if not the most, competent test pilots in the country, but also a very good engineer, which I was not.

I crawled into the cockpit. There were more gadgets in it. Something for everything except putting wings back on in the air. The racket had changed, I decided. In the old days, dive demonstrating hadn't been so accurate a thing. You took a ship up and did a good dive with it and came down and everybody was happy. But now, as I could see, they had developed a lot of recording as well as indicating instruments. You used to be able to get away with something. You couldn't get away with anything now. They could take a look at all those trick instruments after you had come down and tell just what you had done. They could tell accurately and didn't have to take your word for it.

There was one instrument there, for instance, that the pilot couldn't see. It was called a vee-gee recorder. It made a pattern on a smoked glass of about the size of one of those paper packets of matches. This pattern told them, after the pilot had come down, just how fast he had dived, what kind of a dive he had made, and what kind of a pull-out he had done.

There was another instrument there that I had never seen before. It looked something like a speedometer and was called an accelerometer. I was soon to find out what that was for! Oh, they told me what it was for then. They explained everything in the cockpit to me, and I sat there and familiarized myself with it as best I could on the ground before taking the ship out. But I wasn't really to find out what that accelerometer was for until I used it. And did I find out then!

We rolled the ship out that afternoon, after last-minute adjustments had been made on it—an airplane is like a woman that way: it always has to have last-minute adjustments—and I made a familiarization flight in it. I just took it off and flew it around at first. Then I began feeling it out. I rocked it and horsed it and yanked it and pulled it and watched. I watched the wires, the wings, the tail. Any unusual flexing? Abnormal vibration? Any flutter? I brought the ship down and had it inspected that night.

The next day I did the same thing. But I went a little bit further this

time. I built up some speed. I did shallow dives. I listened and felt and watched. I did steeper dives. Anything unusual?

This went on for several days. Some minor changes and adjustments were made. Finally I said I was ready to start the official demonstrations, and the official naval observers were called out to watch.

I did five speed dives first. These were to demonstrate that the ship would dive to terminal velocity. Contrary to popular opinion, a falling object will not go faster and faster and faster and faster. It will go faster and faster only up to a certain point. That point is reached when the object creates by its own passage through the air enough air resistance to that passage to equal in pounds the weight of the object. When that point is reached, the object will not fall any faster, no matter how much longer it falls. It is said to be at terminal velocity. A diving airplane is only a falling object, but it is a highly streamlined one, and therefore capable of a very high terminal velocity. A man falling through the air cannot attain a speed greater than about a hundred and twenty miles an hour. But the terminal velocity of an airplane is a lot more than that.

I led up to it carefully. I went to fifteen thousand feet to start the first dive. The ship dove smooth and steady. I pulled out at three hundred miles an hour and climbed back up to do the next dive. I dove to three hundred and twenty miles an hour this time. Everything was fine. Everything was fine as far as I could tell, but when I had eased out of the dive I brought the ship down for inspection before I did the next two dives.

I did the next two dives to three hundred and forty miles an hour and three hundred and sixty. I lost seven thousand feet in the last one. It had me casting the old fish eye around to see if everything was holding before I got through it. Everything held, but I brought the ship down for inspection again before the final speed dive.

I went to eighteen thousand feet for the final one. It was cold up there, and the sky was very blue. I lined all up facing down wind and found myself checking everything very methodically. Was I in high pitch? Was the mixture rich? Was the landing gear folded tightly? Was the stabilizer rolled? Was the rudder tab adjusted? I was a little extra methodical and extra deliberate. I knew that my mind wasn't normally clear. I was breathing harder than usual. It was the altitude. There wasn't enough oxygen. I was a little groggy.

I was a little worried about my ears. I had always had to blow my ears out when just normally losing altitude. I had funny ears like that that wouldn't adjust themselves. I might break an eardrum.

I eased the throttle back, rolled the ship over in a half roll, and stuck her down. I felt the dead, still drop of the first part of the dive. I saw the air-speed needle race around its dial, heard the roaring

of the motor mounting and the whistle of the wires rising, and felt the increasing stress and stiffness of the gathering speed. I saw the altimeter winding up-winding down, rather! Down to twelve thousand feet now. Eleven and a half. Eleven. I saw the air-speed needle slowing down its racing on its second lap around the dial. I heard the roaring motor whining now, and the whistling wires screaming, and felt the awful racking of the terrific speed. I glanced at the air-speed needle. It was barely creeping around the dial. It was almost once and a half around and was just passing the three-eighty mark. I glanced at the altimeter. It was really winding up now! The sensitive needle was going around and around. The other needle read ten thousand, nine and a half, nine. I looked at the air-speed needle. It was standing still. It read three ninety-five. You could feel it was terminal velocity. You could feel the lack of acceleration. You could hear it too. You could hear the motor at a peak whine, holding it. You could hear the wires at a peak scream, holding it. I checked the altimeter. Eight and a half. At eight I would pull out.

Suddenly something shifted on the instrument board and something hit me in the face. I sickeningly remembered that dazing smack on the head of six years before, and the old electric startle shock convulsed me as I remembered the resounding crack of those wings tearing off. I involuntarily took a fear-glazed glance at my wings and instinctively tightened up on the stick and began to ease out of the dive. Through the half-daze pull-out and the dawning ice-cold clearness always aftermathing fright I dimly checked the trouble while I leveled out. When I had got level and got things quieted down and my head had cleared I saw that I was right. Only the glass cover had vibrated off the manifold-pressure instrument, and the needle had popped off the dial. I was thoroughly shaken. And I was mad because I had allowed so little a thing to upset me so much.

I checked my altimeter. It read five thousand feet. I figured I had dived eleven thousand and taken two for recovery.

My ears had a lot of pressure on them. I held both nostrils and blew. The pressure inside popped my ears out easily. They were going to stand the diving all right.

I brought the ship down to be inspected that night and decided to celebrate the successful conclusion of the long dive. Cirrus clouds were forming high up in the blue sky, so I figured maybe I could do it safely. I went up to the weather bureau on the field to check on it.

"How is the weather for tomorrow?" I asked. "Terrible, I hope."

"I think it will be," the weather man said. He consulted his charts further. "Yes, it will be," he assured me.

"Definitely?" I pressed him.

He looked his charts over again. "Yes," he reassured me, "definitely. You won't be able to fly tomorrow."

"Swell!" I exclaimed to the mildly startled man. He didn't quite get it.

It was lousy the next morning, all right. You couldn't see across the field. Even the birds were walking. The engineers were dismayed. They wanted to get on with the demonstrations. I was overjoyed. I had a head. I had celebrated a little too much.

Along about the middle of the morning it began to lift. The engineers began to cheer up. I watched with gathering apprehension while it lifted still further and began to break. In an incredibly short time there were only a few clouds in the sky. I was practically sick about it, but the engineers, with beaming faces, were having the ship pushed out.

I went up to the field lunch wagon to get a cup of coffee while the mechanics warmed up the ship.

I went back down to the hangar and crawled into the ship to do the first two of the next set of five dives. These were to demonstrate pull-outs instead of speed. Here was where I found out what the accelerometer was for.

I knew that the accelerometer was to indicate the force of the pull-outs. I knew that it indicated them in terms of "g," or gravity. I knew that in level flight it registered one "g," which meant, among other things, that I was being pulled into my seat with a force equal to my own weight, or one hundred and fifty pounds. I knew that when I pulled out of a dive, the centrifugal force of the pull-out would push the "g" reading up in exactly the same proportion that it would pull me down into my seat. I knew that I had to pull out of a ten-thousand-foot dive hard enough to push the "g" reading up to nine, and pull me down into my seat with a force equal to nine times my own weight, or thirteen hundred and fifty pounds. I knew that that would put a considerable stress on the airplane, and that that was the reason the Navy wanted me to do it; they wanted to see if it could take it. But what I didn't know was that it would put such a terrific stress on me. I had no idea what a nine "g" pull-out meant to the pilot.

I decided to start the dives out at three hundred miles an hour and increase each succeeding dive in increments of twenty miles an hour for the first four dives, as I had in the speed dives. I decided to pull out of the first dive to five and a half "g", and pull out of each succeedingly faster dive one "g" harder, until I had pulled out of the fourth dive of three hundred and sixty miles an hour to eight and a half "g". Then I would do the grand dive of ten thousand feet to terminal velocity and pull out to nine "g".

I took off and went up to fifteen thousand feet and stuck her down to three hundred miles an hour. I horsed back on the stick and watched the accelerometer. Up she went, and down into my seat I went. Centrifugal force, like some huge invisible monster, pushed my head down into my shoulders and squashed me into that seat so that my backbone bent and I groaned with the force of it. It drained the blood from my head and started to blind me. I watched the accelerometer through a deepening haze. I dimly saw it reach five and a half. I eased up on the stick, and the last thing I saw was the needle starting back to one. I was blind as a bat. I was dizzy as a coot. I looked out at my wings on both sides. I couldn't see them. I couldn't see anything. I watched where the ground ought to be. Pretty soon it began to show up like something looming out of a morning mist. My sight was returning, due to the eased pressure from letting up on the stick. Soon I could see clearly again. I was level, and probably had been for some time. But my head was hot with a queer sort of burning sensation, and my heart was pounding like a water ram.

"How am I going to do a nine-"g" pull-out if I am passing out on five and a half?" I thought. I decided that I had held it too long and that I would get the next reading quicker and release it sooner, so I wouldn't be under the pressure so long.

I noticed that my head was completely cleared from the night before. I didn't know whether it was the altitude or the pull-out. One or the other, or both, I decided, was good for hang-overs.

I climbed back to fifteen thousand feet and stuck her down to three hundred and twenty miles an hour. I horsed back quick on the stick this time. I overshot six and a half and hit seven before I released it. I could feel my guts being sucked down as I fought for sight and consciousness, but the quicker pull and the earlier release worked, and I was able to read the instruments at the higher "g".

I brought the ship down for inspection. Everything was all right. I went back up again and did the next two. They sure did flatten me out, but the ship took it fine. I brought it down for a thorough inspection that night.

I felt like I had been beaten. My eyes felt like somebody had taken them out and played with them and put them back in again. I was droopy tired and had sharp shooting pains in my chest. My back ached, and that night I blew my nose and it bled. I was a little worried about that nine-"g" business.

The next morning was one of those crisp, golden autumn days. The sky was as blue as indigo and as clear as a mountain stream. One of those good days to be alive.

To my surprise, I felt fine. "Those pull-outs must be a tonic," I thought.

I went out to do the terminal-velocity dive with the nine-"g" pull-out.

I found that the last dive I had done the day before had flattened out the fairing on the belly of the ship. The sudden change of attitude of the ship in the eight-and-a-half "g" pull-out had pushed the belly up against that pretty solid three-hundred-and-sixty-mile-an-hour blast of air and crushed the metal bracings that held the belly fairing in shape as neatly as if you had gone over it with a steam roller. It was not a structural part of the ship, however, as far as strength went, and could be repaired that day. They decided to beef up the bracings when they repaired it.

While I was waiting on the repair I talked with a navy commander who had just flown up from Washington. I told him my worry about the nine "g." He said to yell as I horsed back and it would help. I thought he was kidding me. It seemed so silly. But he was serious. He said it would tense the muscles of the abdomen and the neck and preserve sight and consciousness longer.

Somebody during that wait told me about an army pilot who, several years before, in some tests at Wright Field, had accidentally got too much "g," due to a faulty accelerometer. He got some enormously high reading like twelve or fourteen. He ruptured his intestines and broke blood vessels in his brain. He was in the hospital about a year and finally got out. He would never be right again, they told me. He was a little bit goofy. I thought to myself that anybody doing this kind of work was a little bit goofy to begin with. I decided not to get any more than nine "g" if I could help it.

That afternoon I went up to eighteen thousand feet again and rolled her over and stuck her down. Again the dead, still drop and the mounting roar. Again the flickering needles on the instruments and the job of reading them. You never see the ground in one of those dives. You are too busy watching things in the cockpit. Again the tensing fear for thirty whining, screaming seconds while your life is a held breath and the fear of your death is a crouching shadow in a dark corner. Again the mounting racking of the ship until it seems no humanly built thing can stand the stress of that speed much longer.

At eight thousand feet on the altimeter I shifted my gaze to the accelerometer and horsed. I used both hands. I wanted to get the reading as quickly as possible. That unseen violence, punishing this time, fairly crunched me into my seat, so that I only darkly saw the needle passing nine. I realized somehow that I was overshooting and let up on the stick. As my head unwound and my eyes cleared up I noticed that I was level already and that the recording needle on the accelerometer read nine and a half. I checked my altimeter. It read six and a half thousand feet.

When I got back on the ground the commander, who had seen a lot of those dives, said, "Boy, I thought you were never going to pull that out. You had me shouting out loud, 'Pull it out! Pull it out!' And when you did pull it out, did you wrap it!"

I felt I had. I felt all torn down inside. I had forgotten to yell. My back ached like somebody had kicked me. I was really woozy. I was glad I didn't have to do those every day.

I wasn't through yet. During the rest of the afternoon, under a variety of load conditions, I looped, snap-rolled, slow-rolled, spun, did true Immelmanns, and flew upside down.

I still wasn't through. I flew the ship to Washington the next day. The work at the factory had been only the preliminary demonstration!

At Washington I had to do three take-offs and landings, all the maneuvers over again under the different load conditions, and two more terminal-velocity, nine-\_g\_ pull-out dives by way of final demonstration.

Just as I was getting ready to go out and do the three take-offs and landings, the navy squadron that was going to use these ships if the navy bought any of them showed up in a flock of fighters. About twenty-seven of them. They landed, lined up in a neat row beside my ship, got out and clustered around to watch me. I got stage fright. Here was a group of the hottest experts in the country. I had paid little attention to my landings at the factory, being too intent on the other work. What if I bungled those landings right there in front of that gang?

Three simple little take-offs and landings really had me buffaloed, but I worked hard on them, and they turned out all right. Doing the maneuvers under the different load conditions during the rest of the day was practically fun after that.

The next day I came out to do the final two dives. I had to go to Dahlgren to do them. So many airplanes had fallen apart over Anacostia and gone through houses and started fires and raised hell in general that the District of Columbia had prohibited diving in that vicinity. Dahlgren was only about thirty miles south and just nicely took up the climbing time.

The first dive went fine, and I had one more to go. I hated that one more. Everything had been so all right so far, and I hated to think that something might happen in that last dive.

I thought of the wife and kids as I climbed for altitude. It was a swell day. I checked everything carefully. I rolled over into the dive and started down. I caught a glimpse of the blue earth far beneath, so remote. Then to the instruments while I crouched and hated the mounting stress of the terrific speed. About mid-dive I saw something in front of my face. It took me a second to recognize it. It was the Very pistol, used for shooting flare signals at sea. It had come out of its holster at the right side of the cockpit and was floating around in space

between my face and my knees. I grabbed it with my throttle hand and started to throw it over my left shoulder to get rid of it, but quickly decided that that wouldn't be such a smart thing to do. A three or four hundred mile an hour slip stream was lurking just outside there. It would have grabbed that pistol and dashed it into the tail surfaces, and it would have been good-bye airplane. I fumbled it from one hand to the other and finally kept it in my throttle hand. I noticed that I had allowed the ship to nose up out of the dive ever so slightly during that wrestling match, and I spent the rest of the dive nosing it ever so slightly back in. That nose-back-in showed up as negative acceleration on the vee-gee recorder. And in addition to that, although I pulled out to nine and a half "g" on the accelerometer, something had gone wrong with it, because the pull-out turned out to be only seven and a half "g" on the vee-gee recorder.

The navy threw that dive out, so I still had one more to do. Still one more, and by then one more was a mental hazard difficult to overcome. I have a morbid imagination anyway. I knew that the motor and prop had taken a severe beating so far. Maybe one more would be just too much. Maybe something—something that had eluded inspection, perhaps—was just about ready to let go, and I was so damned near the finish. Besides, although I am not superstitious, the rejected dive made that last one the thirteenth.

