THEY WEAR GLASSES

By W. E. Hill

A man wearing glasses and a passionate kiss just don't mix. The glasses are bound to fall off, and by the time they are salvaged and Honey has assured Lovey that it wasn't her fault, the spell is broken.

Girl with the new bifocals having trouble boarding a bus. The bus conductor thinks she's had a little liquor.

The glasses hunt, an almost daily occurrence in the home of an astigmatic.

Farsighted man, minus his specs, reading a luncheon menu. (This will be a great comfort to a nearsighted spectator.)

People who can't see more than a few feet away don't always miss so much when they lose their glasses. It would be nice, for instance, NOT to see the stout girl whose slip is showing, the young lady in process of dislodging a bit of Virginia ham from a tooth, or the man looking roguish at the hatcheck girl.

Nearsighted man who forgot his glasses. He's trying to look nonchalant after greeting the wrong woman with open arms and a glad cry of "Why, Lambkins!"

Dance floor, showing the nearsighted girl who won't put on glasses in public. Wears a set smile so that she won't slight any one she knows. (She can't recognize people two feet away.) To the right is the man whose nose perspires when he dances. He has a terrible time keeping his glasses on.

The wearers and their glasses: The lorgnette, for women who don't want to spoil their looks. The beribboned eyeglasses for a touch of grandeur. The big spectacles for them as don't care.

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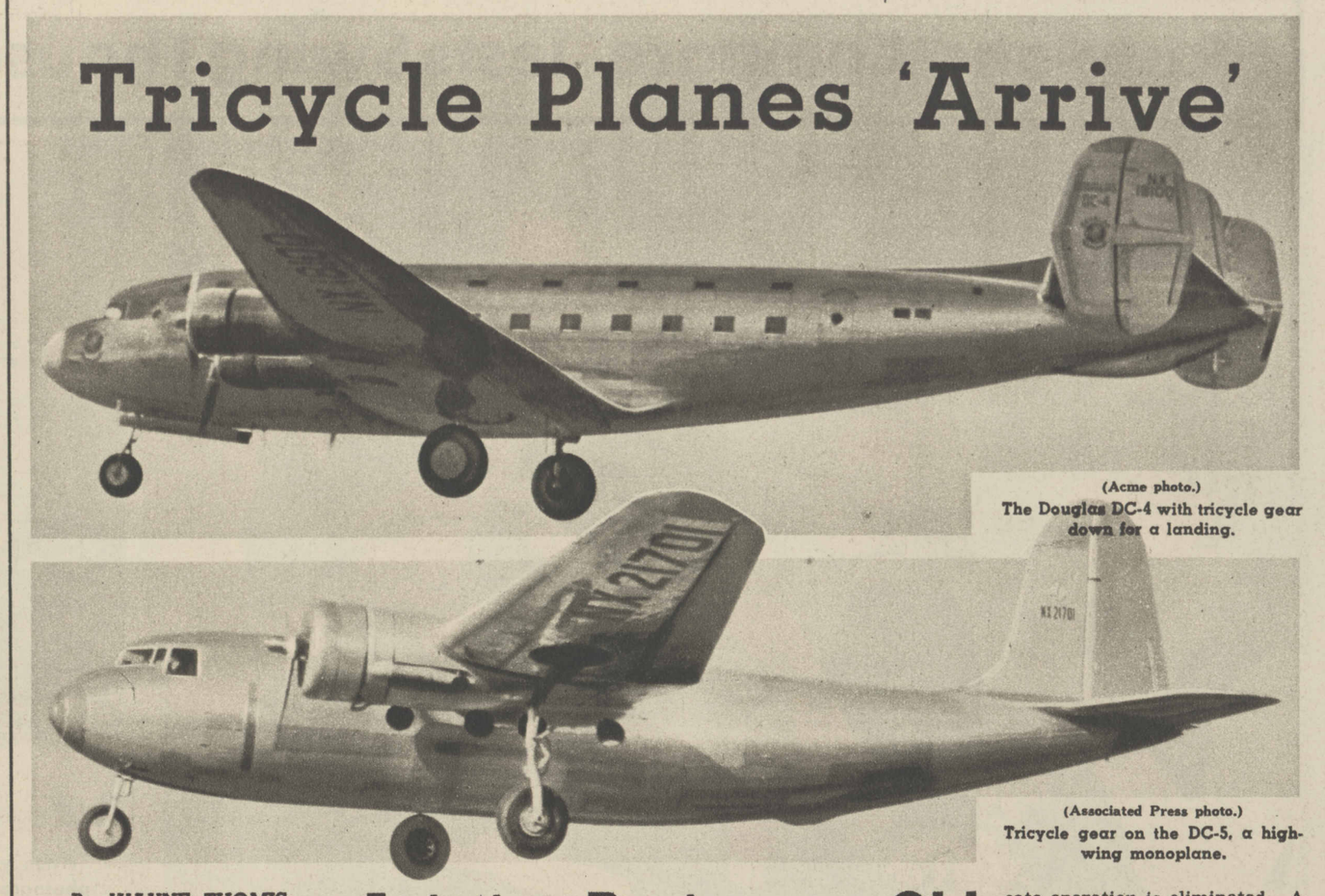
Tricycle Planes 'Arrive'



