

**JUNE
1938**

**VOLUME 12
NUMBER 3**

AMAZING STORIES

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William B. Ziff, Publisher, B. G. Davis, Editor
Managing Editor, Raymond A. Palmer
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Associate Editor, A. F. Meier, POPULAR PHOTOGRAPHY, John B. Rathbun, POPULAR AVIATION, Karl A. Kopetzky RADIO NEWS, Leonard A. Rosenblatt

PUBLISHED BI-MONTHLY BY
ZIFF-DAVIS PUBLISHING COMPANY
at 608 So. Dearborn St.
Chicago, Illinois

New York Office, 381 Fourth Avenue
New York City

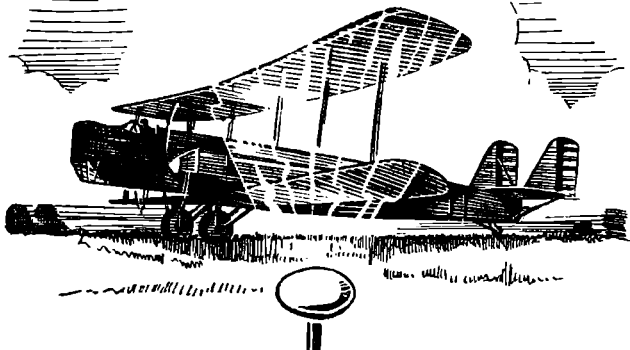
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SUBSCRIPTION RATES: \$1.20 per year (6 issues), foreign \$1.45, single copies 20 cents. Entry as Second-class matter, postpaid for at the Post Office, Chicago, Ill., under the act of March 3, 1879.

By LIEUT. JOHN PEASE

The Invisible Bomber



A mysterious bomber suddenly wrecks havoc on a Government proving ground. Secure in his secret, Phil Winter delivers an ultimatum to the President of the United States.

"BUT, Colonel, wasn't it fortunate that we had all knocked off for lunch just before that bomb landed on our howitzer?"

"Yes! Yes!" the Commandant testily replied, scowling sternly at the young officer who stood writhing at attention at the other side of the Commandant's desk. "But the fact remains, Captain Melton, that you've just muffed a perfectly good chance to pin something onto Phillips Flying Field. Here I've been warning them again and again not to let their bombers fly over the water-range on the way back from the panels.*

And now that they've finally gone and dropped a bomb on the most valuable experimental gun in the whole of

Aberdeen Proving Ground [Aberdeen, Md.], you stand there like a ninny, and admit that neither you nor any of your gun-crew remembers seeing the plane that did it."

"But there *must* have been a plane, Sir!" Melton interposed.

"Of course there must have been a plane. But what kind of a plane? I can't very well call up the Flight Commander and say: 'Something blew up one of the howitzers at my water-range, and it must have been one of your

**Water-range:* The emplacement from which test guns are fired into the waters of Chesapeake Bay. *Panels:* Screens of lath and cheese-cloth, each about the size of a man, set up in a circle, into the midst of which a bomb is dropped to determine how many panels it can smash, thereby denoting its wartime effectiveness.—Ed.

planes.' I've got to be able to say: 'One of your Bellanca's' or 'One of your Curtis Bombers did it.'"

"But I've brought you some of the bomb-fragments which we picked up around the crater, Sir." He pointed to a basketful of bits of metal. "One of the fins is intact. Why not check it against some of the blueprints upstairs."

"I get the idea," said the Commandant, smiling for the first time.

The measurements indicated that the fin was probably from a 100-pound Mark IV bomb. A peremptory phone-call to the Flying Field developed the fact that a Lieutenant Sanders had been dropping 100-pound bombs at the panels that morning, and had flown back just before lunch.