They gave me a check for fifteen hundred dollars the next day and canceled my insurance. My old car wouldn't have got as far as Oklahoma, and wasn't big enough anyway, so I had to break a new one in on the way down. I was back with the family in good shape, but they still had to eat, and fifteen hundred dollars wouldn't last forever, so I was looking for another job. I thought I had one coming up ... a diving job!

## COLLISION, ALMOST

I took off from Newark with about a seven-thousand-foot ceiling after dark. The ceiling came down as I went farther and farther into the mountains toward Bellefonte, but it didn't come down too much. I got to Sunbury, about fifty miles from Bellefonte, and started into the worst part of the mountains. Then I hit snow.

I went over the first big ridge on the blinkers, closely spaced red lights between beacons in bad spots. It was thick in the valley beyond, but I could just make out the beacon on the next ridge.

I flew up to it, couldn't see the next beacon, went on past from that beacon as far as I dared, but couldn't find the next beacon without losing that one. So I went back to it.

I made several excursions out toward the next beacon before I could find it without losing the one I had. Then I couldn't find the next one.

I circled and circled about fifty feet over that beacon on the mountain top in the driving snow. I couldn't go backward toward the last one. I couldn't go forward toward the next. I was quite sure the next was the field beacon at Bellefonte, but I didn't dare go out far enough to find it.

I knew I couldn't sit there and circle all night. The snow was not abating. I had to do something. Finally I pulled off the beacon in a climbing spiral, headed off blind in what I thought was the direction of the next beacon—what I hoped it was!—and hoped to see it under me through the snow if I flew over it, and if not, to keep on going, blind, until I flew out of the mountains, the snow, or both.

I was lucky, flew right over it, saw dimly down beneath me through the driving snow the Bellefonte Airport boundary lights, spiraled down and landed.

Not five minutes later an air-mail ship came in from the same direction and landed. I asked the pilot how close he had come to the beacon I had been circling. He said he had flown right over it. Can you imagine what would have happened if I had still been sitting there circling that beacon when he came barging along through the snow right over it? He said he was flying on his instruments for the most part. He undoubtedly wouldn't have seen me. I wouldn't have seen him. Our meeting probably wouldn't have been so pleasant!

## HE HAD WHAT IT TOOK

Eddie Stinson, that colorful and beloved figure of American aviation, has gone West. But the many stories that cluster around his almost legendary name, live on.

Dick Blythe, the man who handled Lindbergh's publicity just after Lindbergh's return from Paris, tells me this one about Eddie. Eddie told it to him.

Eddie was working with a crowd that was representing the German Junkers plane in America. One of the things they were trying to do was sell it to the Post Office Department for use on the air-mail lines.

To attract attention to the superior performance of the ship Eddie decided to make a non-stop flight from Chicago to New York. He decided to fly straight over the Alleghanies.

Flying the Alleghanies is common nowadays, what with modern equipment, lighted airways, blind flying instruments and radio. But in those days it was a feat.

Eddie was delayed in taking off and didn't get over the mountains until after dark. Then his imagination began to work overtime.

That happens to a great many of us many times. A motor can be running along perfectly until you get over a spot where you can't afford to have it quit. Then you begin worrying about it and can invariably find something wrong. If all the motors quit under the conditions that all pilots fear, there would be as many wrecked ships scattered over the country as there are signboards.

Anyway, Eddie got to thinking his motor was rough. But he was prepared for the situation. He reached down under his seat and pulled out a bottle of gin. He took a long swig and listened to his motor again. It had smoothed right out.

Every once in a while the motor would get rough again, and Eddie would reach down and take another swig. He said it took him the whole quart of gin to smooth that motor out and get the ship over the mountains and onto Curtiss Field.

## DRY MOTOR

One of the customs in the army, if you were out on a cross-country flight, was not to look at the weather map to see if the weather was all right to go home, and not to look at your ship to see if it was in good enough shape to make the trip, but to look in your pocket and see if you had enough money to stay any longer.

I didn't have, so I piled into my old wing-radiatored PW-8 and took off from Washington for Selfridge Field. I knew I was going to have trouble with the radiators.

I climbed slowly on reduced throttle, reaching for the cold air of altitude. I watched the water temperature indicator, but before it registered boiling I was surprised to see steam coming from the radiators. I remembered then. Water boils at a lower and lower temperature the higher you go. I still thought the lower temperatures of altitude would offset that, so I throttled my motor to the minimum necessary for level flight until the radiator stopped steaming, then opened it a little and tried to sneak a little more altitude before it steamed again.

I worked myself up to six thousand feet like that. I was watching for steam for the umpteenth time, hoping to make Pittsburgh before I ran out of water, when I saw white smoke coming out of the exhausts. I was out of water and was burning the oil off the cylinder walls.

I cut the switches. The speed of my glide kept the prop turning over like a windmill. I picked a field in the country and started talking to myself: "Take it easy—Slow her down—Come around—Don't undershoot whatever you do—Hold it now, you're overshooting—Slip it—Not too much—You're undershooting again—Kick those switches on—Gun it—All right, kick him off—Watch those trees—The fence now—You're slow—Let 'er drop, the field's small—Wham!—Watch your roll—Ground loop at the end if you have—You don't—You made it." I always talk to myself like that in a forced landing.

I don't remember how much water I put in the thing. I do remember that there was only a pint in it when I had landed. And I had kept from burning up the motor!

I took off again and made Pittsburgh, Akron, Cleveland, and Toledo, steaming, but without running clear dry. I probably had a few more gray hairs when I finally landed at Selfridge, but everything else was all right.

## **IMAGINATION**

A friend of mine got an aërial mapping job last summer. He had to fly at twenty thousand feet to take the pictures. Some pilots can stand more altitude than others, but my friend didn't know how much he could stand because he had never flown that high. He decided he had better take oxygen with him, just in case.

His mechanic got a cylinder of oxygen for him, and he took off. He felt pretty groggy at eighteen thousand feet, reached down, got the hose, put it in his mouth, turned on the valve, and took a whiff of oxygen. He couldn't hear the hissing of the stuff escaping because the motor noise drowned it out.

He perked up immediately. The sky brightened, everything became clearer to him, and he went on up to twenty thousand feet. Every once in a while he would feel low and reach down and get himself another whiff of oxygen and feel all right again for a while.

He didn't say anything to his mechanic, but his mechanic decided for himself a few days later that the oxygen was probably getting low in that tank and that he would need another soon. He decided to put a new one in ahead of time to forestall the possibility of running completely out in the air.

He brought a new tank out and decided to test it before he put it in the ship. He opened the valve and nothing happened. The tank was empty.

He took it back to the hangar and discovered that the previous tank my friend had been flying on had come out of the same bin and had been empty all along.

He got a good one and put it in the ship and didn't say anything about the incident. My friend said that the next time he took a whiff of oxygen it almost knocked him out of his seat.

## I SPIN IN

I had been spin testing a Mercury Chic for several weeks, doing everything at a safe and sane altitude, being very scientific. I finally spun it in from an altitude of about three feet. And I mean spun it in too. The ship was a complete washout.

There was a strong wind that day, and a very gusty one. When I taxied out for the take-off the wind was on my tail. There were no brakes on the ship. It was very light, and in addition, a high wing job—always a top-heavy thing in a wind.

The wind kept swinging me around into it, and I wanted to go the other way. I should have called a couple of mechanics from the line to come and hold my wings and help me taxi. But I was proud or stubborn or dumb or something that day.

I adopted a little strategy. I'd get the ship all lined up down wind and when the wind would start swinging me around the other way I'd just let it swing until the nose was headed almost into the wind. Then I would gun it, kick rudder with the swing, thus aggravating it instead of checking it, hoping to get my way by going with it instead of fighting it, and then, when it was headed down wind again, try to hold it there until the next gust started swinging me around again.

It worked fine, and I was making a certain amount of headway down the field until, on one of the swings, a particularly heavy gust of wind picked up my outside wing as I was swinging. The ship tipped up very slowly, and I thought I was going to tip a wing. Then a larger and heavier gust hit it. It picked that ship off the ground, turned it over on its back and literally threw it down on the ground.

It was the worst crack-up I had ever been in. All four longerons were broken, the wings crumpled, the motor mount was twisted, the prop bent, the tail crushed, and the ship looked like it had spun in from at least ten thousand feet.

I crawled out from under it unhurt except for my feelings. I never felt so foolish in my life. I had cracked up a ship without even flying it.

## **BUSINESS BEFORE FAME**

Clyde Pangborne, of Pangborne and Herndon fame, the two flyers who were first to fly non-stop from Japan to America over the Pacific Ocean, and also of Pangborne and Turner fame, the flying team that won third place in the London-Australia Air Derby in 1934, was operations manager for the famous Gate's Flying Circus for many years. He flew into Lewiston, Mont., in October, 1923, with his aërial circus. He had a contract with the fair association of that town, giving him exclusive rights to all the passenger carrying and flying to be done at the local fair then in progress.

He landed an hour before he was supposed to put on his first performance of stunting, wing-walking and parachute jumping, the preliminary crowd-attracting procedure before the money-making of passenger carrying, which was one of the attractions the fair had advertised. He found another pilot and plane, with chute jumper, there ahead of him, all set to do business in his place.

Pangborne told the other pilot to get out. The other pilot said, "So what?" Pangborne said: "I got a contract, and I'm going to town to see about it."

He went to town and told the fair association about it. He said he would sue the city if they didn't get that other guy and his chute jumper off the field by the time he was ready to put on his exhibition.

The fair association went out to the field. They got hold of the other pilot and his chute jumper. They reminded the pilot that he had flown out of that field the previous year, and, in departing, had overlooked the small matter of paying a certain amount of rent he had agreed to pay for the field. They told him to get out or go to jail by four o'clock that afternoon.

It was a conclusive argument. The pilot cranked his ship, got in his cockpit, called to his chute jumper, a long, slim, gangling kid who was obviously disappointed at the turn affairs had taken, because he had been all set to have some fun jumping that day, and took off.

The chute jumper was Charles Augustus Lindbergh, who had not yet learned to fly.

## **EVERYTHING WRONG**

On my first solo in a Martin bomber, I started to take off and started swinging to the left. I put on right rudder but kept on swinging to the left. I ran out of right rudder and was still swinging to the left into a line of mesquite trees. I eased the right motor off a little, but it didn't help much. I couldn't cut the gun and stop before I hit the trees. I could only hope to get into the air before I got up to them.

Suddenly my left wing started to lift, and it dawned on me like a flash of shame what was wrong. I had had the wheel rolled to the right and my left aileron down. The resistance of that down aileron had swung me to the left at slow speeds, and I had fought it with right rudder, but now at high speeds it was banking me to the right, and I still had on right rudder. I was taking off in a right-hand bank with the controls set fully for it. The left-hand motor was pulling stronger than the right.

I never kicked and pulled so many things so fast before as I did right then. By some miracle I found myself fifty feet in the air instead of in a heap. But I was flying exactly at right angles to the direction I had originally planned.

Everything seemed to be all right, so I went around and landed. I gave it the gun immediately on touching the ground and went around and landed again.

This time I saw a lot of cars coming out toward me. Maybe that take-off had looked pretty good. Maybe they thought I knew what I had been doing. The two landings had been good. Maybe they were coming out to congratulate me.

My instructor got there first. He ran over and started inspecting the right wing tip. He was looking underneath it. "Hey, you," he shouted at me when he looked up, "don't you ever get out and take a look after you crack up a ship?"

I had dragged the right wing for several hundred feet. The under side of the wing was badly torn up, and the aileron was just barely hanging on.

## A SHOWY STUNT

An upside-down landing is one of the showiest maneuvers a stunting pilot can perform. He doesn't really land upside down. He comes all the way in in his glide upside down until he is about ten or twenty feet off the ground. Then he rolls over and lands right side up.

Jack, who had got pretty hot at this maneuver, hit a telephone pole coming in like that one day and woke up in the hospital.

Some time before that I had almost done practically the same thing. I had dived low over the field down wind at the end of a show I had been putting on at a little air meet and had pulled up until I was on my back at about eight hundred feet. I decided I would not only glide in upside down but would make it really fancy and slip both ways in the glide. I started to slip but forgot and did it the same as I would have had I been right side up and produced a bank instead. No, no, I told myself, coördinate, don't cross controls. There. I tried one to the other side. That's fine, I told myself. I got so absorbed in this little maneuver that I completely forgot the ground until I was almost too low and too slow to turn right side up again. I actually missed the ground by inches as I rolled over, and only some kind fate presiding over absent-minded stunt pilots enabled me to do it then.

I saw Jack in the hospital, when he was well enough.

"Hey, Jack," I started kidding him, "I hear that you practiced upside-down landings for months, and that finally you made one. Is there any truth to that?"

He clamped his jaws but grinned back at me. "That's all right," he said, "but if I remember correctly I saw a pilot by the name of Jimmy Collins just miss landing upside down once."

"Yeah, Jack," I said, "but—" I hesitated: this was too good not to emphasize—"but I missed," I said.

Jack just glared at me. There wasn't any answer.

## DEATH ON THE GRIDIRON

It's funny how things turn out sometimes. Fate gives you a capricious little tweak, and there you are. I often think of the case of Zep Schock.

Zep and I were fraternity brothers at college. I was crazy about aviation, and Zep was crazy about football. I had been too poor to fly up till then, and Zep had been too little to play football. He weighed only about ninety-five pounds when he came to college. They had even used him as a sort of a mascot on the high-school teams.

Near the end of my freshman year I discovered quite accidentally, through reading an aviation magazine which I had repeatedly promised myself not to read because it took my mind off my work, that the army would teach me to fly for nothing. They would even pay me for it! And Zep suddenly started to grow.

I passed my entrance examinations for the Army Primary Flying School at Brooks Field, San Antonio, Tex., that fall, and prepared to quit school after the mid-term exams—which would mark the end of my freshman year, because I had started college in January instead of March—to go to flying school the following March. Zep had made the freshman football team in the meantime.

There wasn't much flying outside of the army in those days, and nobody knew much about it except that it was dangerous. None of the fellows could understand why I was doing such a fool thing. They tried to talk me out of it, discovered they couldn't, decided I was nuts, and started kidding me. Zep was the best of the bunch.

Every night at dinner he used to propose a toast to me. "Here's to Jimmy Collins," he used to say. "The average life of the aviator is forty hours." He had picked those figures up some place reading about war pilots.

That was eleven years ago, and I'm still flying. Poor Zep made the regular team the next year and got killed playing football.

## **NOVICE NEAR DEATH**

One flight test I gave, when I was an inspector for the Department of Commerce, was almost my last.

I went up with a guy, saw in three minutes he couldn't fly, took the controls away from him, landed, and told him to come back some other day. He pleaded with me that I hadn't given him a chance, that if I would only let him go further through the test without taking the controls away he would show me he could fly.

So I took him up again. I let him slop along without interference until we came to spins. I told him to do a spin, and he started a steep spiral. I took the controls away from him, regained some altitude, told him to do a spin again, and he started a steep spiral again—a lousy spiral, too!

I thought maybe he was afraid to do a spin, so I said the mental equivalent of "Skip it" to myself and told him to do a three-sixty. He should have gone to fifteen hundred feet, cut the gun, turned around once in his glide and landed on a spot under where he had cut the gun. He went to two thousand feet instead, put the ship in a steep, skidding spiral verging on a spin—he was death on steep spirals—and held it there. Round and round we went. I let him go. I wanted to convince him this time.

I had been watching for it, but at two hundred feet the ship beat me to it even so and flipped right over on its back. I made one swift movement, knocking the throttle open with my left hand in passing, and grabbed the stick with both hands. The guy was frantically freezing backward on it, but my sudden, violent attack on it gave me the lead on him and I managed to get the stick just far enough forward to stop the spin we had begun. I was sure we were going to hit the ground swooping out of the resultant dive, but by some miracle we missed it.

