

Spain's Aerial Proving Ground

War Provides Test for New Type of Fighters

By WAYNE THOMIS

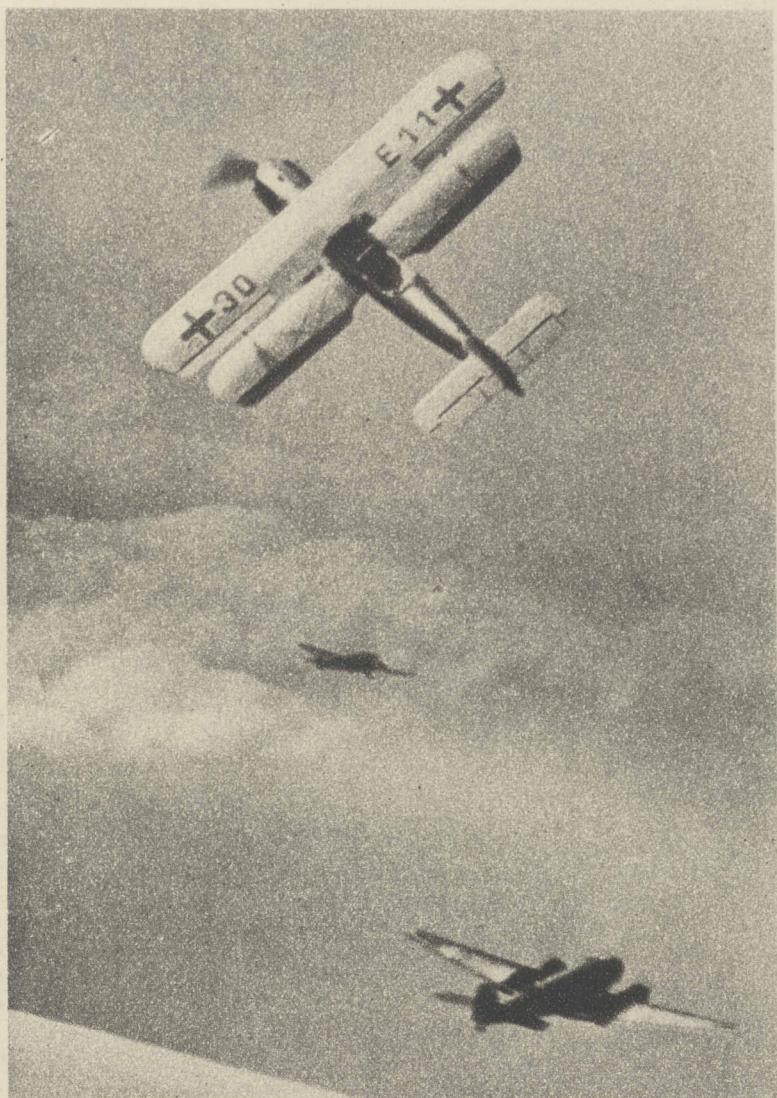
THIS department today is devoted to photographs and information from the miniature world war in Spain. All the machines shown here are German or Italian and are in use by Gen. Francisco Franco's pilots. Censorship on the loyalist side of the lines is strict and thus far no authentic photographs of the new Russian machines—said to be among the best—have become available.

The information—sketchy, perhaps inaccurate, since there is no way to verify it—follows: Virtually all the air fighting is done on a formation basis. The day of the individual dog fight is past. Tactics consist chiefly of a dive and zoom away. Stragglers who are unable to keep their places in the formations usually are the casualties. Maneuverability, always hitherto considered a prime essential of pursuit machines, is giving away to fire power and speed as more important characteristics. Modern high-speed bombers, defended from every angle, can take on