Sanders *claimed* to have emptied all of his racks at the panels, and to have carefully avoided the water-range on his return flight; but the Commandant grimly remarked to Captain Melton, "I wouldn't take an Air Corps man's word under oath. Undoubtedly he dropped the bomb accidentally as he was flying over your battery, and probably it had a defective fuse which delayed the burst until after he'd flown on out of sight. That would account for the fact that none of your men saw any plane at the time of the explosion."

THAT evening, as Captain Melton was sitting reading in his room in the Bachelors' Building, there came a knock on the door. The door opened and there entered a young man of about Melton's age, with a distinctly military air in spite of his civilian clothes.

"Cadet Phil Winters, by all that's holy!" Captain Melton exclaimed, jumping up and warmly clasping his friend's hand. "I haven't seen you since you inherited all that money in

your senior year, and resigned from the Point. It was a shame, too! You stood at the head of our class, and would have gone a long way in the Army. What have you been doing ever since?"

"Physics research and aviation," Winters succinctly replied. "For example, this noon I flew over your battery, and dropped a 100-pound bomb on it."

Melton gasped. Then sputtered. "You dirty pup!"

Unperturbed, the civilian continued, "You didn't see my plane, did you?"

"Er—no."

"Of course you didn't," laughed Winters. "You couldn't. It was invisible."

"But, but . . .?"

"Because I have an invention which will make America invisible—I mean, invincible. I *had* to do something sensational to attract the attention of the authorities!"

"But why pick on us?"

"Because, old fellow, I happen to know that you have a drag with the Secretary of War. Friend of your uncle's, Colonel Hatch, wasn't he? Phone him right now. Tell him about the bombing. But not about me, yet. Hint that there's something of international significance to it. Guardedly, mention the Japs. Suggest that he put a hush order on your Commandant, and that he direct you to proceed to Washington at once, *with* the bomb fragments, for a hearing before a special board of inquiry."

"But what is your invention? I can't very well phone the Secretary of War unless—"

"You'll say nothing about my invention until we reach Washington, and then it'll be I who'll do the talking!"

After considerable argument, Captain Melton finally gave in, called the Washington residence of the Secretary

of War, and made the suggested arrangements. Ex Cadet Winters spent the night in a spare room in the Bachelors' Building, and the two friends took the early train the next morning.

The Secretary warmly greeted his protege, and accepted Winters as a friend and classmate of Melton's; but became frankly worried and annoyed at Winters' ingenuous admission of having bombed and destroyed valuable government property. However, his indignation changed to interest when Winters insisted, and Captain Melton corroborated, that the bombing plane had been absolutely soundless and invisible. He became annoyed again when Winters flatly refused to reveal his secret to anyone but the President of the United States.

The Secretary of War argued, but the inventor remained obdurate. Finally the Secretary gave in, and arranged an immediate conference at the White House.

As they left the State-War-and-Navy Building, Captain Melton admiringly whispered to his friend, "Well, you certainly are working your way up in the world!"

THE President received them in the Blue Room. Captain Melton opened the conference by giving a vivid account of the sudden destruction of his howitzer at Aberdeen the day before, the narrow escape of himself and his gun-crew, the total absence of any plane, and Winters' confession—or rather boast—that he had been responsible.

The President's kindly face clouded, as he ran his eyes up and down the inventor. "Young man," he sternly declared, "this is very serious."

There was a glint in Winters' eye, as he replied, "Mr. President, it has put

me in touch with you inside of twenty-four hours; no lives have been lost; and the property damage is trifling, compared to the value which my discovery will be to America. For I have discovered that the universe is *laminated!*"

The President and the Secretary of War exchanged hurried glances.

Winters stiffened with annoyance, as he continued, "Did you ever read 'Flatland', Mr. President? It's a fanciful yarn about a two-dimensional state of existence, with no up and down; only north and south, east and west."

The President nodded and smiled a slightly puzzled smile. Yes, he had read the book, but what did that—?

