



Shoreline Victory

HORDES of flying enemies that threatened the success of the new aviation training program along the northwestern Gulf coast of Florida have been defeated in a joint chemical warfare campaign conducted by the U. S. Department of Agriculture and the U. S. Public Health Service. Benefited also were the civilian population of the region and the long-suffering Florida cattle.

The enemies were uncountable myriads of biting flies, known locally as dog flies. They were the same species as stable flies elsewhere—insects that look very much like common house flies, but armed with fierce little dagger-like mouthparts that make life miserable for man and beast.

These flies have long been intolerable

pests to human beings, and sometimes a cause of loss among cattle. The poor beasts flee into swamps to escape their bites, become bogged down and perish. However, when they began seriously to interfere with the aviation training program, prompt action was called for.

When Dr. W. E. Dove of the Bureau of Entomology and Plant Quarantine, with headquarters at Panama City, Florida, moved into the field, the first thing he sought was the enemy's operating base—the places where they bred. He found this to be the great windrows of fermenting aquatic vegetation cast up on the shores of bayous and backwaters reaching inland from the coastal sandbars.

Sprays of arsenical insecticides were found to be effective, but the most practicable and economical means of attack proved to be creosote oil, diluted in a Diesel light fuel oil. Attack was delivered from barges operating in the shallow inshore waters, each barge carrying a power sprayer and lines of hose with nozzles. Colored day laborers formed most of the crews.

A single application was found to be completely effective against larvae and eggs already in the fermenting masses. It also discouraged adult flies from returning to deposit more eggs.

Residents of the region reported that they had never enjoyed a season so nearly completely free of dog flies, and the flying cadets could stop swatting and squirming and concentrate on learning the business of winged warfare.

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ENGINEERING

Building Up Machine Parts Can Save Much Metal For War

WORN machine parts, such as shafts, bearings, hinge pins, pistons and the like, can be built up to their original dimensions at one-third to one-half the cost of new parts and in some cases with wearing qualities superior to the original, was the statement made by W. J. Cumming, automotive engineer of the Surface Transportation Corporation, at the meeting of the Society of Automotive Engineers in Detroit.

The building up is done by spraying the worn part with a fine mist of molten metal blown from a gun. The piece is first prepared by roughening its surface

by sand blasting or other means according to the nature of the metal. This insures interlocking or dovetailing of the new metal to the old. The built-up piece is then machined or ground to the proper size and quality of surface.

The wearing qualities of the built-up piece can be made superior to the old by coating it with a harder metal. This can also be done with new pieces, Mr. Cumming stated. This would effect an economy of the hard metals.

Of the materials that can be sprayed in this way, Mr. Cumming mentioned aluminum, babbitt, brass, bronze, copper, lead, monel, iron, steel (including



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