(Acme photo.)
The Douglas DC-4 with tricycle gear down for a landing.

(Associated Press photo.)
Tricycle gear on the DC-5, a high-wing monoplane.

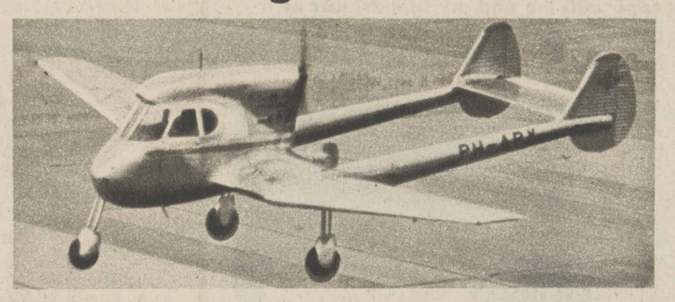
Aviation Revives an Old Landing Gear Idea

By WAYNE THOMIS

THE tricycle landing gear is here to stay. In three years this revival from the airplane's earliest days has proved its place in modern aviation, and virtually every category of airplane now has one or more types with this safe and simple form of landing gear.

Flight tests and experience have lulled the general suspicion that arises with both engineers and pilots when anything unusual is tried. Pilots like the tricycle gear because it permits them to make safe cross-wind landings, eliminates the dangers of nosing over, and, best of all, makes impossible the dangerous ground loop that has scored so many wing tips and smashed so many landing gears.

The engineers who objected to this type of gear from the beginning because it demanded certain changes in the balancing of planes on the ground, and consequently demanded revisions of the placing of centers of pressure and gravity in the air, are now its most ardent disciples. It permits higher landing speeds with safety and thus makes possible better performance without power increases. And it prepares the way for the day when most airplanes will be pushed through the air by propellers acting behind the wing instead of pulled through the air by propellers ahead of the main lifting surfaces.



Stearman-Hammond pusher plane that started the revival of tricycle gear as safety measure. (Acme photo.)

The Wright brothers in their earliest planes established the trend toward the nose wheel. On these ships, instead of wheels they used skids, and they had skids that extended far forward to the plane's elevators, that were—in the earliest models—ahead of the wings.

When Glenn Curtiss added wheels to his airplanes the Wrights followed his example. Nose wheels were universal on all models until the vogue for tractor airplanes—those with motors and propellers ahead and with the rudder and elevators at the rear—forced designers to eliminate the nose wheel.

About five years ago, under the régime of Eugene Vidal in the old bureau of air commerce, engineers began casting about for an ultrasafe plane. They finally decided that in addition to eliminating stall and spin they must simplify the landing maneuver and stop ground looping.

Landing with a plane equipped with a tail skid or wheel is a sort of tight-wire balancing act. The plane is glided toward the ground, but before touching down the ship is flared off and held level until the speed begins to diminish. Then the nose is raised until just as the ship stalls the main wheels and the tail wheel touch together.

This is a neat trick that takes a beginner weeks of practice to learn properly. Also it's a trick that cannot be performed in certain large airliners when their load distribution is unfavorable.

With the nose wheel this delicate operation is eliminated. A plane is merely glided toward the ground and flared off enough to kill its speed. Then the nose wheel or the main wheels are allowed to touch and the brakes applied. The plane cannot nose over forward, and a very quick stop can be made.