Winters continued, "Suppose there were another flatland a few millimeters away from the first. The inhabitants of either would never even guess at the existence of the other. There could exist an infinite number of these flatlands, piled one on top of another, like sheets of paper or strata of rock structure. You could even move the whole pile steadily upward at the same rate of speed; and yet, in spite of the fact that each two dimensional space would successively occupy the position formerly occupied by some other two-space, this would not at all mean that the peoples of any one plane of existence would ever experience any plane of existence other than their own."

"I think I follow you," the President interjected in a rather doubtful tone of voice. "But just what has this to do with bombing an 8-inch howitzer at Aberdeen Proving Ground?"

"I'm getting to that. We human beings live in a *three* dimensional space, of which time has sometimes been called the fourth dimension. But did it ever occur to you, Mr. President, that we do not *extend* in time. We never experience any other time than the present.

Our so-called space-time existence is thus seen to be a mere three-dimensional layer, or lamina infinitely thin in the time direction. There could exist another three-dimensional space, just a second or two away from ours, and we would never know it."

"But don't we move through time?" the President objected, warming to the subject; and now it was Captain Melton and the Secretary of War who interchanged eyebrow-lifting glances.

"Yes, Sir," Winters replied. "But the fact that our space is moving in time, doesn't ever put any of us into any other space which may be moving along just ahead of us."

"But what has that to do with bombs?" The Secretary of War somewhat testily interjected.

"If a flatlander could elevate himself ever so slightly above his two-dimensional lamina of existence," Winters explained, "he would be out in an absolute void, occupying no space whatever, as he knows space. He would be invisible to his former world, and it to him. Similarly if one of us could shove himself ever so slightly forward in time beyond our three-dimensional level of existence, he would be out of space entirely, in a visionless void. I know. I have been there!"

He paused dramatically.

"What!" exclaimed the three others.

"It takes tremendous electrical power, but it *can* be done. After years of experimentation I finally accomplished it about six months ago in my laboratory just across the District line in Kensington. First I tried it with small objects. They disappeared. But several hours after the electric field had been shut off, they reappeared. Then I risked myself within the apparatus. Gentlemen, I cannot begin to describe the sensation of being absolutely no-

where, in darkness as intense as the blackened inside of a hollow sphere. But I too eventually reappeared."

"How do you account for these reappearances?" asked the President.

"It's like pushing the lever of a controller just beyond a notch. The tendency is to slip back into the notch."

"And if you were to push it beyond the mid point between two notches?" the President hazarded, a quizzically intense look on his broad features.

Winters smiled. "I see that you are getting the idea, Sir. It would probably slide forward into the next notch. Experimenting with small objects in my electric field, I have found that, after an excess of current, they do *not* return. Undoubtedly there is another state of existence just ahead of ours in time, and that is where they have gone. Some day I plan to ship myself all the way forward to that state of existence, taking with me enough electrical equipment to insure my return; but in the meantime I am being very careful to limit my current."

"Where do you buy your current?" the President inquired.

"From the Potomac Electric Power Co. Why?"

"Oh, nothing, nothing. Go on."

"Early this spring I enlarged my apparatus so that it would hold an airplane. I devised a reverse-field capable of picking up light waves from the immediate past—thus I can see the present world when I am out in the void of time which lies just barely ahead of us. And I enclosed the bomb-rack of my airplane in a reverse field, so that I can loose the bomb into the present world. Thus equipped I can fly around unseen and unheard in the void of time, and yet see and destroy objects in the present world. That, Gentlemen, is how I bombed Captain Melton's howitzer."

The Secretary of War and the President stared grimly at each other.

"With that invention," the Secretary solemnly declared, "America would be safe against foreign attack."

But the President sadly shook his head, and a tired look passed across his kindly face. "With that invention," he declared, "this cockeyed world would be utterly *unsafe* for any nation. One of my dearest ambitions is to keep the world at peace."

"But Winters is giving it to *America!*" Captain Melton interposed.