I landed immediately and was so mad I started to walk off without saying anything. But the guy followed me, bleating, "Please, Mr. Collins." until I relented and turned to speak.

Before I could say anything he broke in on me with: "Please, Mr. Collins, please don't grab the controls from me like that just because I make one too many turns. I could bring the ship down all right."

My mouth opened and closed speechlessly. Bring it down! Bring us both down in a heap! But how could I say it and make myself understood? The guy didn't even know we had been in a spin. He didn't know we had almost broken our necks in one. He thought I was impatient!

## **HUNGRY'S SHIP BURNED**

Lieutenant Hungry Gates' ship caught fire in the air. He pulled his throttle and worked carefully but fast. He undid his belt and started to raise himself out of the cockpit. He started to leap but remembered something. That swell bottle of pre-war liquor that a friend had given him just before he took off was in the map case. He'd need that if he got down alive. He made a quick grab back into the cockpit for it and leaped head foremost, clear of the burning wreck.

He missed the tail surfaces and waited a moment, thankful for that much. He didn't want the ship to fall on him. He didn't want any of the burning débris to fall on his chute when he opened it.

When he had waited long enough, he started to pull his rip cord to open his chute, but discovered both hands already engaged. He let go of the bottle of liquor with his right hand and hugged the bottle tightly with his left arm. He grabbed his rip-cord ring with his freed right hand, yanked hard, grabbed his bottle to him with both hands again, and waited. The sudden checking of his speed when his chute opened jolted him up short in his harness, but he didn't drop the bottle.

He thought of the flaming wreck above him. He looked up but saw only his white chute spread safely above him, etched cold against the clear blue sky. He looked around the sky. He saw a long trailing column of black smoke and followed it with his eyes downward until he saw the hurtling ship at the end of it. It was beneath him now and no longer a threat to his chute. He watched it nose violently into a wooded patch off to his left just before he settled down into a pasture. He hit hard, fell down, but held on to his bottle. His chute toppled over into a limp heap in the still air.

He sat up and decided he needed a drink before he even got out of his harness to gather up his chute. He hauled his bottle out from under his arm and gazed at it in consternation, licking his lips.

It wasn't a bottle at all. It was the fire extinguisher!

## **BACK-SEAT PALS**

Back-seat driving is taboo in the ethics of the flying game. But occasionally you get a case of it when you get two pilots together in the same cockpit.

Two pilots were flying a pretty heavily loaded bomber on a cross-country trip, one time. They were both fast friends and both equally good pilots. Maybe that's why the thing happened as it did.

They landed at Love Field, Tex., gassed up, and taxied out to take off again. Part of the field was torn up. They didn't have any more field than just enough from where they began their take-off.

Their heavily loaded ship with its two Liberty motors, its acres of wings, and its forest of struts started lumbering down the field. The pilot who was flying the ship used most of the space in front of his obstacles before he got the ship off the ground. He did a nice job after he got it off the ground by not climbing it more than just enough to clear the wires which were in front of him. He figured he was just going to clear them nicely when apparently the other pilot, sitting alongside him in the other cockpit, figured he wasn't although why the other pilot did what he did at that second I could never figure out, except that it was one of those dumb things that we are all apt to do under duress if we don't watch ourselves.

Anyway, both motors suddenly quit cold, and the ship smacked into the wires and piled up in a heap on the far side of the road across the airport.

Both pilots came out of the wreck running. The one who had been flying the ship had the wheel, which evidently had broken off in the crash, raised above his head in his right hand. He was brandishing it wildly, running after the other pilot and shouting at the top of his voice, "Cut my switches, will you! Cut my switches just when I was going to make it! If I ever catch you I'll cut your throat!"

## WATCH YOUR STEP!

At Anacostia Naval Air Station, the river flows on one side of the hangars, and the airport stretches on the other. They fly boats out of the river side and land planes out of the airport side.

One pilot down there had been flying land planes exclusively for several months. Then one day he flew a boat. One of the enlisted pilots went along with him as co-pilot.

After flying around for a while he started in for a landing. But instead of coming in for a landing on the river he started to land on the airport.

The enlisted pilot with him let him go as long as he thought he dared. Then he nudged him in the ribs, pointed out that he was about to land a boat on land, and suggested that maybe it would be a better idea to go over and land in the river.

The pilot agreed that it certainly would. He gave it the gun and went around again and came in for a landing on the river. He made a good landing and let the ship slow down. When they were idling along he turned around to the enlisted pilot and started to apologize for almost landing him on land. He undid his belt as he talked.

"That was a dumb thing for me to do," he said. "I've been flying land planes for so long that I guess I just started coming in there from habit without thinking. It sure was dumb." He was obviously humiliated and confused.

"Well," he said finally, "it sure was dumb," and got up and climbed out of the cockpit onto the wing.

"So long," he said, and stepped down off the wing into the water.

## FLYER ENJOYS WORRY

Gloomy Gus got his name at Brooks Field, the army primary flying school. He was always going to get washed out of the school the next day. When he graduated from Brooks he wasn't going to last three weeks at Kelly, the advanced school, because he had got through Brooks by luck anyway. When he graduated from Kelly, the hottest pilot in his class, he would never get a job in commercial flying, so he might just as well have been washed out at Kelly.

I saw him several months later in Chicago. He was flying one of the best runs on the western division of the mail. He was sure it wouldn't be very long before he cracked up, night flying, and disabled himself for life, so what good was his mail job?

I saw him several years after he had been transferred to the eastern run over the Allegheny Mountains. He didn't know what good the additional money he was making was going to do him when he was dead. Didn't all the hot pilots get it in those mountains?

He took a vacation from the passenger lines and went on active duty with the army. I saw him at Mitchell Field. He said he was taking his vacation flying because he wanted to fly some army ships for a change and have some fun. "But you know, I shouldn't have done it," he said. "I've been flying straight and level too long. I almost hit a guy in formation this morning. I probably won't live long enough to get back to the lines."

I saw him a few days after he had gone back to the lines.

"How they going, Gloomy?" I greeted him.

"Oh," he said, "that bit of army flying made me careless. I almost hit a radio tower this morning. Carelessness is what kills all old-timers, you know."

"Gus," I said. "You'd be miserable if you didn't have something to worry about. You will probably live to have a long white beard and worry yourself sick all day long that you are going to trip on it and break your neck."

Only a faint flicker of humor lit up his gloomy eyes.

### WEATHER AND WHITHER

Archer Winsten writes that "different" column in the Post, In the Wake of the News. I met Archer for the first time in San Antonio in 1927. He was down there for his health, and I was instructing at Brooks Field for my living. We both had ideas of writing even at that time. We became fast friends before Archer went home to Connecticut and I went to March Field. Riverside. Cal.

I resigned from the army the next year and went with the Department of Commerce. I was assigned to fly Bill McCracken, head of the department, on about a seven-thousand-mile tour of the country. I kept asking Bill if his itinerary was going to take us to Westport, Conn., or anywhere near it, because if it was I wanted to go see my friend Archer Winsten, who lived there. He said he didn't know where the place was, and I began looking for it on the map. I couldn't find it and told Bill that. I remarked how strange it was several times later that I couldn't find Westport on the map. A couple of times Bill asked me if I had found it yet, and I said no.

I was strange to the East at that time, and when we got to Hartford I was sure we were going to go right past Westport without my ever finding out where it was. I complained to Bill about it and we both looked over a map and couldn't find the place.

The next day we started down to New York from Hartford and ran into lousy weather. It got so low finally that, although I was following railroads and valleys, I decided that I couldn't go any farther. I milled around, dodging trees and hills for about ten minutes before I found a place to sit down.

I landed in a small field surrounded with stone fences. A man came wading through the wet grass toward us after we had stopped rolling. Bill asked me where we were, and I said I had only a vague idea after all that milling around but would ask the man. The man said Westport.

Bill howled with delight. Part of his delight undoubtedly was relief at getting down out of that soup without breaking his neck, but I was never able to convince him that I didn't know I was landing at Westport.

# **I SEE**

A man came up to me for flight test once when I was an inspector for the Department of Commerce. He flew terribly, so I sent him away and told him to come back in a couple of weeks, after he had practiced a little more. He came back a couple of weeks later, and I turned him down again.

The third time he came in he said, "I think we'll get along all right this time. Can I take the test today?"

"I'm too busy today," I told him. But he pleaded so hard that I finally said, "All right, I'll squeeze you in this afternoon. Come at three o'clock."

"Thank you, thank you," he said, and held out his hand.

I reached out my hand to grip his and felt something in my palm. I pulled my hand away and found a piece of paper in it. I unfolded it and discovered a ten-dollar bill.

I stood there and looked at it, puzzled and amazed for a few seconds. Then the full import of it dawned on me. He thought I had been holding out for something. He thought he would fix me up. He didn't know he could never fix me up if I put my stamp of approval on him when he was unfit and he should then go out and kill some passenger because of my leniency.

It started at the top of my head, that raging anger. It burned like flaming coals and raced through my veins like fire. I began to tremble violently, and when I looked up the man was a red flame in a red room.

I hurled the paper bill at him as though it were a javelin and shouted, "Get out! Get out and don't ever come back!"

Have you ever thrown a piece of paper at anybody?

The bill fluttered ineffectually down to the floor halfway between us. I rushed at it and kicked at it until it was out of the door. I kicked him out too.

I wondered, sitting at my desk afterward, why I had got so mad. It wasn't honesty. I hadn't had time to think of honesty. I wondered if it was because he had implied that I was worth ten dollars. I wondered what I would have done if he had offered me ten thousand dollars. I began to understand graft.

### WON ARGUMENT LOST

"That student is dangerous. You're crazy if you fly with him again," I harangued my friend, Brooks Wilson.

"Don't be that way," Brooks answered. "He's not dangerous. He's goofy."

"That's why he's dangerous," I countered. "You tell me that he froze the controls in a panic today and you lost a thousand feet of altitude before you were able to get the ship away from him. The next time you may not have a thousand feet."

"I won't need a thousand feet the next time," Brooks argued. "I wrestled the controls away from him today, but the next time he grabs them like that, I'll just beat him over the head with the fire extinguisher and knock him out."

"If you are high enough to do that, you won't be in any danger," I pointed out. "And if you are low enough to be in danger when he freezes, you won't have time to knock him out."

Brooks and I were both very young army instructors, and Brooks was stubborn with the confidence of youth. He only growled, "Don't be a sissy all your life. I can handle this guy."

The next day a solo student spun in, in a field of corn beside the airport. Brooks had just landed with his goofy student and was crawling out of his cockpit when he saw the ship hit. He jumped back into his cockpit, gave his still idling motor the gun and took off, his goofy student still in the rear seat.

He flew over the wreck, circled it, dove on it, pulled up, wing-it, dove on it, pulled up, wing-overed, and dove on it again. He was a beautiful pilot. He was pointing out to the ambulance where the wreck was in the tall corn. He pulled up and started another wing-over, flipped suddenly over on his back, and spun in right beside the wreck.

When they pulled Brooks out of his wreck he was unconscious but was muttering over and over again in his Southern vernacular, "Turn 'em loose. Turn 'em loose before we crash."

The goofy student was hardly even scratched. Brooks died that night.

### **MONK HUNTER**

Monk Hunter was a dashing aviator, the only really dashing aviator I have ever known. There was dash to the cut and fit of his uniforms, dash to the shine and the fit of his boots, dash to the twirl and flip of the cane he carried. There was dash to the set of his magnificently erect and darkly handsome head, dash in the flare of his nostrils and the gleam of his flashing black eyes, dash in his violently dynamic gestures and in his torrential, staccatoed, highly inflected speech which he aimed at you as he had aimed machine guns at enemy flyers during the war when he had shot down nine of them.

There was especial dash to Monk's mustache. Only Monk could have worn that mustache. I saw him once without it, and something seemed to have gone out of him as it went out of Samson when they clipped his hair. He looked naked and helpless.

It was a big mustache, the kind you see in tintypes of swains of long ago. It bristled, and Monk had a way about him in twirling it that you should have seen.

Poor Monk took off at Selfridge one day in an army pursuit ship. He even did that with dash. He held it low after the take-off and then started a clean, left, sweeping climb into the blue sky.

We all saw the white smoke start trailing out behind his ship. Then with bated breath we watched the ship slump slowly over from its gestured climbing and nose straight down inexorably toward the ice of Lake St. Clair. Monk's chute blossomed out behind the diving ship just before it disappeared behind the trees.

We all jumped into cars and rushed madly over to where we thought it had hit. We found Monk, unhurt, except for the jar from landing on the ice, waving his arms, wildly shouting that the ship had caught fire and to look what the damned thing had done. We looked at the ship, but Monk was still gesticulating excitedly, so we looked at him. He meant to look what it had done to him.

We all started laughing like hell. We were really laughing with Monk, not at him. He appreciated it, too.

His mustache had been burnt clear off on one side.

# COULDN'T TAKE IT

I was testing an airplane one day. Its wings came off, and I jumped out in my chute. I am convinced that the people on the ground watching me got a bigger thrill out of it than I did. I was too busy.

For one thing, Admiral Moffett, who was later killed in the Akron, rushed home to his office in an emotional fit and wrote me a very nice letter about what a hero I was. I wasn't any hero. I had just been saving my neck.

And for another, my mechanic came up to see me in the hospital right afterward. I wasn't in the hospital because I was hurt, but because the military doctor on the post made me go there. After I had got into the hospital I discovered that my heart was beating so violently that I couldn't sleep, so when Eddie, my mechanic, came up they let him in.

He didn't say anything at all for a while. He just sat on the bed opposite mine and twirled his cap, looking down at the floor. Finally he said, "When your chute opened, I fell down."

I pictured him running madly across the field, watching me falling before I had opened my chute, and then stumbling just as my chute opened. "Why didn't you watch where you were going?" I said banteringly.

He kept looking at the floor, twirling his cap, his face expressionless. "I wasn't going any place," he said.

The conversation wasn't making much sense to me. "Didn't you say that when my chute opened, you fell down?" I asked.

"Yes," he said, as if he were talking to the floor. He was in a sort of trance.

"Well," I said, puzzled, "then you must have been running across the field watching me. You must have stumbled and fallen."

"No," he said, like a man in a dream, "I didn't stumble on anything. I was just standing there looking up, watching you."

I was getting frantic. "Well, how in the hell did you fall down, then?" I asked.

"My knees collapsed," he said.

### **GOOD LUCK**

Soon now, he would be flying out over the ocean. Soon he would be famous and rich. Lindbergh had made it. Why shouldn't he?

His ship was almost ready. Its belly bulged with new tanks. Its wings stretched with new width to take the added gas load. Its motor emitted a perfect sound that his trained ears could find no fault with.

Only the final adjusting of his instruments remained. Lindbergh had taken great pains with his instruments. He would too. When the ground crew had finished with them, he flew his ship on a short cross-country trip to check the instruments in flight. They worked fine.

He brought his ship down to put it in the hangar until he got his break in weather. He lingered in the cockpit for a few moments, contemplating his instruments in anticipation of the weary hours he would have to watch them during the long flight.

A thought occurred to him. Lindbergh had been lucky. He would be too. His girl (sweet kid—maybe when he came back ... but he would do the job first) had already wished him luck. She had given him a token of her wish. It was only a cheap thing she had picked up in some novelty shop, but he treasured it. He took it out of his pocket. He tied it to the instrument board and fashioned its bright red ribbon into a neat bow knot that reminded him of the way she fastened her apron when she made coffee for him in her kitchen late at night. There. Yes, he too would have luck now.

Several days later his break in the weather hadn't come yet. He got worried about his instruments. There were no landmarks in the ocean. Maybe he had better check his compass again.

He went out to the field and flew his ship. The compass was off! It was way off! When the ground crew checked it again it was off twenty degrees on the first reading.

They soon found the trouble. As everybody knows, metal near a compass will throw it off. They found a metal imitation of a rabbit's foot suspended on a red ribbon tied to the bottom of the compass case.

