



QUICKLY ASSEMBLED—The three sections of the pneumatic LCT packed in their compact bundles prior to inflation.

ENTOMOLOGY

612 Repels Mosquitoes

New war-born repellent kept yellow fever mosquitoes away for 20 hours under laboratory conditions; it is also effective against chiggers.

► **CHIGGERS** as well as mosquitoes are discouraged in their nefarious business by the war-born insect repellent known as 612, Dr. Philip Granett of Rutgers University told fellow-entomologists at the New York meeting of the American Association of Economic Entomologists. As a chigger repellent, 612 is most effective when applied to the clothing; its effect then lasts for several days.

Under standardized laboratory testing conditions, one application of 612 on a limited skin area kept mosquitoes away for an average of about nine hours; applied in more liberal quantities, it held off *Aedes aegypti* (the yellow-fever mosquito) for as much as 20 hours. In the field, effectiveness does not usually last so long, because some of it is removed by rubbing against foliage and other objects, as well as by the user's own perspiration.

Chemically, the new repellent is 2-ethylhexanediol-1, 3; its convenience-designation, 612, is simply its series number in tests that were run at Rutgers. It was used successfully by the armed forces and other war services under a wide variety of campaign conditions. It is a slightly viscous, colorless liquid with a mild, witch-hazel-like odor. It is non-irritating to the human skin, and lasts

well in storage even under extreme conditions.

Limited amounts of 612 were made available for civilian use late last summer; next season adequate quantities should be ready for general trade distribution.

While some entomologists are seeking chemicals that will drive off insects, others strive to find things that will bring the pests a-flying—to feast on Borgian banquets of poisoned bait or to fall to their death in traps. This has been the task of Dr. George S. Langford and Prof. Ernest S. Cory of the University of Maryland, who reported at the same meeting on success with new attractants for Japanese beetles.

Before the war, the standard Japanese beetle attractant was a mixture of eugenol and geraniol—the latter more commonly known as geranium oil. War made these compounds scarce, and new ones had to be sought.

The two Maryland entomologists tried out 100 different mixtures, and found that 40 of them had definite attractions for Japanese beetles. Ten of them ranged from two to three times as effective as the geraniol-eugenol standard. Two compounds, phenyl ethyl butyrate and caproic acid, were found to be exceedingly promising as ingredients for beetle

baits. Caproic acid, especially, seems able to give previously used attractants even higher drawing power to beetles roving in the neighborhood.

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SEISMOLOGY

Earthquake on India Coast Strong as Tokyo Quake

► **THE EARTHQUAKE** that caused the disastrous tidal wave along the northwest coast of India was felt by instruments in observatories all over the world; no less than 19 of them transmitted data to the U. S. Coast and Geodetic Survey through Science Service. The observatory of the California Institute of Technology at Pasadena reported that the disturbance on the sea bottom where it centered was at least as severe as the earthquake that wrecked Tokyo and other Japanese cities in 1923.

Seismologists of the U. S. Coast and Geodetic Survey gave out a revised location for the epicenter, which places it a little to the southeast of the spot named previously. (*See SNL Dec. 8.*) The new location is in latitude 22 degrees north, longitude 60 degrees east; this is on the sea bottom near the head of the Arabian Sea, about 300 miles southwest of Karachi, where heavy wave damage was reported. First shock took place on Wednesday, Nov. 28, at 1:56.9 a.m., Karachi time.

Observatories reporting were those of the Jesuit Seismological Association at St. Louis University, Georgetown University, Fordham University, Xavier University (Cincinnati), Spring Hill College near Mobile, Ala., and Weston College, Mass.; of the U. S. Coast and Geodetic Survey at Chicago, Tucson, Ariz., Honolulu, Sitka and College, Alaska, and San Juan, P. R.; the U. S. Reclamation Service at Boulder City, Nev.; the University of Nebraska; Franklin Institute, Philadelphia; the private observatory of Fred Keller, Sr., at New Kensington, Pa.; the Carnegie Institution of Washington at Huancayo, Peru; Riverview College, Sydney, N. S. W., Australia; the Dominion Observatory, Wellington, N. Z.

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The valleys of *Ethiopia* are mostly about 8,000 feet in elevation.

The hemlock looper, *Ellopiopsis lugubrosa*, devours its weight of hemlock needles in an hour, and does it hour after hour.