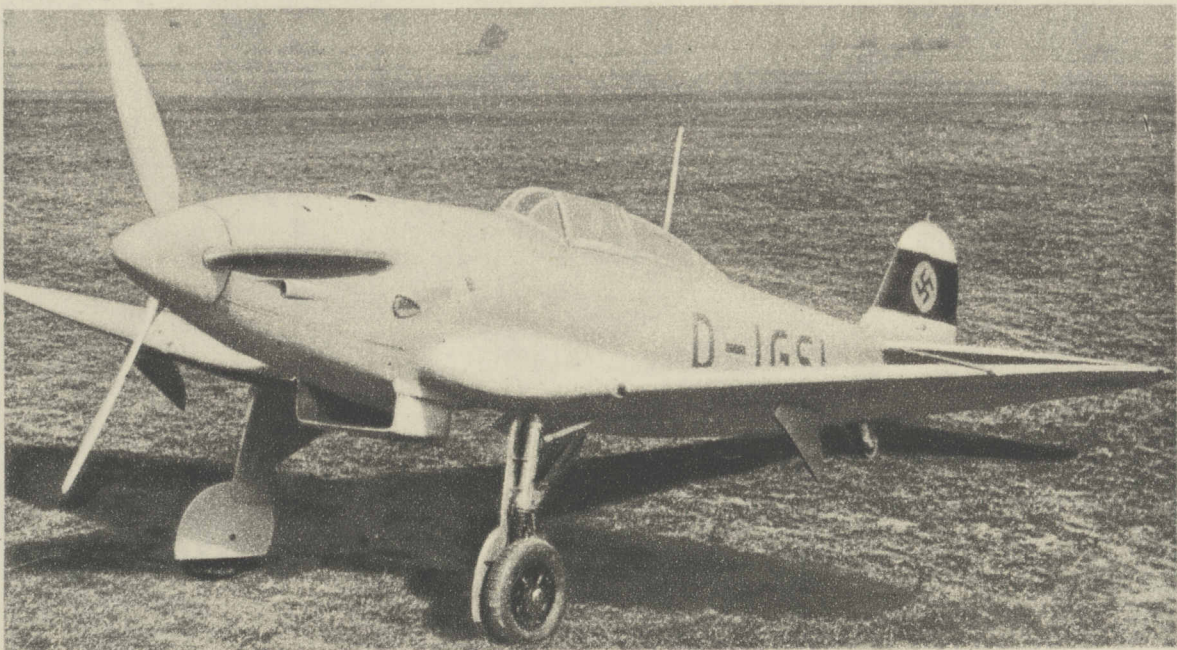
two single-seat fighters and beat them. It takes a concerted attack by four or five machines to drop such a bomber.

Modern high-speed machine guns fire so fast—1,200 rounds a minute—that the individual explosions are lost. Their fire sounds like the tearing of cloth. World war guns sounded something like a pneumatic rivet hammer, but they were firing about 600 r.p.m. All the new fighters carry at least four of the modern guns. The weapons are chiefly of Norwegian or Czechoslovakian origin. The Skoda plant of the latter country is responsible for one of the best of the guns. Pilots say they virtually never have jams or stoppages—an extraordinary statement to any one who knows automatic arms.

Most of the engines used in bombers and fighters are British or American in origin, although many of them have been built under license. The Germans use a great many Hornet engines of 750 h.p. The Russians use Wright Cyclones of 800 h.p. almost exclusively in their ships. The Italian planes use British Bristol engines, Mercury or Pegasus designs prevailing. The German machines are capable of speeds of 250 m.p.h. or more, while the Italians are generally

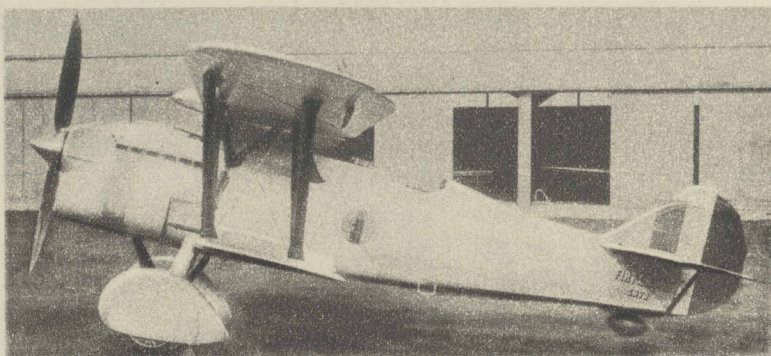


German planes in war maneuvers. The biplane at the top is a two-seater Arado fighter. Below are two Dornier twin-engine bombers. The Arado apparently is pulling up in a climbing turn after diving on the nearer bomber. (Associated Press photo.)

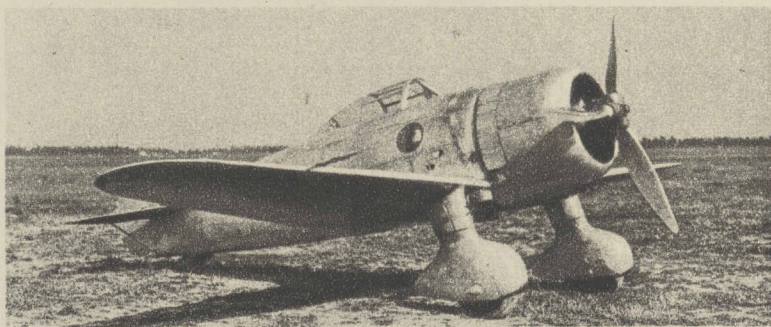


(Associated Press photo.)