Ground loops are caused when the main mass of an airplane tries to get around in front of the main landing wheels. By putting the nose wheel on a plane and moving back the main wheels until they are behind the center of load the ground loop becomes impossible.

These theories were tried out first in the Stearman-Hammond pusher type plane and the earliest Weick high-wing pusher. The Stearman-Hammond was a successful machine, and from it the largest manufacturers in the country—Donald Douglas, Reuben Fleet of Consolidated, and others—learned lessons that have now been applied.

The DC-4, a forty-passenger airliner that will be in service on the country's main air routes by 1941, has a nose wheel. So has the army's latest and certainly one of the world's fastest pursuit planes—the Lockheed XP37.

So successful has the nose wheel application on the DC-4 been found that the latest Douglas—the DC-5, a sixteen-passenger twin-engined high-wing passenger plane with a top speed of 250 miles an hour—also has a nose wheel.

Monkeys Are Muscular Marvels

(Continued from page eight.)

activity. Those that pass their time principally on the ground, in contrast to the arboreal species, are very fleet. Mr. Huizinga says that almost any monkey can run faster than a dog of its same size. The bunder, or rhesus monkey, which is the commonest of monkeys found in captivity, is remarkably active on the ground or in scampering over huge bowlders. The monkeys formerly in residence through the summer on the great rocky island in the zoölogical garden were of this species.

A fully grown male baboon, of which there are several specimens at the zoo, is more than a match for any two dogs in strength, agility, and cunning. Leopards in their native habitats are extremely wary about seizing a young baboon if there is a pack of the mature animals about. Although, according to the keepers at the zoo, the baboon has a cowardly streak in him, it is known from what travelers have to tell that the animals frequently kill leopards and other predatory beasts. Baboons generally refuse to fight singly, but put up a vicious scrap when uniting to mob an enemy. The mandrill, or rib-nosed baboon from West Africa, is the strongest and most vicious of this class of animals. Other beasts have a great respect for its fighting qualities.

Although some species of monkeys are veritable nitwits, there are other species that are remarkable for their cleverness. Most intelligent of the monkey folk, according to Mr. Bean, are the sapajou monkeys, which use their tails and which join rods together in order to reach for food. Of this group is the capuchin, which frequently is encountered as the droll assistant of the organ grinder. The sapajous are South American monkeys. Head Keeper Huizinga, while admitting that monkeys are not so smart as they frequently are thought to be, says that they often display traits that are curiously human. For example, he asserts that among his charges in the primate house are monkeys that are typical "yes men." They fawn upon the keepers for what they can get out of it.

White-nosed monkey. (Tribune photo.)

Not so spry as the monkeys, but proportionately as powerful and many times more powerful than men, are the great apes, of which the Brookfield zoo has representatives of three species. Its young gorillas, Miss Congo, Suzette, and Sultan, have not yet reached any great size and consequently are not nearly so strong as they will be at maturity. Yet Mr. Bean tells of how these youngsters, when still weighing no more than sixty pounds, could lift a man of 175 pounds off the floor with no apparent effort. One or the other of these young gorillas, standing on a shelf, often would reach down with one hand, take hold of a man, and lift him up. No boy of sixty pounds could lift a man of three times his weight off the floor in this manner. Mr. Bean believes that a full-grown male gorilla would be able to pull as much as a dozen men in a tug of war, and that not enough men could get around a beast such as this in order to overcome it. The largest gorilla known to zoölogists died not long ago in Berlin. It weighed 596 pounds. It was greatly overweight, however. Full-grown healthy gorillas are very large at 450 pounds.

The zoo has three chimpanzees, the largest of which, Mike, is 12 years old and weighs about 180 pounds. He would be more than a match for five men, in the opinion of Mr. Huizinga. Although he moves about his cage with extreme deliberation, he actually is much faster than any man. For that reason the keepers have to watch out when they get near his cage. Charles, a 125-pound chimpanzee, lurches at the bars of his cage with such force that if his hands were built like those of humans every bone in them would be broken.

The zoo's lone orang-utan is a 200-pound female known as Teo. She appears to be a gentle lady as she sits peering out at the crowds from behind her bars, but she's got the strength of many men in her huge arms. A great oak timber that almost defied the cutting edge of a chisel was splintered by her powerful teeth. When she was placed in a temporary cage while her own cage was being supplied with thick iron bars, she quickly tore loose many of the bars of her temporary residence.