



**JINDIVIK ROARS AWAY**—The Australian target plane shown above darts through the sky while hotly pursued by guided missiles. Controlled by radio from the ground or from a "mother" plane, the little jet takes off from a cart and lands on a skid—unless it falls victim to the guided missile under test. Designed to be shot down in great numbers, a little target plane can be built for \$14,000.

## AERONAUTICS

## Australian "Jindivik" Is Guided Missile Target

➤ A PILOTLESS target plane powered by a jet engine has been created in Australia to give lively chase to new guided missiles tested on the Woomera rocket range.

Developed by the Australian Aircraft Factory with aid from the Aeronautical Research Laboratory at Melbourne, the little plane was designed to be expendable in great numbers. Cost of the Jindivik is about \$14,000.

The Jindivik takes off from a cart-like carriage which jettisons when the plane climbs into the air. Then the plane can be radio controlled in flight by ground technicians or by "pilots" in a mother plane flying far enough away to be secure from the guided missiles under test. If the plane successfully eludes its deadly pursuers, it lands on a special skid.

The plane weighs 6,500 pounds, has a wingspan of 20 feet and a fuselage length of 22 feet.

Until six months ago, the plane was tested by pilots who actually flew the plane by its own controls. But now the pilot has been replaced with electronic equipment which permits the plane to be shot down at no hazard to human life.

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## OPHTHALMOLOGY

## Army Tests Contact Lenses

➤ ADVANTAGES AND disadvantages of contact lenses for military service and civilian use were reported by Dr. James L. McGraw of Syracuse, N. Y., and Dr. Jay M. Enoch of Fort Knox, Ky., at the meeting of the American Academy of Ophthalmology and Otolaryngology in Chicago.

Their report was based on a study by the Army Medical Research Laboratory in which tests were made in the laboratory and in the field under conditions like all those a military man might meet in routine life and in battle.

Contact lenses are thin shells of glass or plastic worn on the eyeball instead of conventional spectacles or eyeglasses.

Four types of contact lenses, as well as ordinary spectacles, were tested in various activities, in different temperatures even to the extremes of 40 degrees below zero and 120 degrees above, and a simulated altitude of 20,000 feet.

Contact lenses were for the most part superior to spectacles in the field tests, the investigators stated. For ordinary use, on the other hand, old-fashioned spectacles have many advantages on their side. It was not possible to make a blanket approval or disapproval of either of these indispensable aids to vision.

One of the biggest advantages of contact lenses shows up when the weather is bad. Rain, snow and mud present no problem when they are worn. Frosting and steam-

ing is avoided. Headgear and sighting devices and gas masks all present problems to the spectacle wearer which contact lenses do not.

In strenuous physical activity, spectacles are easily dislodged and broken, while contact lenses are not and also offer greater protection to the eyes. Contact lenses do not reflect light as spectacles do and therefore are less likely to reveal a hidden position to the enemy. For some eye conditions, contact lenses give better vision.

The disadvantages of contact lenses are their cost, the time and skill required for fitting them, Drs. McGraw and Enoch pointed out. Other problems are that some contact lenses must have an accessory fluid; it is difficult to keep them clean; they are easily lost; the glass ones are easily broken, and the eyes are more sharply irritated by gases, smoke and dust when contact lenses are worn. The length of time they can be worn is limited.

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For the fifth consecutive year, the total number of *students* enrolled in approved U. S. medical schools has established a new record; the 1952-53 total was 27,688.

*Whooping cranes*, seriously threatened with extinction, winter in Arkansas after spending the summer in Canada's Northwest Territories.

## TECHNOLOGY

## Baltimore Western Union Tries Tired Messengers

➤ WESTERN UNION officials in Baltimore are trying out tired messengers to speed telegram delivery in the suburbs. The messengers are rubber-tired station wagons, however, not exhausted cyclists.

When a telegram is received at the central office, a station wagon cruising in the vicinity of the addressee is alerted by radio. Then the telegram is transmitted to the spinning drum of a Telefax set in the vehicle. By the time the telegram has been transmitted, the car has reached the message's destination. The driver merely slips it into an envelope, hops out of his traveling office and jabs the doorbell to deliver the telegram to the addressee.

The experimental system enables one messenger to deliver more than nine telegrams an hour. Company officials seem pleased with the results turned in so far by their six roving offices. When the "bugs" are worked out, they plan to extend the Telefax station wagon system to other cities.

They even are contemplating a private sort of traveling message receiver for the businessman who rides around in an automobile equipped with telephone. They believe that their Telefax receiver can be adapted to plug into this radiophone to take down in written form office memos, reports and messages sent to the man by his office.

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