### WILL ROGERS IN THE AIR

I was flying as a passenger on one of the airlines once, going out to Wichita to take delivery of a ship I had sold. Will Rogers was a passenger on the same ship.

When we stopped at Columbus, I managed to engage Rogers in conversation. I had always been curious about whether he talked in private life as he does on the stage and radio, and if the poor grammar in his writing was deliberate or natural. He talked to me exactly as he does on the stage and radio, and his grammar was just as bad as it is in his writing. So I decided that, if it was an act, he was carrying it pretty far.

I noticed that he made certain movements with difficulty. He seemed to be crippled up a little. I asked him what was the matter. He said he had fallen off his horse before he left California and had broken a couple of ribs. I thought that was kind of funny, because I had always supposed he was a good horseman. I told him that, and he said it was a new horse and he wasn't used to it. I still thought it was kind of funny, but I let it pass.

I managed to bring out a little later in the conversation that I was a professional pilot myself and that being a passenger was a rare experience for me. He said he could tell me the truth then. He said he really had had an airplane accident the day before. An airliner he had been riding in had made a forced landing, had nosed over pretty hard, and had banged him up a little. That's how he had broken his ribs.

He said it hadn't been the pilot's fault that they had cracked up, that the motor had quit, and that the pilot had done a good job considering the country he had to sit down in. He said that only a good pilot could have kept from killing everybody in the ship, and that he was the only one who had been hurt.

He said he had told me that story about the horse in the first place because he thought I was a regular passenger. He said not to tell any of the rest of the passengers, because it might scare them and spoil their trip.

### HE NEVER KNEW

Pilots often play jokes on each other when they fly together.

Two pilots I knew at Kelly Field had been up to Dallas on a week-end cross-country trip. They started back on a very rough day and were bouncing all around the sky.

About fifty miles out of San Antonio, the pilot who was flying the ship turned around to ask the other one in the rear seat for some matches. He couldn't see him, so he figured he was slumped down in the cockpit, napping. He looked back under his arm inside the fuselage. The rear cockpit was empty!

He was only flying at about five hundred feet, hadn't been flying any higher than that on the whole trip, and at times had been flying even lower.

Scared to death that his passenger had loosened his belt to stretch out and sleep and had been thrown out of the cockpit in a bump, perhaps even failing to recognize his predicament in time to open his chute, the pilot swung back on his course and started searching the route he had covered for signs of a body. He searched back over as much of it as he dared and still have enough gas left to turn around again and go on into Kelly Field.

He found nothing and was worried sick all the way back to Kelly. But when he landed, there was the other pilot, grinning a greeting at him.

The pilot who had been in the rear seat explained that he had undone his belt to stretch out and sleep and that the next thing he knew he felt a bump and woke up with a start to discover the cockpit about four feet beneath him and off to one side. He said he reached, but only grabbed thin air. The tail surfaces passed by under him, and he saw the airplane flying off without him.

He was too astounded at first, but quickly realized he ought to do something, sitting out there in space with no airplane or anything, so he pulled his rip cord. His chute opened just in time.

He walked over to the main road he had been flying over so recently and thumbed himself a ride to Kelly Field. He said he had seen the ship turn around and start back looking for him.

The pilot who had been flying the ship never knew if the other one had really fallen out of the ship, or if he had jumped out as a joke.

### **BONNY'S DREAM**

Bonny had a dream. His inventor's eyes gleamed with the light of it. His days lived with the hope of it. His nights moved with its vision.

Because of his dream we called him Bonny Gull. He dreamed of building an airplane with metal, wood and fabric to emulate the sinewed, feathered grace of a soaring gull.

He studied gulls. He studied them dead and alive. He studied their wonderful soaring flight alive. He killed them and studied their lifeless wings. He wanted their secret. He wanted to recreate it for man.

He might have asked God. He might have asked God and heard a still small voice answer: "Render unto Cæsar what is Cæsar's and unto God what is God's. Render unto man his own flight and leave to the gulls their own. Man's flight is different because his destiny is different. He doesn't need the gulls' flight."

But Bonny envied the gulls. He killed hundreds of them, yes, thousands, and buried them in the field. He built an airplane from what he thought he had learned from their dead bodies.

He built an airplane and took it out to fly. Engineers, who had never studied gulls but who had studied man's flight, told him he shouldn't do it. They pointed out to him how the center of pressure would shift on his wings. But Bonny glared his glittering faith at them, snuggled his dream in close, and flew.

He took off all right. He roared across the field, and if he didn't sound quite like a gull, he looked the part. He rose into the air for all the world like a giant gull. He pulled off in a steep climb, and the wise men wondered if again they were proved wrong by an ignorant fanatic.

Their wonder didn't last long. When Bonny tried to level out, he nosed over and dove straight into the ground, like a gull diving into the ocean for a fish. We rushed out to the wreck. Bonny was quite dead. There was scattered around him not only the remains of his own gull wings, but thousands of the feathered remains of other gull wings. He had dived straight into the shallow grave of all the gulls he had killed.

### **COB-PIPE HAZARDS**

Silly little things are apt to crack you up sometimes.

I did an outside loop at Akron once. I came up over the top of the loop and started right down into another. I didn't want to do another, so I pulled back on the stick to stop it. It wouldn't come all the way back. It was jammed some way.

The ship was nosing steeper and steeper into the dive. I rolled the stabilizer, and that enabled me to pull the nose up. I couldn't keep it up if I cut the gun more than halfway. I knew I would have a tough time landing like that. Besides, although I had a chute, I knew that when I got down low to make a landing the stick might jam even farther forward and nose me in before I had a chance to jump. Or the engine might quit down low and do the same thing. It wasn't my ship, however, and I didn't want to jump and throw it away if I didn't absolutely have to.

I tried the stick a few more times. Each time I yanked it back hard it came up against the same obstacle at the same point. I decided to take a chance that it would stay jammed where it was.

I came in low 'way back of the field with almost all of the back travel of the stick taken up, holding the nose up with the gun. I had to land with the tail up high, going fast. I bounced wildly, used all the field, but made it all right.

I made an immediate inspection to find out what had jammed the stick. I couldn't imagine what it was because I had taken all the loose gadgets out of the ship before I had gone up.

I found a corncob pipe that the ship's owner had been looking for for weeks. He had left it in the baggage compartment and had never been able to find it. It had slipped through a small opening at the top of the rear wall of the compartment and had evidently been floating around in the tail of the fuselage all that time.

When I did the outside loop it had been flung upward by centrifugal force and wedged into the wedge ending of the upper longerons at the end of the fuselage. The flipper horn was hitting it every time I pulled the stick back, preventing me from getting the full backward movement.

Only the bowl of the pipe was left. It was lodged sidewise. Had it lodged endwise it would have jammed the stick even farther forward, and I would have had to jump or dive in with the ship. I would have had to jump quickly, too, because I didn't have much altitude when I started that second involuntary outside loop.

### WHOOPEE!

A friend of mine was once chased and rammed in midair by a drunken pilot. If you have ever been approached on the road by a drunken driver you have some idea of the predicament he found himself in when this drunk started chasing him. Of course, he didn't know this guy was drunk, but he knew he was either drunk or crazy.

My friend was an army pilot. He was flying an army pursuit ship from Selfridge Field, Mich., to Chicago and was circling the field at Chicago preparatory to landing when he was set upon by the drunk, who, evidently still living in the memory of his war days, was trying to egg my friend on to a sham battle, trying to get him to dogfight.

He saw the DH, which was a mail ship of those days, approach him first from above and head on. He had to kick out of the way at the last moment, or he would have been hit on that first pass the guy took at him. The guy pulled up and took another pass at him. He kicked out of the way again and started wondering since when had they turned lunatics loose in the sky. He didn't have much time for wondering, because the guy kept taking passes at him. Finally, the guy took to diving down under him and pulling up in front of him. He seemed to think that was more fun than just diving on my friend, and he kept it up.

My friend saw him disappear under the tail of his ship this time, and he didn't know what to do about it. He didn't know which way to turn, because he didn't know which way the goof was going to pull up.

Suddenly he saw the nose of the other ship. It came up directly in front of his own nose. He knew the guy had overdone it this time and come too close. He pulled back on his stick, but felt the jar of the collision just as he did. It threw him up into a stall, and when he came out his motor was so rough he had to cut his switches. He had raked the tail of the other ship with his propeller, and it was bent all out of shape. He had also cut the tail off the drunk's ship.

The drunk was evidently too drunk to get out of the cockpit because he cracked up with his ship. My friend managed to get his ship down without jumping. It was only a wonder, plus some neat flying on my friend's part, that he wasn't killed too.

### **BUILDING THROUGH**

A pilot should never be too stubborn with an airplane. I learned that early, fortunately, without coming to grief in the process.

Another pilot criticized my flying once. He criticized the way I was making my take-offs. Kidlike and cocky, just out of flying school, I took a foolish way of proving he was wrong. But he had me so riled by his caustic and nasty remarks about how I was going to kill myself if I kept that up that I flung out a challenge to him and felt I had to keep my attitude even when I saw I was overdoing the thing and thought I was going to crack up.

"If you think my take-offs are so dangerous," I told him, "I'll just go out there and cut my gun in the most dangerous spot of this dangerous take-off and land safely back in the airport." And I stalked out, fuming, and got in the ship.

I took off toward the high trees at the end of the field, didn't let the ship climb very steeply approaching the trees, and banked just before I got to them—exactly like I had been doing on the take-offs he had been criticizing. But I also pulled up sharply, just to make it worse. I didn't want him to have any comeback. I cut the gun and started dropping back in over the trees into the airport. I should have put the nose down a little to cushion the drop, but I was mad. I'd show him the worse way. I wanted to gun it because I was dropping hard, but I wouldn't give him the satisfaction.

I hit like a ton of bricks. The ship groaned and bounced as high as a hangar. Luckily, it was a square hit and a square bounce. That's the only reason I didn't spread the ship all over the field. It hit and bounced again and rolled to a very short stop for a down-wind landing.

"All right," I told the guy when I crawled out of the ship, "you go out now and cut your gun just over the trees on one of your safe, straight take-offs. You won't have a turn started and already pretty well developed, and you won't have room enough to start one. You'll pile into the trees in a heap, and if that's safer than landing on the airport in one piece, then I'll admit that your take-offs are safer than mine."

He didn't dare and he knew it. So he just glared at me, knowing damned well, as I knew myself, that I should by all rights have cracked up on that landing. But I had him, and he shut up and didn't make any more cracks about me.

# MUCH!

Somebody asked me one day what kind of an airplane I flew. I told him any kind anybody was willing to pay me for flying.

"But don't you own an airplane?" the man asked.

"No," I answered. "And furthermore," I added, "I have never owned an airplane, although I have been a professional pilot for eleven years."

Why?

Well, I can best explain that as I explained it to a little boy once out in California.

I was at the Lockheed factory. I had been there several months, supervising the construction of an airplane I had sold to a rich sportsman pilot in the East. It was a Lockheed Sirius plane and at that time a ship which was taking everybody's eyes as the latest and sleekest thing yet developed by the engineers. Lindbergh had just popularized it by flying himself and his wife across the country in it and establishing a new transcontinental record.

They rolled my ship out on the line one bright, sunny day and I must say that in its shiny new red-and-white paint job and its clean, sweeping lines it certainly was a beautiful sight sitting there glistening in that California sunshine.

A little boy who had crawled over the factory fence despite the "No Trespassing" sign evidently thought so too, for he was standing there gazing raptly at it with eyes as big as silver dollars when I stalked out toward the ship to make a first test hop in it. He intercepted me neatly as I rounded the wing tip and approached the cockpit.

"Ooh, mister," he said, "do you own that ship?"

"No, sonny," I answered. "I merely fly it. I find that that is less expensive and more fun."

### CROSS-COUNTRY SNAPSHOTS

I take off from March Field, Calif., head north and climb steeply. At ten thousand feet on the altimeter I see the green fir trees skimming only a couple of hundred feet beneath me. I see the deep snow between their trunks, brilliant in the sun. I am clearing the San Bernardino range.

I come out at ten thousand feet over the Mohave Desert, my altimeter still reading ten thousand feet. The floor of the Mohave is high.

I look ahead to the railroad, thirty miles away. I look behind. The green-sloped, snow-capped Bernardinoes form a backdrop for the desert underneath.

On beyond the railroad, beyond Barstow, into the Granite Mountains, low, rolling, black, barren, lava-formed.

Into the Painted Hills. They are not named that on the map. They are not named at all, and at first I can't believe them. But there they are beneath me. No atmospheric trick. No effect of distance. No subtle color either. They are really painted. There is one over there. It sweeps out of the desert upward into green and ends in a peak of white. There is another, sweeping through purple to red. Others through red to yellow. It is as if God had been playing with colored chalks, picking up purple, perhaps, powdering it through his fingers to drop in a purple heap, picking up another color then to drop on top of that in powdered brilliance, powdering then on top of that another color still to form a brilliant, pointed tip. Fantastic, unreal, true!

For a long time now I have seen no life. The brilliant land is barren. I look back. I can still make out where the railroad runs. Far, far behind, the white Bernardinoes rise, low on the horizon now in the distance. It is not a long flight back to the railroad, or even a very long one back to the mountains and over them into the green San Bernardino Valley and March Field. But it is a long walk. It is a long walk back even to the railroad. What if my motor quits? I had intended to go on to Death Valley, just to see it, circle, and return.

I bank reluctantly around and assume a reverse compass course for home. I have seen enough for an afternoon's jaunt, anyway.

### REMINISCENCE

I taxi out and turn my ship into the wind at the end of the snow-plowed runway at Hagerstown Airport, Maryland. The white hangar looms too close. Deep snow on the rest of the field prohibits its use. Can I get over the hangar? I give it the gun and try. Just miss the hangar. Too close!

Head off on a compass course for New York. Strong drift to the right from northwest wind. Head a little more to left.

Blue Ridge Mountains pass under me. On into the friendly undulating valley country beyond, snow covered.

Gettysburg under my left wing. They were fighting down there once. Hard to believe, looking down on the peaceful fields now. Wonder what they would have done if they could have looked up and seen me and my airplane?

Low hills before the Susquehanna River. Their brown contours reach like dusky fingers out into the snow-filled valleys.

Over the river, and Lancaster off to my left. Reform school there. That's where they were always going to send me when I was a bad little boy.

More valley country. Ridge-like hills. The Schuylkill River and Norristown. Philadelphia, blue laws, and no movies on Sundays far off to my right.

More valley. The Delaware River. Washington crossed the Delaware. I cross it in half a minute.

The Sourland Mountains and Lindbergh's sad white house. I see Flemington and know the trial is going on down there. I remember walking with Lindbergh, ten years ago, from San Antonio, Tex., to Kelly Field, where we were both advanced flying students. "What are you going to do when you graduate?" he asked. "What are you going to do?" I asked him. Yes, what were we going to do? And now he was down there in that courtroom, and the world stretching out around him as far as I could see and much, much farther was a cocked ear listening again to his tragedy. And I was circling above in the clean blue sky, remembering many things and thinking.

I shuddered a last long unbelieving look at Lindbergh's empty, lonely house, perched up on its hill, circled and flew on. Half an hour later, on Long Island, I kissed the chubby cheek of my own first-born son in greeting and pitied Lindbergh somewhat for his fame.

### **MEXICAN WHOOPEE!**

I hadn't seen Darr Alkire since I had resigned from the army several years before, so when I dropped into March Field, Calif., to say hello and he told me that he and a couple of the other officers were flying three ships down to Mexacali on the Mexican border that afternoon to return the next and asked me to go along, I said yes.

I flew down in the rear seat of Darr's ship, and when we landed and crossed the border everybody proceeded to get drunk. Everybody but Yours Truly. I had been on a party the night before I had dropped in to see Darr and didn't feel up to it.

The next morning we met a Mexican captain, and everybody had to drink a lot of drinks to each other. I still threw mine over my shoulder.

