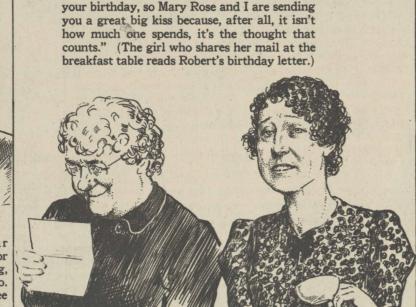
BREAKFAST TABLE FACE

By W. E. Hill





hasn't a pleasant word for anybody early in the morning, and grunts when spoken to. After the third cup of coffee he mellows some.





The Facts About Nazi Air

By WAYNE THOMIS

THE GERMAN air force the war machine that won those of having on hand large numbers of obsolete and obso-



German military seaplanes being groomed for test flights.

is what the United States army air corps calls a production airplane—a first-line fighting ship. Official numbers of German

military aircraft are not known. German magazines and newspapers are carefully edited to omit all this information, and Nazi officials speak only in the most general terms when referring to the Luftwaffe, or air units. It has been indicated by American aviation experts who returned to the United States after visits in Germany that the Nazi air units may be from three to four times as large as the United States army air corps. Guesses range from 4,500 to 6,000 first-line planes.

The production types of planes used for the air force are, however, pretty well known. The Germans, knowing that if they must produce large numbers of ships they will be forced to concentrate on a few standard machines, have been building chiefly bombers and single-seat

There are three kinds of bombers-the Dornier, the Heinkel, and the Junkers. All are twin-motored types capable of speeds up to 300 miles an hour. A Dornier bomber with two Daimler-Benz liquid-cooled engines, each delivering about 1,200 horsepower for takeoff, has been clocked at 320 miles an hour over a 62-mile course.

All three of the bombers have approximately the same range -about 1,900 miles with a ton and a half of bomb load. Both non of large caliber. the Daimler-Benz and new Junkers liquid-cooled engines are used. The Junkers motors de-

are electric ignition motors, not Diesels. The Diesels are not flexible enough and do not develop enough power for their weight to justify them for military use, the Germans say.

It is known that large numbers of these types are still in production in German factories. One large division of the Heinkel works visited by American aircraft manufacturers was said to be tooled up to produce ten Heinkel bombers a day.

The bulk of the smaller ships in the air force are single-seat fighters of either the Heinkel

Heinkel with a Daimler-Benz miles an hour.

The present world's land plane speed record, however, is held by the Messerschmidt plane that flew an average speed of

engine of about 1,300 horsepower is said to be 440 miles an hour. This statement was recently made by Dr. Ernst Heinkel himself during a lecture on his own planes. Ernst Udet, now a major general of the Luftwaffe and chief of the flight development section, recently flew a Heinkel single-seater for 62 miles at a ground speed of 393



(Associated Press photo.)

Heinkel single-seat fighter, one of the fastest military planes in the world.

or Messerschmidt designs. The Heinkel is the U-112 and the Messerschmidt is the Me-109. The Messerschmidt plant also is turning out a twin-engined fighter at this time. This newer type is supposed to do about 300 miles an hour carrying heavy armament and quick-firing can-

Both the single-seaters are using the same motors found in the bombers. There are half a with speeds equal to these. liver between 600 and 1,100 dozen versions of each, dependhorsepower each for takeoff. All ing on the power of the engine own air forces. We have two peller hub, and several machine the engines used in the air force used. Maximum speed for the new pursuit planes, the P-37 and

379 miles an hour in half a dozen laps over a measured course. The Messerschmidt's speed was made both up and down wind and represents performance probably superior to the Heinkel. The speeds, however, are indicative of the supetity production at this time

the P-40, with liquid-cooled Allison engines that are supposed to be extremely fast and maneuverable. The air corps refuses to give any official statement as to the performance of these experimental types of plane, but there are unofficial reports that one of these planes, with the motor developing about 2,000 horsepower, has exceeded 400 miles an hour.

(Associated Press photo.) A squadron of low-wing Junkers

There are, however, only three of the P-40s and only fourteen of the P-37s in existence. The reports from Germany are that there may be as many as several thousand of the Heinkel and Messerschmidt fighters now

Organization of the German air forces is also modern. There are three main divisions - the force of pilots, the anti-aircraft artilery, and the observers.

According to German magazine stories, the pilots are divided into echelons, groups, and squadrons, and the pilots, according to individual abilities and choices, fly observation, combat (bombardment planes), and pursuit planes. Pilots are of all ranks, with a number of noncommissioned officers flying all types of equipment.

Only officers are selected as observers. The observation or reconnaisance plane serves tactical and combat divisions. Close-range observers, according to one German magazine, are charged with "inquiries and artillery observations of divisions, corps, and armies in battle." According to the article, German technique is for the observation plane to go out on its mission alone. The machine is armed with two guns firing forward and one to the rear, but is not comparable in speed or diving ability to the single-seat fighter.

The little fighters go out only in formations, according to the magazine. The requirements rior quality of the German of their planes are swiftness, forces. No other air corps in climbing ability, and capability the world has planes in quan- of turning quickly. Most of the latest German planes, the article said, are equipped with 20-mm. That statement includes our cannon, firing through the pro-

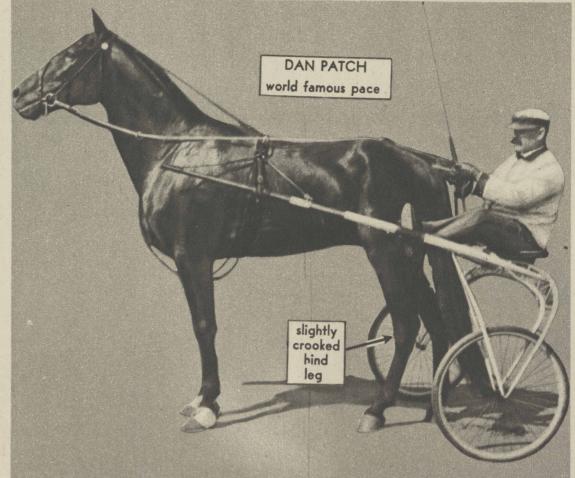
By CAPT. MAXWELL M.

Who doesn't remem-PACER ber Dan Patch, that grand old king of the pacing fraternity? Back in 1906 he knocked off a mile in 1:55 - and the record still stands. Pacers, it seems, are always with us. In any group of horses the mixed gaits are inevitably turning up. The amble of the historic riding palfry in medieval times comes right on down to the side-wheel gait found on American soil today.

From time to time pacers have been imported from Canada, where early families were founded. These horses have been for the most part swallowed up in the whirlpool of American harness racers, Canadian stock being more inclined to saddle ways.

At one period in the development of pacers toward speed a distinctive conformation was claimed by enthusiasts as the ideal type. Instead of the straight hind legs admired so much in thoroughbreds, the pacer boasted a crooked one, and an unsightly, exaggerated, drooping rump. Dan Patch, however, didn't have these qualities - or drawbacks - to any significant extent.

Much interbreeding with other fast horses now seems to have rendered the gaits somewhat interchangeable. Today it is hard to predict



whether a foal will trot or front, then left hind and front.) alternate placing of right hind

pace. (As explained in an In fact, the mere shift of the earlier article, the trot is an check a hole or two, or the addition or removal of an ounce or and left front, left hind and two of shoe weight, will convert right front, while the pace is many pacers to trotters and a placing of right hind and vice versa. The great triumph

of the American harness breeders lies in the fact that within a century they have produced trotters and pacers only a little slower than the runners.

Next Sunday-The Half-Bred.