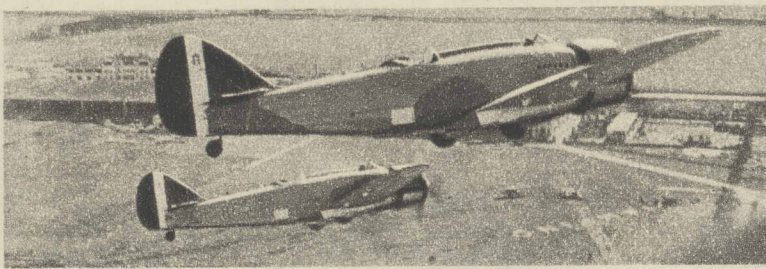
Above: Heinkel single-seat fighter, one of the fastest military planes in the world. It carries two cannon, two machine guns, and six bombs, at a speed of approximately 270 miles an hour.



At left: Italian biplane pursuit ship—Fiat C.R.32. Its top speed is only 211 miles an hour at 16,500 feet, but it is extremely maneuverable.



At left: Newer type Italian machine, Breda 64, also a fighter.



Below: The Breda 64 light bomber and attack planes.

CHAIN STORE SHOPPERS

By W. E. Hill

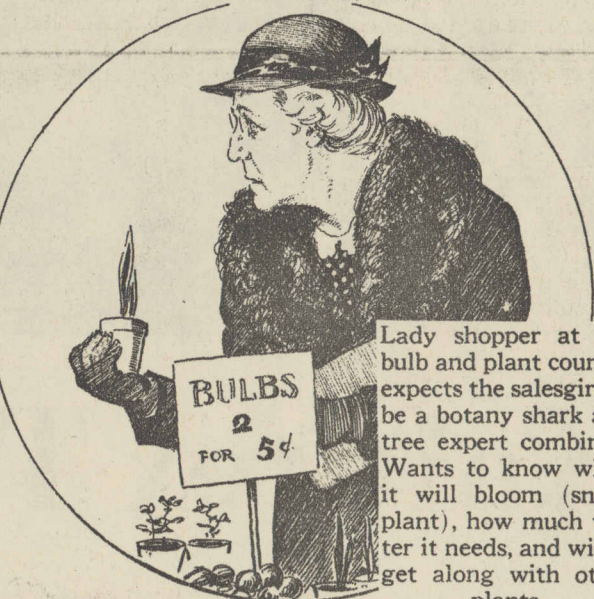
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"You'll never guess where I and Hazel was last night, and was Edna's boy friend stewed!" (This male shopper at the hardware counter is too much engrossed in the salesladies' conversation to remember what he came to the five-and-dime for.)



"Isn't it wonderful what you can get for the kiddies at a five-and-ten?" Maude was surprised at the cocktail accessories department. Just as well if the friend doesn't see her buying caviar and olives at a five-and-ten.



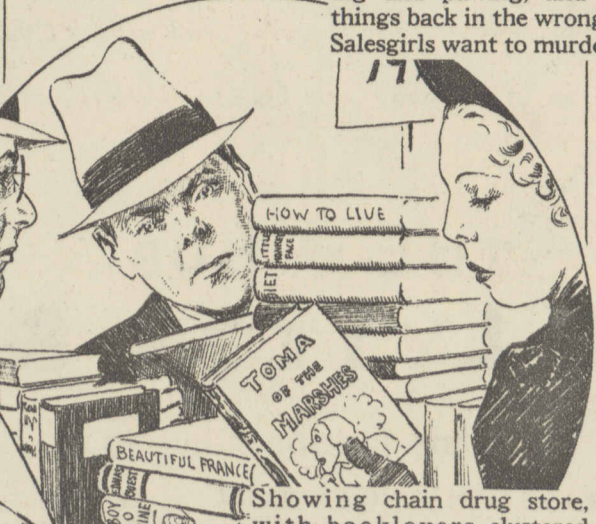
Lady shopper at the bulb and plant counter expects the salesgirl to be a botany shark and tree expert combined. Wants to know when it will bloom (snake plant), how much water it needs, and will it get along with other plants.



These girls are just looking around, picking up things, poking and pawing, and putting things back in the wrong places. Salesgirls want to murder them.



"Is your cold better today, Harry?" Chain store grocery shoppers have favorite clerks, and no others need try to wait on them. A clerk with great big saucer eyes is more often the favored one.



Showing chain drug store, with booklovers clustered around the book counter, where "The Life of Calvin Coolidge," and "How to Win Friends Away From Your ENEMIES, and Get Them Crazy About You," are selling for nineteen cents.