That afternoon the Mexican captain had to escort us to the airport, just to say good-bye to us. The leader of our formation then, no sooner had we taken off, had to lead us in some diving passes at the Mexican captain, just to say good-bye to him.

They were having a lot of fun dusting their wings on the airport, saluting the captain, but I wasn't! Darr was sticking his wing in too close to the leader's for comfort. I had a set of dual controls in the rear cockpit and couldn't resist just a little pressure on them to ease his wing away from the leader's in some of the passes or to pull him up just a little sooner in some of the dives. It was a heluva breach of flying ethics, but after all I was sober!

We got back to March, and Darr, sobered by then, began telling me what a swell guy I had been to sit back there and take it. He said he would have taken the controls away from me, had I been flying drunk, and he sitting back there sober. I thought he was razzing me for a moment, but saw that he really meant it. My pressure on the controls had been so subtle that he hadn't noticed it.

I didn't bother to tell him the truth. I liked the idea that he thought I had had enough sand to sit there and not interfere with him. I didn't have enough nerve to set him straight on the matter.

# IT'S A TOUGH RACKET

The hazards of a pilot's life are sometimes different than some people suppose.

For instance, I flew some people to a ranch in Mexico once. I fought bad weather most of the way from New York to Eagle Pass on the Border, skimming mountains and swamps, and then flew eighty miles of barren mountain and desert country to the ranch house.

They insisted the next day that I go out hunting with them. That meant that I had to ride a horse. I had ridden a horse once before in my life and remembered it as the most uncomfortable means of transportation ever invented by man.

But I went with them. I even began to like it after we had been out a while. I discovered that you could wheel the horse around in a running turn and that it was almost like banking an airplane around. I was having pretty good fun experimenting until I noticed that a certain portion of my anatomy was getting very warm, and then, soon, that it was getting very tender. Pretty soon I began to think that we would never get back to the ranch house. When we finally did, my pants and my anatomy were brilliantly discolored. And when I went to take the pants off, I noticed that quite a bond had developed between me and them, quite an attachment indeed! They were stuck fast and could be persuaded away from me only with their pound of flesh.

I decided that I would stick to my airplane after that. But the next day, I discovered that my airplane was uncomfortable too—and I had to make a five-hour flight to Mexico City.

When I got to Mexico City everything was uncomfortable, and I had to eat my dinner off the mantelpiece that night. There was an additional humiliation. The doctor had to undress me. He had to use plenty of hot oil and go very easy.

### **ALMOST**

Bunny had trusted me on the outward trip, so now, returning to March Field, Calif., I comforted myself in the rear cockpit of our army DH with the thought that Bunny could fly as well as I.

San Francisco lay behind us. The Diablo Mountains were beneath. Snug around us, familiar and friendly, was our ship.

But beyond, strange and ominous by now to Bunny and me because we had hardly ever flown in it before, and never for so long, stretched like a white, opaque, and directionless night the fog.

The ship felt as if it were flying straight, but when I peeked over Bunny's shoulder I saw the needle on his bank and turn indicator leaning halfway over to the right. I watched it start back then—Bunny was all right—to the center. But slowly then, inexorably—Bunny! Bunny!—the needle leaned over to the left. The ball was centered, so the turns were good. But that was not enough. Where were we going? Were we weaving? Circling? Which way were we turning mostly? The ocean was not far off to our right.

Then something else—ice! Its white hands gripped the front of wings, the leading edge of struts and wires. The prop got rough. The motor beat and strained. Once the ship shivered. I saw one aileron go down. Bunny was trying to hold a wing up. I saw the needle straighten. He had held it. But I saw something else too! I saw the altimeter losing. No hope for blue sky now. No hope to ride on top until we found a hole, as our weather report had indicated that we would. How far were the mountain tops beneath us? Would the ice melt off before we sank too far?

I saw the throttle moving backward, heard the motor taper off its friendly roar, heard Bunny's voice sound out like thunder in white doom.

"Let's jump," he shouted, turning his head halfway.

Were there mountains to land on and walk on in the depths of that white down there? Or had we circled out over the ocean?

"Let's not. Let's wait. Let's try once more," I shouted back.

Then I shouted again, scraped my fingers on the windshield, reaching, grabbed Bunny's shoulder, but too late. Even as I shouted, reached, and grabbed, the ship banked on its ear, wheeled over, and dove safely through a brown passage tunnel to the earth. Bunny had seen it too—a hole in the fog, and through it, ground.

The warmer lower air flowed over us. The ice dripped from our wings in glistening drops. We came out in the San Joaquin Valley with plenty of ceiling, and it was plain sailing from there on.

### **RUN! RUN! RUN!**

It is a bright, golden day in Texas. A little Mexican boy is working in a field of sugar cane just back of Kelly Field. The airplanes from the field are droning in the sleepy air above his head. Occasionally he pauses in his work to glance half curiously at one of them. He is not much interested in them. They are like the automobiles swishing endlessly past on the highway near by. He is accustomed to them. And besides, they are not of his world.

Sometimes the long motor roar of a ship coming out of a dive attracts his half-hearted attention. Occasionally an intricate formation maneuver over his head warrants his momentary gaze. Often he stares, half abstractedly, skyward while he works. Like a shoe cobbler in a window watching the crowds passing in the street.

This time, however, a curious interruption in the steady beating drone of a three-ship formation of DHs passing over him makes him involuntarily raise his head from his work. It is a strange sound, somehow ominous to him. He is accustomed to hearing the motors run. Even their tapering off for a landing is a different noise than this one. His unknowingly trained ears and maybe some strange premonition tell him that.

He sees two of the three ships locked together in collision. He sees them, startlingly silent and arrested in their flight, falling in their own débris. He sees two black objects leave the wrecks. He sees a white streamer trail out behind each of them and then blossom open into two swinging, slowly floating parachutes. He stands with his head thrown back, his Indian eyes rapt in his Asiatic face.

Suddenly he is alarmed, then full of fear. The two milling wrecks, black harbingers of doom by now, are going to fall on him. He begins to run. Any way, any direction at all. He runs as fast as his little brown legs will carry him. He covers a considerable distance from where he was standing by the time the wrecks hit.

The spot he runs from, unruffled, undisturbed, lies warming, sleeping in the sun. The wrecks don't hit that spot. They hit him, running.

The world that was not his has folded darkened crumpled wings of death around him.

### **HIGH FIGHT**

One of the briefest and most amusing family fights I have ever listened in on occurred in an airplane. I was flying its owner and his wife to the coast.

We came in over the Mohave Desert, crossed the mountains at the desert's western edge, and started out over the valley, where I knew Los Angeles lay thirteen thousand feet beneath us. The valley and the ocean beyond were covered with fog, and I could see nothing but the white, billowed stretch of it and the tawny mountains rising out of it behind us.

I spiraled down and went through a hole in the fog near the foot of the mountains. It was lower and thicker underneath than I had hoped. I picked up a railroad and started weaving my way along it into the airport.

The owner of the ship, sitting on my right, was helping me with my map, holding it for me. His wife, sitting behind me, was squirming anxiously in her seat and peering tensely out of the windows through the low mists.

Soon she tapped me on the shoulder and said, "Aren't we flying awfully low?"

I half turned my head and shouted, "Yes, the ceiling is awfully low." I wanted to add, "You fool," but didn't dare.

"Isn't it dangerous?" she whined.

"We're all right," I shouted. "I've flown stuff like this before. I can handle it."

Pretty soon she tapped me on the shoulder again. "Where are we?" she inquired.

"I can't tell you the exact spot," I shouted, "but we are still on the right railroad and will be coming into the airport in a few minutes."

We passed over a town section just then, and the railroad branched three ways under us. I made a quick jump at my map to check which of the three I should follow. The wife saw me jump and must have seen that I looked worried. She tapped me on the shoulder again.

"Oh, are you sure we are going the right way?" she whimpered.

I started to turn around to explain to her what I was doing and why, realized my flying required all my attention right then, cast an appealing glance at her husband, clamped my jaws tight, and started studying landmarks. We were in close to the airport, and I didn't want to miss it.

I heard the husband shout one of the funniest mixtures of supplication and command I have ever heard.

"Now listen, honey," he shouted at her. "You keep your damn mouth shut, sweetheart."

### **GESTURE AT REUNIONS**

It is the year before Lindbergh becomes famous. I have graduated in the same class with him from the army flying school the year before and have seen him only twice since. I am on an army cross-country trip, bound for St. Louis, when I land at Chicago and run into him. He is just taking off with the mail, bound for St. Louis too, and we decide to fly down together in formation.

It is getting dark when we sight the river at St. Louis in the distance. Lindbergh shakes his wings. He is calling my attention. I pull my ship in close to his. I see him pointing from his cockpit. I look ahead and see a speck. It grows rapidly larger. I make it out as another DH approaching us head on from the deepening dusk. It comes up, swings around into formation with us, and sticks its wing right up into mine. Its pilot peers at me, and I peer at him. We recognize each other. It is Red Love. Red, Lindbergh, and myself were three of the four cadets in our pursuit class at flying school. Looks like a class reunion in the air.

But no. Lindbergh is shaking his wings. He is banking. He is pointing down. He spirals down, circles a field, flies low over it several times, dragging it, looking it over carefully, and lands. Red and I follow.

Lindbergh and I crawl out of our ships with parachutes strapped to us. Red crawls out of his without one. Lindbergh takes his off as the three of us converge for greetings.

"You will need this getting the mail on into Chicago the rest of the way in the dark tonight," he says to Red, holding the chute out to him.

"It's the only one in the company," he says, turning, explaining to me, "and I won't need it for the few miles on into St. Louis from here."

We say hasty greetings and good-byes, crawl back into our still idling ships, and take off. Lindbergh, chuteless now, heads off south for St. Louis, and I follow. Red swings off in the opposite direction for Chicago.

I look back. I see Red disappearing into the darkening north. I know he feels better now, sitting on that chute.

# AS I SAW IT

I had to go to Cleveland to bring back a ship that a student of mine had left there in bad weather. I got on an airliner, with a parachute. The chute was for use on the way back.

The airline porter wanted to put my chute in the baggage compartment. My argument was: "What good would it do me there?" The porter looked offended, but I kept my attitude and took my chute to my seat with me.

We took off from Newark after dark. The weather was bad, and we went blind three minutes after we took off.

I tried to console myself with the thought that the pilots were specially trained in blind flying, that they had instruments, had two motors, had radio, that everything was just ducky. But I couldn't even see the wing tips.

I tried to read my magazine. I found myself peering out of the windows through the darkness to see if we had come out on top yet.

I tried to nap. I found myself hearing the motors getting slightly louder, knowing we were nosing down; feeling myself getting slightly heavier in my seat, knowing the pilot was correcting; hearing the motors begin to labor slightly, knowing we were nosing up; feeling myself getting ever so slightly lighter in my seat, knowing the pilot was correcting again; telling myself repeatedly that he knew his stuff and that there wasn't anything I could do about it anyway, but sitting there going through every motion with him just the same.

Two hours later we were still blind, and my nose was pressing up against the windowpane almost constantly. The other passengers probably thought I had never been in a ship before.

Half an hour later we were still blind and only half an hour out of Cleveland. We broke out of the stuff finally just outside of Cleveland. We were flying low, and the lights were still going dim under us as we skimmed along not very far above them. There wasn't much ceiling when we landed, and it closed in shortly after that.

Most of the passengers roused themselves from sleep when we landed. I was plenty wide awake. I knew that ship hadn't had much gas range. If we had got stuck, we would have had to come down someway before very long. If those passengers could have read my mind, or I think even the pilot's, there probably would have been a battle in the cabin over my chute.

### WAS MY FACE RED!

I took off at Buffalo one time to do a test job. I had been called up there as an expert and was supposed to be pretty hot stuff.

I took the ship off and started rocking it violently from side to side. I kept this up through a variety of speed ranges, watching the ailerons closely all the time. I wanted to find out first of all if the ailerons had any tendency to flutter under a high angle of attack condition. Then I began horsing on the stick to see if anything unusual happened to the ailerons when I introduced the high angle of attack condition that way.

I interrupted my observations of the ship's behavior after a while to look around for the airport. I couldn't find it! I had forgotten that I was in a high-speed ship and could get far away from the field in a very short time. Furthermore, the country was unfamiliar to me, and I had no map. Gee, if I had only thought to stick a map in the ship before I took off.

I knew the airport was somewhere on the west side of town. I thought it was somewhat north. But how far north I didn't know. I couldn't remember even if it was close in to town or far out. I had a vague idea it was far out, but how far out I didn't know. If I had only thought to bring a map! Or if I had only kept the airport in sight. Good old hindsight!

I was panic-stricken. There I was, a supposedly high-powered test pilot, lost over the airport. What a dumb position for me to be in!

Before I found the airport by just cruising around looking haphazardly for it, I might be forced down by the weather, which was none too good and getting worse, or I might run out of gas. What if I was finally forced to pick a strange field, a pasture or something, and cracked up getting into it? How would I explain that?

I decided to cruise north and south, up and down, in ten- or fifteen-mile laps, starting far enough out of town to be sure to fly over the airport on one of the laps as I moved closer in on each one. That would be at least an orderly procedure.

I found the field on my fourth lap. But was I in a sweat! And did I keep my eye on that field after that!

# CO-PILOT

Dick Blythe, who handled Lindbergh's publicity not only after Lindbergh came back from Paris but also, as Dick stated to me, just before Lindbergh went to Paris, is a bit of aviation folklore in himself.

I just ran into Dick over at the Roosevelt Field restaurant, and he told me this one about Dean Smith. Dean is one of the oldest air-mail pilots. He started flying the mail 'way back in the postoffice days, just after the war. He is a lean six-foot-two, easy-going guy who would never talk much about his flying.

Dick caught him just after he had returned from one of his crackups in the Alleghanies in the old days when Roosevelt Field was called Curtiss Field and the mail went out of there instead of out of Newark as it does now. Dean was just pouring his long self into the cockpit of another DH to take the night mail out again.

"Where in the hell have you been?" Dick greeted him.

"Oh," Dean said, "I had a hell of a time the other night. Just got back."

"What happened?" Dick asked him.

"Aw, I got tangled up with a load of ice after dark. She started losing altitude, and I eased a little more gun to her. She kept on losing, so I eased a little more gun to her. She still kept on losing, so I eased all the gun she had. She was squashing right down into the trees. I had done everything I knew and couldn't hold her up. So I said, 'Here, God, you fly it awhile,' and turned her loose and threw my arms up in front of my face.

"I guess it must have been tough, because He cracked her up. He piled into that last ridge just outside of Bellefonte."

### **ORCHIDS TO ME!**

The late Lya de Putti, German screen actress, paid me the nicest compliment of all.

She was up front in the two-place passenger compartment of a Lockheed Sirius. The owner of that plane was in the pilot's open cockpit just back of her. And I was behind him in the rear cockpit.

He had insisted, against my better judgment, upon getting into that pilot's cockpit in the first place. But, after all, he owned the ship, I was only his pilot, and there was a set of dual controls in the rear cockpit.

The motor quit cold over Whitehall, N. Y., because we ran out of gas in one of the six tanks in the ship. I shouted back and forth with the ship's owner, halfway to the ground, trying to tell him how to turn on one of the other five tanks. There was a complicated system of gas valves in the ship, and I couldn't make him understand what to do, and I couldn't reach the valves myself.

Finally I shouted, "You play with them. I'll land," and stuck my head out and looked around. We were already low. I picked a small plowed field, the only likely-looking one in the mountainous country, and started into it.

I was coming around my last turn into the field when I discovered high-tension wires stretching right across the edge of it. I was too low to pick another field. The field was too small to go over the wires. I had to go through a gap in the trees to get under them.

I kicked the ship around sidewise. The trees flashed past me on either side, and I hit the ground. The wires flashed past over my head. I used my brakes and stopped the fast ship very quickly in the soft ground. If we had rolled fifty feet farther we would have hit an embankment that rose sharply at the far end of the field.