"Not *giving* it—*selling* it," Winters corrected. "And yet my price is a very reasonable one: One million dollars cash, and the deposit of a million more in government bonds, the interest on which is to constitute my salary as chief consulting expert of the new Air Service which you will develop."

"Pretty steep terms," suggested the President, his eyes narrowing. "What if we reject them?"

"Then, much as I regret it, I shall have to peddle my invention abroad."

"I was afraid of that," the President dryly remarked, an inscrutable smile playing about his firm lips.

The Secretary of War laughed harshly. "But, of course, gentlemen, this is all absurd. Why are we wasting the President's valuable time with all this talk of cobwebs and moonbeams. No one could do what this young fellow says he has done."

"He bombed my battery without any visible plane!" Captain Melton interjected.

"Yes," the President asserted thoughtfully. Then smiling a friendly smile, he turned to Winters with, "Young man, it's a deal. I will assume the responsibility of signing a contract with you on behalf of the United States. There are contingent funds available

for unemployment relief, which we can divert to this purpose. I will give you a check for \$100,000 down to bind the bargain, the contract to be conditional on a demonstration of your plane to the satisfaction of the Secretary of War and myself." He held out his hand, and clasped the hand of the inventor across the table. But there was a sad distant look in his kind eyes. "Does anyone else know of your invention?"

"No one else than I know its *details*," affirmed Winters positively. "You three gentlemen are the only others who even know of its *existence*."

"But how can we hush up the investigation at Aberdeen?" Captain Melton interposed.

The Secretary of War grinned. "There is on my desk a request from a Lieutenant Sanders of Air Service that I overrule General Westover in his refusal to transfer Mr. Sanders to Honolulu. You have my permission to tip off Mr. Sanders confidentially that, if he will admit dropping the bomb, it will not be held against his record, and I will approve his transfer."

"Excellent!" exclaimed the President, rubbing his hands. He then took a small portable typewriter out of a drawer and placed it on the desk, with the explanation: "This is what I use to type personally my messages to Congress, when I wish to make certain that there shall be no leak. There will be no leak in *this* case, Gentlemen."

So the contract between Philip Winters and the United States of America was typed and executed. An appointment was made for a meeting at Winters' hangar, located a mile from the Aberdeen Proving Grounds, a week later. The check for \$100,000.00 was requisitioned, and the President promised to bring the check with him to Aberdeen.

A week later the four men met at Philip Winters' hangar as arranged. The President, accompanied by the Secretary of War and Captain Melton, entered the hangar. The Secret Service guards remained outside. The President delivered the check to Winters, who took his copy of the contract out of an inside pocket, placed the check in it, and returned the contract to the pocket. The President keenly noted this move, and nodded appraisingly to himself.

Then the inventor pointed to a large airplane, surrounded by a maze of electric wires, mercury-vapor lamps, huge lenses, and shining condenser-plates. Hung beneath the fuselage was a 100-pound bomb, surrounded by a miniature of this same electrical apparatus. A periscope on the plane was similarly shrouded. On the wall of the hangar was a switchboard.

The President glanced at his watch, cleared his throat, and said, "Mr. Winters, one of the terms of our contract is that you will make your take-off and drop your bomb at times to be set by me, so as to avoid any trickery by confederates of yours. You will please set that control-clock and your watch by mine."

Winters did so.

The President continued, "It is now five minutes before three. Can you take off exactly at five minutes past?" Winters nodded. "Then do so. Just before you take off I will give you your instructions as to when and where to drop the bomb."

Winters set a dial beside the control-clock, closed a leaf-switch, swung open the doors of the hangar, spun the propeller, and clambered into the cockpit. Throttling down the motor to a purr, he leaned out over the side, and shouted, "All ready, Mr. President.

What are your wishes about the bomb?"

"Fly one mile straight east, just within the confines of the Aberdeen Proving Grounds and release it there. Not later than three fifteen o'clock."

