

have been used mainly for reconnaissance work and directing artillery fire. This is the first time that they have been used as flying ambulances.

Because of their steep climb, low landing speed, and ability to land and take off after a run of only 65 yards, they can operate in and out of small jungle clearings where larger airplanes cannot possibly go.

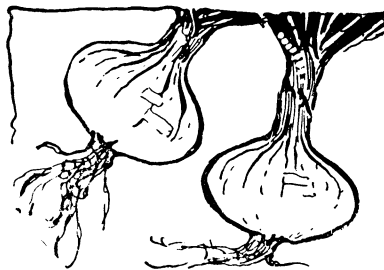
They will save many hours in time required to move wounded soldiers from highly inaccessible places. Wounded been flown back to base hospitals in 45 minutes, a trip that would take litter bearers 10 hours.

Converted to ambulance work, each grasshopper will carry one standard stretcher. Probably the smallest warplane in use, it has a wing span of only 34 feet, a length of 24 feet, and is powered by a 185 horsepower engine.

Military surgeons, in praising the new use for tiny aircraft, stated that many seriously wounded soldiers, abdominal cases in particular, can be saved if operated on within the "golden period"—that precious four hours immediately after injury, before infections develop.

Science News Letter, June 10, 1944

Approximately 200,000 women are now employed in all branches of domestic transportation—rail, water, air, motor, street car and pipe line—or about 8% of the total employment in the field.



Better Onions Coming

► ONIONS in tomorrow's market-basket will be bigger and better as a result of a new method for producing hybrid varieties developed by two U. S. Department of Agriculture scientists, Dr. Henry A. Jones and Dr. Alfred E. Clarke. The two men have just been voted the Vaughan Research Award of \$500 for a paper describing their procedure, which was published in the *Proceedings of the American Society for Horticultural Sciences*.

Hybrid plants of any kind are very likely to be bigger and more vigorous than either of the parent varieties. This has been well demonstrated in hybrid corn. Hybrid onions, therefore, were

considered a most desirable kind of vegetable to try for.

To produce a hybrid plant, the pollen of one variety is placed on the pistil, or seed-producing part, of a different kind of plant. To make sure that fertilization with the female parent's own pollen does not occur, the pollen-producing organs, or stamens, must first be removed.

This is easy to do in a cornfield, for the stamens are in the tassel at the top of the stalk, well away from the silks on the ears, which receive the pollen and help complete fertilization. All the grower needs to do is go along the rows, pulling the tassels off the stalks that are to be the female parents of his hybrid corn.

This situation, however, is quite exceptional. In most plants, stamens and pistils are produced close together in the same flower, so that preventing self-pollination is a tedious job requiring fine-pointed tweezers. On a field scale this is obviously impracticable.

By close watching, Dr. Jones and Dr. Clarke discovered a strain of onions in which nature had obligingly done the job without prompting: the female parts of the flower were capable of producing seed, but the stamens contained no fertile pollen. Fertilizing these exclusively female flowers with pollen from different varieties of onion, it is possible to produce hybrids with any combination of qualities desired, and at the same time receive the advantage of the extra vigor and size that goes with hybrid growth.

Keeping the female parent strain going presents no particular difficulty. Like many varieties of onion, it produces bud-like bulbils, or "top sets," and since these are not sexually produced they carry only the hereditary characters of the plants on which they grow.

Market gardeners raising hybrid onions are not expected to grow their own seed. This will be a specialists' job, as the production of hybrid seed corn is at present.

Science News Letter, June 10, 1944

Extra *red corpuscles* are developed by persons living at high altitudes to take care of oxygen needs.

Carrot-corn *ensilage* recently tested on milk cows at the Ohio Agricultural Experiment Station proved palatable, gave good returns in milk, and a small favorable effect on the yellow color of the butterfat produced.

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