I crawled out of my cockpit and started to help Lya out of her cabin. She was already emerging, fanning herself with a handkerchief. She spoke with a German accent.

"Oh, Jeemy," she said, "all the way down I pray to God. But I thank you, Jeemy. I thank you."

### RECOVERY ACT

Johnny Wagner came up to me for his transport pilot's license test. I was the inspector for the Department of Commerce. Johnny knew I was "tough." As a matter of fact, he figured I was much tougher than I was.

I knew Johnny and liked him. He was crazy about flying and had worked hard to get his flying training. He had pushed ships in and out of hangars, washed them, acted as night watchman and office boy, done anything and everything to pay for his flying time. But I didn't have the slightest idea how he flew. And after all, you may be a swell guy but not be able to fly worth a cent, and a transport test is supposed to determine whether you are safe to carry passengers.

I found out three minutes after Johnny got in the ship how he flew. Nevertheless, I made him go all through the test. When he came to steep banks I made him pull them in tight. He was reluctant to do it, so I took the ship to do it myself to show him. I could see right away why he was reluctant. It was the way the ship was rigged. It had a tendency to roll under in a tightly pulled in steep bank. But I wanted to see what he would do with it, so I made him do it. He did, and rolled right under into a power spin. He had gone into an inadvertent spin, the unforgivable sin in a flight test.

I started to reach for the controls but let him go. When he had pulled out of the spin I told him to land.

He got out of the ship with his face as long as a poker. He couldn't even talk, the test had meant so much to him. I didn't say anything for a moment, then with a stern face I said roughly, "Well," and waited a moment. The poor kid was getting all set for the worst. I could tell by his face.

"Well," I went on, "you passed," and I smiled broadly at him.

His mouth fell open. "But—but—" he stuttered—"but I spun out of that steep bank!"

"Yeah, I know," I said. "But you also recovered. It was the way you recovered. You stopped that spin like that and recovered from the resultant dive neatly and smoothly, with a minimum loss of altitude and still without squashin' the ship. It was a beautiful piece of work and told me more about your flying than anything else you did, although I could tell in the first three minutes that you could fly." I never saw a kid beam so much.

Johnny is now flying a regular run over the Andes in South America for Pan American Grace.

# "A ROSE BY ANY OTHER NAME..."

I delivered a plane at a ranch in Mexico a few years ago for Joe and Alicia Brooks. I was to take back the ship they had been using. The ranch was about eighty miles over the border from Eagle Pass. The Brookses planned to leave with me and fly formation to New York. Both planes had approximately the same cruising speed. Alicia and I flew in one ship. Sutter, the mechanic, flew with Joe in the other.

The day we started didn't look too good. Thick gray clouds were rolling in from the northeast. There was no way we could check our weather till we got to Eagle Pass. We had to take a chance on the eighty miles.

Joe led the way, and everything went fine at the start, but the nearer we got to Eagle Pass the worse the weather got. We were flying on top of a jerkwater railway, just missing the tops of the trees, when we bumped into a solid wall of fog. Joe disappeared into it. I stuck my nose in the stuff and pulled out: there was no percentage in two planes milling around blind. Too much chance of collision. I picked out a spot in between the cactus and landed. There was nothing to do but wait. If Joe came out he would come out on the railway and we would see him. Ten uncomfortable minutes passed. We heard a motor. Joe reappeared. He circled and landed alongside of us.

By this time the planes were surrounded by a herd of angry shrieking Mexicans. There must have been over a hundred of them. They didn't seem to like us, but we couldn't find out why. None of us spoke Spanish. Finally an official-looking fellow appeared with a lot of brass medals on his coat. He made us understand through the sign language that he wanted to see our passports. We couldn't find them. The atmosphere was most unpleasant. We had visions of spending the next few days in a flea-bitten Mexican jail.

Then it occurred to me that I did know one Spanish word. Might as well use it, I thought, and see what happens. "Cerveza" I commanded. The Mexicans looked startled. "Cerveza" I commanded again. The Mexicans started to laugh.

The next thing we knew, we were sitting at a Mexican bar drinking beer with a lot of newfound friends. Cerveza is the Spanish for beer.

"YES, SIR!"

Our jenny hit the ground wheels first and bounced dangerously. My instructor in the cockpit in front of me grabbed his controls, gave the ship a sharp burst of the gun, and set her down right. We were in a little practice field near Brooks Field in Texas.

My instructor turned around to me: "Damn it, Collins," he said, "don't run into the ground wheels first like that. Level off about six feet in the air and wait until the ship begins to settle. Then ease the stick back. When you feel the ship begin to fall out from under you, pull the stick all the way back into your guts and the ship will set itself down. Go around and try it again."

"Yes, sir."

I came in the next time, hit the ground wheels first, and bounced. My instructor righted the ship.

"No, Collins. No," he fumed. "Six feet. Look, I'll show you what six feet looks like."

He took the ship off and flew over the open fields, then came around and landed.

"Now do you know what six feet looks like?" he shouted back to me.

"Yes, sir," I lied. I was afraid to tell him that I could not see the ground right. He might send me to the hospital to have my eyes examined. They might find some slight defect in my eyes that they had overlooked in the original examination and wash me out of the school.

"Well, then, go around and make a decent landing for me," my instructor said.

"Yes, sir."

I leveled off too high the next time. My instructor grabbed his controls and prevented us from cracking up.

"Damn it, Collins," he shouted when the ship had stopped rolling, "don't run into the ground wheels first. And don't level off as high as the telegraph wires. Level off at about six feet. Then set her down. Now go round and try it again."

"Yes, sir."

"Damn it, Collins, don't sit back there and say 'Yes, sir' and then do the same damned thing again."

"No, sir."

### MOONLIGHT AND SILVER

Pat paints. She also flies.

Pat and I landed at Jacksonville, Fla., late one night in Pat's Stearman biplane. Pat was taking cross-country instruction from me. We gassed hurriedly and took off again. We left the glare of the floodlights behind us as we headed our ship along the line of flashing beacons stretching southward toward Miami. The stars were brilliant in the cloudless sky, but the night was very dark. There was no moon.

Soon we were flying down the coast. White breakers rolled in under us from the Atlantic Ocean on our left and dimly marked the coast line. Swamps stretched away to the inland on our right but were invisible in the black night. Beacons flashed brilliantly out of the darkness in a long line far behind us and far ahead. Blotches of lights slipped slowly past under us when we flew over towns.

We saw clouds ahead. We nosed down under them. We had to fly uncomfortably low to stay under the clouds. We nosed up to get above them.

We flew into them. The lights beneath us dimmed and disappeared. We climbed in opaque blackness, flying by instruments.

We emerged into an open space where the clouds were broken. The lights reappeared. The stars became visible.

The clouds spread out under us to the horizon in all directions. They were lit a dim silver by the stars. They softly undulated like a mystic, limitless sea beneath us.

Now and then we saw a break in the clouds and caught the flash of a beacon through it or saw the lights of a town. We caught glimpses of dim breakers rolling in on the beach far down under the clouds.

Something I couldn't explain was happening. The sky in the east was getting lighter. It was only about midnight. I looked at the western sky and then looked back at the eastern sky. Yes, the sky was definitely getting lighter in the east. Half an hour later the eastern sky was much lighter than the western sky.

I watched toward the east.

I saw a thin, blood-red tip of something rise up from the eastern horizon. The top of the object was rounded. The bottom of it was irregular in shape. The object got larger rapidly.

"The moon!" I shouted out loud to myself.

It rose rapidly. Invisible clouds far out at sea, silhouetted against

the moon, gave the bottom of it its irregular shape.

The moon got up above the clouds in an incredibly short time. It was a full moon, golden and glorious. It made the clouds between me and it seem darker. It made the sea beneath the clouds silver. Through the large breaks in the clouds I saw a beam of moonlight like a golden path from the moon across the sea to the beach beneath us. The beam traveled with us. It raced across the sea under the clouds at the same speed that we flew through the air above the clouds.

I eased the throttle back and slowed the ship down.

"Paint that some day," I shouted to Pat.

Pat was gazing out across the ocean toward the moon. She didn't say anything. I knew she had heard me.

### FIVE MILES UP

I was stationed at Selfridge Field after I graduated from the Advanced Flying School at Kelly. The Army Air Corps' First Pursuit Group was at Selfridge. The officers used to gather every morning at eight-fifteen in the post operator's office. We would be assigned to our various functions in the formation. Then we would fly formation for an hour or so, practicing different tactical maneuvers. After flying we would gather at the operations office again for a general critique, which was supposed to conclude the official day's flying. We would separate from there and go about our various ground duties. I discovered I could quickly finish my ground duties and have a lot of time left over for extra flying. I used to bother the operations officer to death asking him for ships. He usually gave me one, and I would go up alone and practice all sorts of things just for fun. It was no part of my work. It was pure exuberance.

One day I was flying around idly in a Hawk. I decided I would take the Hawk as high as I could, just for the hell of it.

I opened the throttle and nosed up. I gained the first few thousand feet rapidly. The higher I went the slower I climbed. At 20,000 feet climbing was difficult. The air was much thinner. The power of my engine was greatly diminished. I began to notice the effect of altitude. Breathing was an effort. I didn't get enough air when I did breathe. I sighed often. My heart beat faster. I wasn't sleepy. I was dopey. I was very cold, although it was summer.

I looked up into the sky. It was intensely blue, deep blue; bluer than I had ever seen a sky. I was above all haze. I looked down at the earth. Selfridge Field was very small under me. The little town of Mount Clemens seemed to be very close to the field. Lake St. Clair was just a little pond. Detroit seemed to be almost under me, although I knew it was about twenty miles from Selfridge Field. I could see a lot of little Michigan towns clothing the earth to the north and northwest of Selfridge. Everything beneath me seemed to have shoved together. The earth seemed to be without movement. I felt suspended in enormous space. I was 23,000 feet high by my altimeter.

I was dopey. My perception and reaction were ga-ga. I was cold, too. To hell with it. It said 24,500 feet. I eased the throttle full and nosed down.

I lost altitude very rapidly and with very little effort at first. After that it got more and more normal. I didn't come down too fast. It was too loud on my ears. I came down fairly slowly, so as to accommodate myself to the change in air pressure as I descended.

It was warm and stuffy on the ground.

I saw the Flight Surgeon at dinner that evening.

"I worked a Hawk up to 24,500 feet today," I told him proudly. "Gee, it sure felt funny up there without oxygen."

"Without oxygen?" he asked.

I nodded my head.

"You're crazy," he said. "You can't go that high without oxygen. The average pilot's limit is around 15,000 to 18,000 feet. You're young and in good shape. Maybe you got to twenty. But you just imagined you went higher than that."

"No, I didn't imagine it," I said. "I really went up that high."

"You went ga-ga and imagined it," he said.

He added: "Don't fool around with that sort of business. You're likely to pass out cold at any moment when you're flying too high without oxygen. You're likely to pass out cold and fall a long way before regaining consciousness. You might break your neck."

# AËRIAL COMBAT

I was flying in a student pursuit formation of SE-5s. Another student pursuit formation of MB3As was flying several thousand feet above us. The formation above us was supposed to be enemy pursuit on the offensive. My formation was supposed to be on the defensive. We were staging a mimic combat. Kelly Field, the army Advanced Flying School, lay beneath us.

I had to watch my flight leader, the other ships in my formation, and the enemy formation.

I saw the enemy formation behind us and above us in position to attack. I saw it nose down toward us.

I looked at my flight leader's plane. He was signaling a sharp turn to the left. He banked sharply to the left. Everybody in our formation banked sharply to the left with him. The attacking formation passed over our tails and pulled up to our right.

I saw the attacking formation above us to our right, banking to the left, nosing down to attack us broadside.

I looked at my flight leader. He was signaling a turn to the right. He turned sharply to the right. Our whole formation turned with him. We were heading directly into the oncoming attack of the other formation.

Just as I straightened out of my turn my ship lurched violently and I got a fleeting impression of something passing over my head. I couldn't figure out what had happened. My leader was signaling for another turn. I followed him through several quick turns in rapid succession. We were dodging the enemy formation. I kept trying to figure out what had happened when my ship had lurched.

Then it occurred to me: Somebody in the attacking formation, when the formation had been diving head on into ours, had pulled up just in time to keep from hitting me head on. I had passed under him and immediately behind him as he pulled up, and the turbulent slip stream just back of his ship was what had caused my ship to lurch.

I felt weak all over. God, how close he must have come, I thought!

Later, on the ground, we stood around our instructors, listening to criticism of our flying. I wasn't listening very much. I was looking around at the faces of the other students. I saw another student looking around too. It was Lindbergh. He had been flying in the attacking formation. After the criticism was over I walked up to Lindbergh.

"Say," I said, "did you come close to anybody in that head-on attack?"

He grinned all over.

"Yes," he said. "Was that you?"

"Yes."

"Did you see me?" he asked.

"No," I said. "I 'felt' you."

"It is a good thing you didn't see me," Lindbergh said, "because if you had seen me you would have pulled up, too, and we would have hit head on."

### WINGS OVER AKRON

Tom was flying in front of me to my left. We both had PW-8s. We were heading toward Uniontown, Pa. They were opening a field there. We were going to stunt for them. We were flying 7,000 feet high in a milky autumn haze. The rolling Ohio country beneath us was visible only straight down and out to an angle of about 45 degrees. Beyond that the earth mingled with the haze and was invisible.

I saw a town over the leading edge of my lower right wing. I recognized it as Akron, O. I pushed my stick forward and opened my throttle. I had always wanted to jazz the fraternity house in a high-powered fast ship.

Down I came. Roaring louder and louder. I couldn't see a soul in the yard of the fraternity house.

I missed the house by inches as I pulled sharply out of my dive and zoomed almost vertically up for altitude. I looked back as I shot up into the sky. The yard was full of fellows.

I kicked over and nosed down at the house again. I came as close to it as I could without hitting it as I pulled back and thundered up into the air.

I nosed over into a third dive at the house. As I pulled up this time I kicked the ship into a double snap roll as I climbed. I didn't look back. I just kept on climbing, heading for Uniontown. I overtook Tom a little while later.

On my return trip from Uniontown I was forced down at Akron owing to bad weather. Tom had gone back a day earlier than I. I was alone.

Friends of mine at the airport came up to me as I climbed out of my ship. They asked me if I had flown over Akron in a PW-8 a few days before. I said, "No. Why?" They showed me a clipping from a local newspaper. It said:

### AIRMAN STARTLES AKRON—MANY LIVES ENDANGERED

At noon today a small fast biplane appeared over Akron and proceeded to throw the populace into a panic by performing a series of zooms and dives and perilous nose spins low over the business section of town. Onlookers said that the plane narrowly missed hitting the tops of the buildings and that it several times almost dove into the crowds in the streets.

Hospital authorities complained to city officials that the plane roared low over the hospital, frightening many of their patients and endangering the lives of others. Other complaints have rolled in from all over the city. City officials told reporters that the name of the pilot is known. He was a former resident of Akron and was a student at Akron University. At present he is on duty with the Army Aviation Service. Officials said they had reported the outrageous act to the military authorities at the pilot's home station.

"I wonder who that damned fool could have been," I said as I handed the clipping back to my friends. I grinned.

I was staying with my uncle. I didn't have much appetite for dinner that night. I didn't sleep very well.

"What is the matter, Jim?" my uncle asked me at breakfast the next morning. "Why don't you eat more?"

"I don't feel very well," I said.

I got back to Selfridge that afternoon. Nobody there had heard of my escapade.

I ate a big dinner that evening.

#### TEARS AND ACROBATICS

"Go around and try it again," I shouted.

"Yes, sir," the cadet in the rear cockpit behind me shouted back.

I felt the throttle under my left hand go all the way forward with a jerk. I pulled it back.

"Open that throttle slower and smoother," I shouted back. I didn't look round. I just turned my head to the left and put my open right hand up to the right side of my mouth. That threw my voice back.