"Right, Sir." Winters glanced at his wrist watch, and waved his three visitors back away from the plane. Then fixed his eye on the clock on the wall.

As the hands reached 3:05, there came a click, followed by a blinding sizzling flash. Motor-generators hummed, sparks zipped, the mercury lamps glowed, and a dense black fog formed within the maze of wires, completely obscuring the plane. Even the sound of its motors died to nothingness.

Then there came another click. The snapping ceased, the motor generators slowed to a stop, and the mercury lamps paled. The black fog gradually cleared, disclosing an empty maze of wires where the airplane had stood.

The President's shoulders were slumped, and he seemed very tired, as he stalked out of the hangar and toward his car.

"Aren't you going to wait for the explosion?" asked the Secretary of War in surprise.

"There will be no explosion," the President listlessly replied.

"What do you mean?"

"You shall see." He leaned heavily against the side of his car, and waited.

Three fifteen; no explosion. Three twenty; no explosion. Three twenty-five; no explosion. Three-thirty; no explosion.

"Well," said the President, "let's go home."

"What *could* have happened to Phil?" Captain Melton exclaimed.

The President transfixed the young officer with a steady gaze. "He *could* have passed over the hump to the next

notch—to the next three-dimensional space just ahead of ours in time. If so, then the menace of his invention to the peace of the world is at an end. And, as he has his contract and his check with him, the Government will never have to fulfill the contract, the check will never have to be paid, and we three can forget the entire episode.”

“But, Sir, couldn't Phil substitute himself for the bomb, and use its electric field to send himself back into our time.”

“I thought of that too, but I doubt if the engines of his airplane would produce sufficient power for such a long time-trip as he would *now* find neces-

sary. Besides I took particular note of the coils which surround his bomb; they are not large enough to hold a man.”

“But how could Phil have pushed himself so irretrievably far forward in time? He took great precautions never to use too much electric power.”

“And I,” said the President with an air of finality, “took great precautions to send for the head of the Potomac Electric Power Company, and give him strict instructions to quadruple the voltage on Mr. Winters' line, from five minutes past three o'clock until twenty minutes past three this afternoon!—We planned it that way,” he added, with a ghost of a smile.

LIEUT. JOHN PEASE
 The Invisible Bomber
 (Page 130)

Author o

LIEUT. JOHN PEASE, the author of "The Invisible Bomber," is an Artillery officer of the United States Army, assigned to the Technical Staff. He was formerly on the Editorial Board of "The Journal of the U. S. Artillery," and did some very valuable experimental work at Aberdeen Proving Ground (where his story is located) in astronomy, ballistics, and the detection of airplanes invisible because of fog.

He is a descendant of that Lieut. John Pease, who was one of the four original settlers of Martha's Vineyard Island, off Cape Cod, Massachusetts, in 1642.

The plot of his story was suggested to him by a narrow escape which he had when a flyer from Phillips Field dropped a 400-pound bomb on his battery, scarcely a minute after he had knocked off for lunch.

His literary efforts thus far have consisted in gangster stories, with a slight science fiction touch.

On his theory that the universe is laminated, he writes us: "One thing which the relativists seem to me to overlook, when they talk about the four-dimensional space-time continuum, is that we never experience any time except the present. Therefore may not our space, after all, be Euclidean and three dimensional, infinitely thin in the time direction, a lamina as it were, moving through time?"

"This theory would render Euclid's conception of space perfectly consistent with Relativity's conception of the space-time continuum: $ds^2 = dx^2 + dy^2 + dz^2 - dt^2$.

"Unless existence is infinitesimally thin in the time direction, as I postulate it to be (i.e., unless $dt = 0$), then for any motionless object, ds becomes imaginary. This indicates the truth of my theory.

"A popular explanation of my theory is put into the mouth of my character Philip Winters, upon the specific request to do so by the editors of AMAZING STORIES."