Young man about to give a party, replenishing the cocktail glasses from the five-and-ten counter assortment.



The Heinkel two-seat bomber, built in Rostock, Germany.

slower. The Russian bombers cruise at more than 200, and the fighters at 280.

The German squadrons with Franco use two types of fighters—the Arado biplane, with a BMW 700-h.p. liquid-cooled engine, and the Heinkel monoplane, 600-h.p. Daimler-Benz liquid-cooled engine. The Arado is built of metal spars and longerons with fabric covering. Speed is about 220 m.p.h. Very reliable and maneuverable. The Heinkel is very fast, speed about 270 m.p.h., carries two machine guns and two cannon, and is built entirely of metal, structure and skin, with retractable landing gear, controllable-pitch propeller.

The Germans have two light bombers—the Henschel, a two-place all-metal biplane dive bomber, and the Heinkel two-

place monoplane high-speed bomber. The Henschel has a Hornet engine, the Heinkel a 900-h.p. Daimler-Benz or Junkers liquid-cooled engine. The Henschel does about 215 m.p.h., while the Heinkel is credited with 250. All the twin-engined German bombers have Hornet engines. These ships are either Heinkel, Dornier, or Junkers machines, capable of 240 m.p.h., with a big bomb load and a 1,000-mile range.

The Italian machines in Spain are of three types—pursuit, light bomber-attack, or heavy bomber. Of the first type two machines are in the majority. One is the Fiat C.R.32 biplane, with metal spars and fabric covering. It is powered with an 850-h.p. Fiat V-12 liquid-cooled motor and has a top speed of 211 m.p.h. at 16,500 feet, but is extremely maneuverable and solidly built.

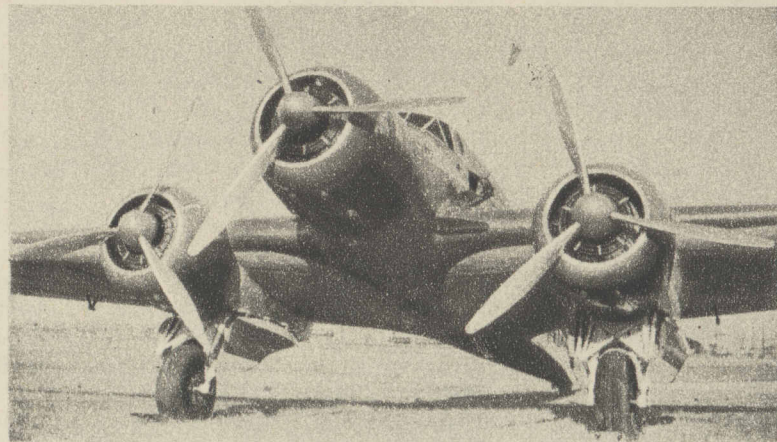
One of these machines made fifty turns of a spin with the motor full on when the pilot passed out at 20,000 feet through oxygen mask failure but regained consciousness after falling into denser air. He was able to right the machine immediately, which speaks well for

its construction and controlability. This is one of the most severe tests ever given any plane.

The second machine is the I.M.A.M. RO-51 an all-metal low-wing monoplane, with a 900-h.p. double-bank engine. Its top speed is supposed to be about 295 m.p.h. at 14,000 feet. It lands at 70 m.p.h. with flaps.

The light bombers, which correspond roughly to American attack machines, are mostly Breda 64s. This is a two-place low-wing monoplane with a double-bank radial engine of about 850 h.p. and retractable landing gear. The speed of the machine is supposed to be 260 m.p.h. It is very lightly built of metal tubing with fabric covering, reinforced at the leading edges and the cockpits with metal sheets. The plane is armed with six machine guns and 500 pounds of small bombs.

The Italian heavy bombers are almost all the Savoia S-79 trimotored machines which have made such excellent records in Italy. These machines, with double-bank Bristol engines, have a top speed of 290 m.p.h. and cruise at 250 m.p.h. with a large load.



Nose of the Savoia S-79, Italy's best heavy bomber.



"Warren and I are getting things for Lil Stoppard's party. Warren is going as Clark Gable, and I'm going as Mae West, and I'm going to carry Charlie McCarthy around and say 'Why don't you come up and see me some time?' And I do think it's a cute idea!"

Showing male bargain hunter who can't resist a Spring clearance sale, a goodwill sale, or a reorganization sale, at the men's furnishing chain store.

This lovely child, separated from his mother for the time being, is refreshing himself with a five-and-dime frankfurter. At the moment he is very much interested in a lady fixing her garter in a corner.