"Yes, sir," came the cadet's voice from the rear cockpit.

I felt the throttle under my left hand move forward slowly, smoothly. The engine noise rose louder. The ship rocked and bumped slowly forward over the rough ground. The tail of the ship came up, and the nose went down. The nose of the ship veered to the left. I wanted to kick right rudder to bring the nose back. I just sat there. The nose swung back straight and then veered badly to the right. I wanted to kick left rudder and bring the nose back. I didn't move. The nose stopped veering. We were going pretty fast. We bumped the ground once more and bounced into the air. We stayed there. I took my nose between my left thumb and forefinger and turned my head to the left so the cadet behind me could see my profile.

The ship banked to the left. I felt a blast of air strong on the right side of my face and felt myself being pushed to the right side of my cockpit. We were skidding. I wanted to ease a little right rudder on and stop the skid. Instead, I patted the right side of my face several times with my right hand so the cadet could see it. I felt the rudder pedal under my right foot jerk forward. We stopped skidding. The ship straightened out of the bank and flew straight and level for a little way. It made another left-hand bank, leveled out again, and flew straight again for a little way. It did it again. I felt the throttle under my left hand come all the way back. The engine noise quieted down, and the engine exhaust popped a few times. The ship nosed down into a glide. It made another left turn in the glide and then straightened out. We were gliding toward the little field we had just taken off from. It was a little field near Brooks that the Army Primary Flying School used as a practice field.

"That was lousy," I shouted back. "You jerked your throttle open. You veered across the field on your take-off like a drunken man. Are you too weak to kick rudder? You skidded on your turns. You landed cross-wind. Go around and try it again. See if you can do something right this time." It was about the twentieth speech like that I had shouted back to the cadet that morning.

I felt the throttle under my left hand jerk forward. I pulled it back.

"Damn it, open that throttle slower and—"

A voice from the rear cockpit broke in on me:

"I hope you never get anyone else as dumb as I am, Lieutenant."

The voice was choked. The kid was crying.

"Hey, listen here," I said, "I give you a lot of hell because I'm as anxious for you to get this stuff as you are to get it. I wouldn't even give you hell if I thought you were hopeless. Sit back and relax and forget it a while now. You'll do better tomorrow."

The cadet started to open his mouth. I turned hastily around and sat down in my cockpit and opened the throttle wide open. The engine roared. I didn't hear what the cadet said.

I took off in a sharp climbing turn. I dove low at the ground, flew under some high-tension wires. I pulled up and dove low at a cow in a pasture. The cow jumped very amusingly. I pulled up and did a loop. I came out of the loop very close to the ground. It was all against army orders. It was all fun. I pulled back up to a respectable altitude and flew sedately over Brooks Field. I cut the gun to land. I looked back at the cadet. He was laughing. There were little channels in the dust on his face where the tears had run down.

#### ACROSS THE CONTINENT

It was 1:45 a. m. The lights of United Airport at Burbank, Calif., where I had left the ground fifteen minutes before, had disappeared. I knew the low mountains were beneath me, but I couldn't see them. I knew the high mountains several miles east of me were higher than I was, but I couldn't see them. I could see the glow of the luminous-painted dials in my instrument board in front of me. I could see the sea of lights of Los Angeles and vicinity south of me, stretching southeastward. I could see the stars in the cloudless, moonless sky above. I was circling for altitude to go over the high mountains.

At 13,000 feet I leveled out and assumed a compass course for Wichita, Kan. I passed over the high mountains without ever seeing them. I saw only an occasional light in the blackness beneath me where I knew the mountains were. I knew from my map that there were low mountains and desert valleys beyond.

Greener country. Fertile valleys. Mountains looming. The Sangre de Cristo range loomed high in front of me. Twelve thousand feet. I passed over it into the undulating low country beyond it. Soon I was flying over the flat fertile plains of western Kansas.

Gas trucks were waiting for me at Wichita Airport. Reporters asked me questions. They took pictures. They told me I was behind Lindbergh's time. A woman out of the crowd jumped up on the side of my ship and kissed me. I was off the ground, headed for New York, fifteen minutes after I had landed.

It was very rough. It was hot. I was miserable in my fur flying suit. I ached like hell from sitting on the hard parachute pack and wished I could stand up for a while. I hadn't had a chance to step out of the ship at Wichita.

Clouds gone. Towns closer together. Towns larger. Farms smaller. More railroads and paved roads. Industrial towns. On into the rolling country of eastern Ohio.

Pittsburgh was covered with smoke. The Allegheny Mountains were dim in a haze. It was getting dark.

Mountains beneath me in the dusk like dreams floating past. Stars appearing in the clear sky. Lights coming on in the houses and towns.

It was dark now. The flashing beacons along the Cleveland-New York mail run were visible off to my left.

New York. An ocean of shimmering light in the darkness, spreading immensely under me. Beyond stretched Long Island. I could see where the field ought to be. Did I see the Roosevelt Field beacon? Was that it?

What was that beacon over there? I saw hundreds of beacons. Beacons

everywhere. Every color of flashing beacon. Then I remembered it was Fourth of July night. I would have a hell of a time locating the field. Finally I distinguished Roosevelt Field lights from the fireworks, and dove low over the field. The flood lights came on. My red-and-white low-wing Lockheed Sirius glided out of the darkness, low over the edge of the field, brilliantly into the floodlight glare, landed and rolled to a stop.

There was a crowd at the field. Roosevelt was giving a night demonstration. People ran out of the crowd toward me. George jumped up on the wing and leaned over the edge of my cockpit. I was taxiing toward the hangar.

"That did it," Pick shouted over the noise of my engine.

"Did what?" I shouted back.

"Broke the record, boy!"

"You're crazy as hell," I answered. It took me sixteen and a half hours. Lindbergh made it in fourteen forty-five.

#### THE FLYER HIKES HOME

I was hanging around Roosevelt Field one afternoon with nothing much on my mind when a couple of friends came up and said they were just taking off for the South. They wanted to catch the Pan-American plane from Miami the next day. They were amateur pilots. The weather was lousy toward the South and they hadn't had much experience in blind or night flying. I said I would fly with them as far as Washington and maybe by that time the weather would clear. When we got to Washington the weather had pretty well closed down. I didn't like to see them start off in a fog bank with the sun already setting, so I volunteered to go to Greensborough. The stuff grew thicker. We were flying at two hundred feet and getting lower all the time. So when we landed at Greensborough there was nothing to do but stick with the ship. We took off for Jacksonville after a scanty supper. It was one o'clock in the morning. By that time I could barely make out the beacon lights. I turned to the girl sitting next to me and told her that if we lost the beacon behind us before we saw the one ahead of us we would have to turn back. At that moment both beacons disappeared. I started to bank the ship towards home. And then suddenly the whole sky lightened up. It looked as though a huge broom had gone to work to tidy up the clouds.

We landed at Jacksonville at five in the morning without further mishap. I said good-bye to plane and passengers and then started wondering how I was going to get back to New York. I decided to hitch-hike and save the train fare. It took me three days. When I appeared at the house with a straw behind each ear and a suit full of holes my wife thought I had gone crazy.

#### KILLED BY KINDNESS

Earle R. Southee was so good-hearted he killed a guy. I don't mean that he actually killed him, but you can see for yourself from the following story that, nevertheless, he killed him.

Southee was a civilian flying instructor to the army before the war, when the Signal Corps was the flying branch of the army. He was also an instructor during the war, after the Air Service had been created.

It was while he was instructing at Wilbur Wright Field during the war that he met up with this guy. The guy had come down there to learn to fly and then go to France and shoot Germans—or get shot by them. For some reason or other he couldn't pick the stuff up. Some people are like that. They simply can't get going when they first start to learn to fly. Most of them actually have no flying ability and ought to quit trying. It's not in their blood. But occasionally you run across one who later gets going and is all right.

This guy came up to Southee for washout flight. He was so obviously broken up over the idea that he was going to get kicked out of the Air Service into some other branch of service, he loved flying so much, that Southee took pity on him, held him over a while, gave him special instruction, and finally got the guy through. The guy even became an instructor himself, and a very good one.

Later, most of the gang was transferred to Ellington Field, Houston, Tex. At Ellington, this guy had such a tough time at first, got so hot, that he was made a check pilot and put in charge of a stage or section.

One day one of the students came up to him for washout check. The kid was just as broken up about it as he was. He gave the kid a chance, like Southee had given him. Three days later the student froze on him, spun him in, and lulled him.

### THE FIRST CRACK-UP

I sat in the cockpit of an army DH, high over southern Texas. I was heading toward Kelly Field, the Army Advanced Flying School. I was returning from a student trip to Corpus Christi.

I was looking behind me. Beyond the tail of the ship I could see the Gulf of Mexico. Far out over the Gulf was a low string of white clouds. The sky was very blue. The water flashed in the sun.

Occasionally I turned to scan my instrument board, but mostly I looked behind me. Purple distance slowly swallowed up the Gulf.

I turned around and faced forward and lit a cigarette. I looked at my instrument board. I looked at my map. The course line on my map lay between two railroads. I looked down at the earth. I was directly over a railroad, flying parallel to it. To my right a little distance ran another railroad, parallel to the one I was flying over. Another railroad lay off to my left. I could not decide which two of the three railroads I should be flying between.

I saw a little town on the railroad under me. I throttled back and nosed down. I circled low over the town and located the railroad station. I dove low past one end of the station and tried to read the name of the town on the station as I flashed past it. I didn't make it out. I opened the throttle to pull up. The engine started to pick up, then sputtered, then picked up all right. I paid no attention to its sputtering. It had done that when I took off from Kelly Field that morning. It had done it when I had circled the field at Corpus Christi on the Gulf. There was a dead spot in the carburetor. The engine was all right. It was airtight above or below that one spot on the throttle. I continued to pull up. I went around and dove low at the station again. Again I failed to read the sign. I opened the throttle to pull up. The engine started to pick up, then sputtered, then picked up beautifully. I went around and dove at the station again. I got it that time. It was Floresville, Tex. I knew where that was. I opened the throttle to pull up. The engine started to pick up, then sputtered, then died. The prop stood still.

I swung my ship to the left. I held it up as much as I dared. I headed toward the open space. I was almost stalling. I barely cleared the last house. I was dropping rapidly. I eased forward on the stick. No response. I eased back. The nose dropped. I was stalled. I was about ten feet above the ground. There was a fence almost under me. Maybe I would clear it.

I heard a loud rending of wood and tearing of fabric. I felt a sensation of being pummeled and beaten. Something hit me in the face. Then I was aware of an immense quietness.

I just sat there in the cockpit. The dust settled slowly in the still air. The hot Texas sun filtered through it. I still held the stick with

my right hand. My left hand was on the throttle. My feet were braced on the rudder bar.

I was on a level with those fences. I stepped over the side of the cockpit onto the ground. I looked at the wreck. The wings and landing gear were a complete Washout. The fuselage wasn't damaged.

I looked into the gasoline tanks. The main tank was empty. The reserve tank was full. I looked into the cockpit at the gas valves. The main tank was turned on. The reserve tank was turned off. I turned the main tank off and turned the reserve tank on.

I phoned Kelly Field from a house near by.

An instructor flew down to get me. He landed his ship and then walked over and looked at my ship. He looked at the gas tanks. He looked in the cockpit at the gas valves. He turned to me. His eyes twinkled.

"What was the matter, wouldn't your reserve tank take?" he asked.

"No, sir, it wouldn't take," I lied.

"That's the first tough luck you've had during the course, isn't it?" he asked.

"Yes," I said. "I have never cracked up before."

He flew me back to Kelly Field.

#### A POOR PROPHET

"What is the weather to New York?" I asked the weather man at the air-mail field at Bellefonte, Pa.

"Clear and unlimited all the way," he told me.

I took off in my low-wing Lockheed Sirius at dark and flew along the lighted beacons through the mountains. Half an hour later I ran into broken clouds at 4,000 feet. I flew under them. Soon they became solid and I couldn't see the stars overhead. I saw lightning ahead of me flashing in the darkness.

Water began to collect on my windshield. The air got very rough. A beacon light that had been flashing up ahead of me disappeared. I noticed the lights of a town beneath me getting dim. For a second I lost sight of them entirely. I nosed down to get out of the clouds.

A brilliant flash of lightning lit the darkness around me. I saw the rain driving in white sheets and caught the flash of a beacon through it. I nosed down toward the beacon and started circling it. I knew by my altimeter that I was down lower than some of the mountain ridges around me. I looked for the next beacon but couldn't see it through the raging thunderstorm. I didn't dare strike out in the general direction of the next beacon in the hope of finding it. I might hit a mountain top.

Another blinding flash of lightning surrounded me with glaring light. I saw the dark bottoms of the clouds and the black top of the next ridge I had to pass over. Then blackness and the slashing rain with only the friendly beacon under me.

I fought my way from beacon to beacon for an hour. The lightning flashes receded farther and farther behind me. I began to see from beacon to beacon. Stars appeared overhead. They were very dim. I was flying in a haze.

I passed over Hadley Field, New Jersey, and saw its boundary lights burning cheerfully. I continued on toward Roosevelt Field. I was almost home now.

I noticed the lights of the towns beneath me getting dimmer. I looked up. The stars were gone. I looked down again. The lights had disappeared! I was flying blind in a thick fog. I began to fly by instruments. I pulled up. At 3,000 feet I saw the stars. I was on top of the fog.

I swung around to go back to Hadley Field. Its lights were covered. I saw the lights of what I figured was New Brunswick. I started circling them. I knew Hadley Field was only a few miles from there. The lights of New Brunswick began to blot out. Hey, what the hell! I said out loud to myself.

I saw a segment of the rotating beam of a beacon break through a hole in the fog and make about a quarter of a turn in the darkness before it disappeared. That's the beam from Hadley beacon! I was saying all my thoughts out loud now. I flew over to where I figured the center of the beam was and started circling. The top of the fog looked pretty bright there. I decided that Hadley had heard me and had turned on its floodlights.

I eased back on my throttle, settled into a spiraling glide, and sank down into the fog, flying by instruments. The opaque white fog got more and more luminous. Individual bright spots, greatly blurred, began to appear. I figured they were the boundary lights of the field. My altimeter read very low. I broke through the bottom of the fog at about two hundred feet. I was over Hadley. I flew low into the blackness back of the field and came around and landed.

"What the hell are you flying in this stuff for?" the Hadley weather man asked me.

"Because I was damned fool enough to take Bellefonte's weather report seriously," I said.

#### TOO MUCH KNOWLEDGE

When I was in Cleveland at the air races a couple of years ago four so-called flyers asked me to fly with them in their Bellanca to the Sky Harbor airport near Chicago. I agreed. We took off after the last race with just enough gas to make the field nicely. We hit a head wind, but I still figured we were okay. I didn't know where the field was, but one of the girls in the plane had been taking instruction at Sky Harbor and the other three claimed that they had lived in Chicago all their lives and knew Sky Harbor as well as their own mother.

When we got to Chicago it was already dark. I followed instructions. We flew north. Someone yelled I should turn east. I turned east. Someone else shouted that was all wrong, we were already too far east. I turned west. The next fifteen minutes were bedlam. " East, north, west, and south,"\_ they yelled. I lost my temper. "\_Do you or do you not know where this field is?"\_ I exploded. "\_There it is!"\_ they chorused. I heaved a sigh of relief and got ready to land. It wasn't the field. I looked at my gas, and my gas was too low. I took matters into my own hands and flew back to the municipal airport and gassed up. We started out again. The situation started to strike me as funny as soon as the tanks were full. I let them have their fun, and eventually they did find the field. I called back to the girl who had been taking instruction and asked if there were any obstructions around the field. "Absolutely not!" she vowed. I looked the field over as carefully as I could. There were no floodlights (they had also told me the field was well lighted). I cut the gun and glided in for a landing. A high-tension post whizzed by my left ear. We had missed the wires by just two inches. And there were no obstructions around the field!

## HIDDEN FAULTS

Nearly every time that a big money race comes along a lot of new planes put in an appearance. Some of them haven't been properly tested (you can get a special license for racing), and none of them are the type you would want to give your grandmother a ride in. But they are all fast, and when you are flying in a race for money you want speed, a lot of it.

I pulled up in front of the hangar late one summer afternoon and saw a brand-new, speedy type cantilever monoplane standing on the line. The wing had large L-shaped gashes in it. The plane belonged to Red Devereaux, who was going to fly it in the National Air Race Derby. As I sat there Red came over. He told me that on the way in from the factory in Wichita a terrific wing flutter set in every time he passed through rough air. The oscillations were so bad that the stick would tear itself from Red's hands. He asked me to try it out and see if it were possible to race the plane.

I put on my parachute and climbed in. As I warmed the motor up I decided to have the door taken off the ship. Easier to get out that way. I put the ship in a shallow climb and held it to six thousand feet. Feeling it out, I dived, banked, rolled, looped, and spun it. It seemed to be fine. I landed and told Red that everything was okay.

The next day diving over the Boston airport, in the lead, the wing broke off. The plane plunged into the marsh, killing Red and his bride of a few months.

### "DEATH TAKES A HOLIDAY"

A friend of mine knew a doctor who had an old skeleton. The skeleton wasn't of any use to the doctor. It had been hanging in a closet for almost a year. I decided to have some fun with it. I wired the head and jaws with fine wire. I attached two strings to the wire in such a way that by pulling one I could make the skeleton's head turn left or right. When I pulled the other the jaws clacked up and down. I tied the skeleton in one of the dual-control seats of a cabin Travelair. I flew the ship from the other seat. By bending way down nobody from the outside could see me. It looked as though the skeleton were doing the flying. Jim Drummond, flying mechanic, lay on the floor of the plane and took charge of the skeleton's behavior.

I knew that Eric Wood and Pete Brooks were flying formation over Floyd Bennett Field that day. They had just joined the army reserve corps and were all steamed up trying to make a success out of it. I decided they would be my first victims of the day. We had no trouble finding the formation. There was Pete just behind the leader, looking very conscientious and pleased with himself. He was doing everything just right. I eased up beside him. He didn't notice me for a second. When he glanced around I gave Jim the signal. The skeleton looked right in his face and jabbered. Horror and amazement flooded Pete's face. He turned back to the formation—he had to unless he wanted to bump into the other planes. But he couldn't stand it for long. He had to look again. Jabber, jabber, went the skeleton. This went on a third and a fourth time, till I finally felt sorry for Pete. He was getting walleyed, one eye on the formation, the other on the skeleton. I gave him one final superb jabber, dipped my wings, and went in search of other game.

#### **CONFESSION**

Jimmie Doolittle has demonstrated American airplanes all over the world. He landed on one of his tours at Bandoeng, Java, headquarters of the Dutch East Indian Air Corps. They had some American, Conqueror-powered, Curtiss Hawks there. They asked Jimmie to take one of them up and put on a show for them.

After turning the ship inside out for the better part of an hour, Jimmie really got into the spirit of the thing. He decided to dive straight down from about 6,000 feet and conclude the show by showing them how close he could come to the ground, pulling out of the dive.

He turned over and started down. Straight down, closer and closer to the ground, wide open, he roared. He yanked back on the stick to just clear the ground and discovered there were several little considerations he had overlooked. One was that he had just stepped out f a Cyclone-powered Hawk, much lighter than the Conqueror-powered one he was desperately trying to clear the airport in at that moment. The other was that he was accustomed to flying the lighter ship out of a sea-level airport, much heavier-aired than the 2,500-foot-high airport that he was at that moment trying to avoid. The heavier ship squashed in the thinner air and hit the ground in the pull-out. Just kissed it and skimmed into the air again.

Jimmie wondered if his landing gear had been swiped off, came around, landed, and discovered that it hadn't.

The Dutch officers rushed out to him when he crawled out of his cockpit. "My God, Jimmie," they chorused, slapping him on the back, "that was the most delicate piece of flying we have ever seen!"

"Huh," Jimmie grunted, still thinking how lucky he had been to get away with it, "delicate piece of flying, hell! That was the dumbest piece of flying I ever did in my life!"

They knew it too, of course, despite the polite way they had put it. So from then on Jimmie was ace-high with them, because he had admitted the boner instead of trying to lie out of it.

#### GONE ARE THE DAYS

George Weiss, one of the boys that kick the Daily News photographic ship around into position for the aërial photographs that appear in New York's picture paper, told me this funny one he experienced with the late Commander Rogers of the navy:

Commander Rogers had flown way back in the early days of Wright pushers. He saw George in Washington several years ago and asked him if he could fly him up to his home at Havre de Grace, Md. He assured George that there was a field there right beside his house that they could land in. He said that he had landed in it himself.

George took him up in his Travelair cabin ship. He arrived over the Commander's house and the Commander pointed out the field. "It's full of cows," George objected. "That's all right," the Commander told him, "just buzz the field a couple of times and somebody will come out and chase the cows away."

George did, and sure enough somebody came out and chased the cows off the field.

"I still can't land there," George remonstrated. "The field is too small."

"Sure you can," the Commander assured him; "I've done it."

George circled the field again. He said it looked like a good-sized pocket handkerchief to him and was surrounded by tall trees.

"Are you sure you've landed there?" George insisted.

"Sure, I have," the Commander reassured him. "Go ahead, you can get in it."

George thought to himself that if the Commander had got in there, by golly, he could too. He said he finally squashed down over the trees, falling more than gliding, and dropped into the field with a smack that should have cracked the ship up but didn't. He stopped fifty feet from the row of trees by standing on his brakes and cutting the switches. He said he didn't know how the hell he was going to get out of the place without dismantling the ship.

That night, in the Commander's house, over a drink, George asked him, "Come, now, Commander, tell me the truth. Did you really land in that field?"

"Certainly I did," the Commander said. "It was back in 1912, and I was flying a Wright pusher." George sneezed into his drink. The Wright pushers land so slow they can be flown off a dining-room table.

"And do you remember those trees around the field?" the Commander asked. George remembered. "Well, they were only bushes in 1912."

### "LOOK WHO TAUGHT HER"

I was trying to teach my wife to fly. I thought every flyer's wife should know something about flying. It would be so convenient on cross-country trips if Dee could spell me off on the controls. I was having very little success. In the first place, Dee's eyes weren't good, which is a decided disadvantage, and in the second place she just couldn't seem to catch on. She had no coördination. I sweated and struggled and cursed. "Don't skid on the turns," I moaned. "The rudder and the stick must be used together. If you put the stick to the right, push the right rudder. If you put the stick to the left rudder." And the ship would grind around on another skid.

Dee didn't take her flying as seriously as I did. She didn't particularly want to learn to fly except to please me. I thought if I could instill in her a sense of shame at her lack of coördination maybe she would improve. I picked a day when she was more than usually bad. The plane had been in every conceivable position but the right one. She had skidded and slipped and wobbled all over the sky. My temper was getting the best of me.

"Dee," I said, "haven't you any pride about learning how to fly? Other women learn how. Look at all the girls who fly, and fly damn well. Look at Anne Lindbergh, for instance. She has been doing a wonderful job on that Bird plane. She solos all over the place, and she only took it up a little while ago."

Dee looked at me a minute and said, "Well, look who taught her."

I gave up teaching my wife how to fly.

#### A FAULTY RESCUE

Eddie Burgin, one of the oldest pilots on Roosevelt Field, tells me this one about how they used the last remaining outdoor "outbuilding" on Roosevelt Field as a homing device to lead a troubled pilot down into the airport.

Russ Simpson, American flying instructor in the Gosport School in England during the war and at present an airplane broker on Roosevelt Field, took off in one of the old Jennies to fly the first electric sign ever flown over New York City at night. While he was gone a ground fog rolled in over the airport.

Pretty soon the fellows on the ground heard him coming back. They could hear his motor, but they couldn't see his ship. They knew he couldn't see the airport. He was stuck on top of the fog.

They decided to help him. They got cans of gasoline and poured them on the old outbuilding which stood a little way out from the hangars and set fire to the rickety structure. They tore up all the spare motor crates they could find and piled them on top of the blaze. They got the fire so big they were afraid for a while that the hangars were going to catch. They were trying to make a red glow in the fog so Russ could tell where the field was.

Finally they heard Russ's motor cut. They heard the ship glide in and heard it hit. They could tell from the noise it made when it hit that it had cracked up.

They jumped into a car and went rushing all over the airport in the darkness and the fog looking for the wreck. It took them half an hour to find it, so Eddie says.

When they did, they found Russ sitting on top of it, smoking a cigarette. Their almost burning the hangars down had all been in vain. Russ hadn't seen any red glow at all. He had simply mushed down through the stuff and hit the airport by luck.

#### HELPING THE ARMY

After I was graduated from Brooks and Kelly, the army transferred me to Selfridge Field in Detroit. There was nothing much doing around Selfridge, and I was getting a little bored. I heard they were giving an air show at Akron, right near my home town. I thought it would be fun to go out there to see my old friends and give a stunt exhibition. I got the necessary permission from the higher-ups and started out in a Tommy Morse. The Morse planes were pretty near obsolete by that time, and the service was trying to replace them as fast as possible with newer models. There were only a few of them left.

When I got to Akron there was a lot of excitement going on over the air show. I told myself I was going to give them the works—show them what a local boy could do. The first part of my program went off fine. I looped, barrel-rolled, dove, etc. I had figured out a trick landing as the grand finale that would pull the customers right out of their seats. The landing didn't turn out so well. I misjudged my distance and ended up on one wing. It was pretty humiliating. There was nothing to do but wire Selfridge Field to ship me another wing. They wired back to the effect that there were no more wings available at the moment and that I should crate the ship home. That stumped me. I had no idea how to dismantle a plane. I studied the old Morse from every angle, but I couldn't find the solution. I had to get the plane in a crate, and I had to do it quickly. I used a saw. I sawed off the good wing, the damaged wing, and the tail surfaces. I crammed them into a crate and sent them on their way. The plane of course had to be junked.

I had helped the army to get rid of one more Tommy Morse.

#### **APOLOGY**

I was sitting alone in a movie not long ago. The newsreel came on. Jimmie Doolittle's capable but impish face flashed upon the screen. Behind him was the fast, low-wing, all-metal Vultee plane in which he had just failed to better by more than a few minutes the Los Angeles—New York record for transport planes.

"I'm sorry I didn't make faster time," his picture spoke. "I didn't do justice to the ship I flew. I wandered off my course during the night and hit the coast 200 miles south of where I should have hit it. It was just another piece of bum piloting."

I saw Jimmie in Buffalo not long after that.

"What was the matter, Jimmie?" I asked him, referring to the flight he had spoken about in the newsreel. "Were you on top of the stuff for a long time?" I continued, generously implying that of course he had had enough bad weather to force him to fly on top of the clouds and out of sight of land for so much of the trip that naturally he got off his course.

"No," he explained, "I wasn't on top. I was in it for ten and a half hours. I couldn't get on top because I picked up ice above sixteen thousand feet. I couldn't go under for several reasons. I had high mountains to clear. I would have made even slower time and run out of gas before I got to New York if I had flown low, because my supercharged engine required 15,000 feet to develop its full power and its most efficient gas consumption. So I had to fly in it. Also I got mixed up on some radio beams. Some of them are stronger than others. I figured the strongest ones the closest, which wasn't always true. I learned a lot on that trip. I think I could hit it on the nose the next time."

He was talking shop to a fellow professional. I could immediately see that 200 miles off under the conditions he had had to contend with had not been bad at all. I wouldn't have blamed him if he had explained to the public a little more than he did. But when he said to them, without the shadow of an alibi, "It was just another piece of bum piloting," I thought it was pretty swell.

#### I AM DEAD

This is the testament of Jimmy Collins, the test pilot.

It is, as he himself phrased it, "The word of my life and my death. The dream word that breathed into my nostrils the breath of life and destroyed me too."

The body of Jimmy Collins was found on Friday in Pinelawn Cemetery, near Farmingdale, L. I., beneath the wreckage of the Grumman ship he had tested for the navy. That body was broken, mangled, twisted, in a 10,000-foot crash

His testament, the utterance of a poet who flew, first in search of beauty, then in search of bread, is bravely, lyrically alive, straight and whole, as was the spirit of the man who wrote it.

He wrote it—laughingly, he said; grimly, we believe—nine months ago. This is how it happened:

In October Collins went to Buffalo to test a new Curtiss bomber-fighter for the navy. Before he left he took dinner with his old friend Archer Winsten, who conducts the In the Wake of the News column for the Post. Winsten wrote a column about Collins and his spectacular job, begged the flyer to do a guest column for him on his return, telling of the Buffalo feat.

What happened after that is best told in Collins's own words.

He wrote to his sister, out West: "I got to thinking it over and thought maybe I wouldn't come back because it was a dangerous job, and

then poor Archer would be out of a column.... So I playfully wrote one for him in case I did get bumped off. Thoughtful of me, don't you think?... I never got bumped off. Too bad, too, because it would have been a scoop for Arch...."

Last Friday's job was to have been Jimmy's last as a test pilot. He took it because he needed the money, for his wife and children. Soon he was to have started on a writer's career.

Jimmy's writing career ends today with his testament. He prefaced it with the following:

"The next words you read will be those of James H. Collins, and not 'as told to,' although you might say ghost-written."

#### I AM DEAD.

How can I say that?

Do you remember an old, old story? I shall tell you just the beginning

of it: "In the beginning was the word, and the word was God...." That's enough for you to see what I mean.

It is by the word that I can say that.

Not by the spoken word. I cannot say to you by the spoken word, "I am dead."

But there is not only the spoken word. There is also the written word. It has different dimensions in space and time.

It is by the written word that I can say to you, "I am dead."

But there is not only the spoken and the written word. There is also the formless, unbreathed word of mood and dream and passion. This is the word that must have been the spirit of God that brooded over the face of the deep in the beginning. It is the word of life and death.

It was the word of my life and my death. The dream word that breathed into my nostrils the breath of life and destroyed me too.

Dreams. And life. And death.

I had a dream. Always I had a dream. I cannot tell you what that dream was. I can only tell you that flying was one of its symbols. Even when I was very young that was true. Even as long as I can remember.

When I became older, it became even more true.

So deep a dream, so great a passion, could not be denied.

Finally I did fly.

"Remember now thy Creator in the days of thy youth, when the evil days drew not nigh...." Part of the same old story.

I remembered the dream of the days of the youth of my flying, that burst of glory, and how the world and my shining youth itself shone with the radiance of it.

It was my creator. It created life for me, for man shall not live by bread alone. Man cannot. Only his dreams and his vision sustain him.

But the evil days drew nigh. The glow died down, and the colors of the earth showed up. Ambition, money. Love and cares and worry. Curious how strong the strength of weakness is, in women and their children, when you can see your own deep dreams, unworded, shining in their eyes. I grew older too, and troublous times beset the world.

Finally there came a time when I would rather eat than fly, and money was a precious thing.

Yes, money was a precious thing, and they offered me money, and there was still a small glow of the deep, strong dream.

The ship was beautiful. Its silver wings glistened in the sun. Its motor was a strong song that lifted it to high heights.

And then...

Down.

Down out of the blue heights we hurtled. Straight down. Faster. Faster and faster. Testing our strength by diving.

Fear?

Yes, I had grown older. But grim fear now. The fear of daring and courage. But tempered too with some of the strong power of the old dream now too.

Down.

Down.

A roar of flashing steel and a streak of glinting ... oh yes, oh yes, now ... breaking wings. Too frail ... the wings ... the dream ... the evil days.

The cold but vibrant fuselage was the last thing to feel my warm and living flesh. The long loud diving roar of the motor, rising to the awful crashing crescendo of its impact with the earth, was my death song.

I am dead now.

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