War Emergency Pipeline, Inc., which was organized and is owned by eleven large oil companies who serve the Atlantic seaboard. As previously stated, the Texas-Illinois section of this project was let to seven well known pipeline contractors, as follows:

Anderson Brothers, Little Rock, Arkansas.
O. E. Dempsey Construction Company, Tulsa, Okla.
Charles S. Foreman Company, Kansas City, Mo.
Midwest Engineering & Construction Co., Tulsa, Okla.
Williams Brothers Corporation, Tulsa, Okla.
Oklahoma Contracting Company, Dallas, Texas.
Ray L. Smith Const. Co., Eldorado, Kan.

These contractors working simultaneously at different points, laid pipe at a rate averaging about six miles a day. In addition, an exceptionally interesting part of this project was done by the George C. Bolz Dredging Company of St. Louis. Their job was to lay the pipe across the Mississippi River. Most of the accompanying illustrations show their work.

All of the pipe on this project is of 24 inch diameter with a ⅜ inch thickness. The sections average from 38 feet to 44 feet in length, and weigh from 3,800 to 4,200 pounds. Within the completed section are eleven pumping stations. Eight major river crossings were involved.

Oil was pumped into this pipeline in Texas on the night of December 31st, 1942. It reached the storage tanks at the Illinois terminus on February 13th, 1943, at the rate of about 50,000 barrels a day. The maximum capacity of the line is 300,000 barrels a day. In the line, at all times, will be 1,525,000 barrels of crude oil.

This is another of the many vital war projects on which Hercules (Red-Strand) Wire Rope is taking an important part, as it was used by a majority of the original seven contractors.

On October 28th, 1942, the W.P.B. authorized the extension of this pipeline to an eastern terminus in Pennsylvania, and work on this extension is now under way. The total cost of the project is estimated to be $95,000,000.00.

QUININE STATUS OF ALLIES EASED
Guatemala Plantation Offsets Dutch Indies' Loss

Cinchona trees at El Porvenir, a 17,000-acre plantation on the slopes of an extinct volcano in Western Guatemala, provide a fresh source of quinine for the United Nations.

It would be a dream come true for President Justo Rufina Barrios if he were alive today. He started the plantation some sixty years back in an effort to develop and diversify his country's economy.

But the Dutch in the East Indies grew cinchona more cheaply than President Barrios could, and El Porvenir—which means "the future"—grew rank and untended. The cinchona trees were being used for firewood and fenceposts.

Then Japan captured the world's supply of quinine in the Dutch East Indies. Cinchona production for quinine became of great importance again in Latin America, where it originated.

El Porvenir is the largest single concentrated source of quinine known in the Western Hemisphere. Aerial surveys indicate that it has enough cinchona trees to provide an estimated 25 per cent of our supply of quinine for the next few years. After that, other Latin American areas may catch up.

The Gualemalan source is particularly handy because the bark can be shipped overland to the United States for processing.

Contracts have been signed through the Board of Economic Warfare with the Guatemalan Government whereby the entire output becomes available to the United States.

In addition to furnishing quinine, this plantation will provide sufficient seeds for the rest of this hemisphere, it is stated. A laboratory beng established there will carry on experimental work in creating higher-producing

hybrid strains of cinchora and will train experts in quinine production.

El Porvenir lies about 4,000 feet above the sea, with the heights of the extinct volcano, Tajmulco, Guatemala's highest mountain, towering another 10,000 feet above it. The plantation is only six miles off the new Pan-American highway.

With thousands of troops fighting in tropical areas where malaria is a constant threat, the needs for quinine are extensive.

STUDIES ON THE COMPARATIVE ATTRACTIVENESS OF 25-, 50- AND 100-WATT BULBS FOR PUERTO RICAN ANOPHELES.

Harry D. Pratt, P.A. Sanitarian (R)
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Although it often has been observed that more anophelines are attracted to light traps equipped with bulbs of greater light intensities than is the case when the standard 25-watt bulb is used, there seems to be no supporting experimental data on record. During the Fall of 1943 the writer operated three New Jersey type light traps with 25-, 50- and 100-watt bulbs simultaneously near Cucharillas swamp in Catano, Puerto Rico. These traps were approximately 150 feet apart and the bulbs were interchanged at intervals of 3 to 5 days to minimize the effect of location of any particular trap on the experiment. Mosquito collection data for ten nights, when all three traps appeared to be working properly, are given in Table I.

These data suggest that anophelines are attracted to light traps in numbers which are roughly proportional to the wattage of the bulb used. A comparison of the total numbers of female **Anopheles** (the numbers of males taken were not large enough to be significant) shows that the traps operated with 50-watt and 100-watt bulbs collected 2.6 and 4.0 times as many **A. albimanus** Wiedemann respectively as did the trap having a 25-watt bulb. Similarly the collections of female **A. vestitipennis** Dyer and Knab show that the traps with 50-watt and 100-watt bulbs collected 2.7 and 4.8 times as many females respectively as did the trap having a 25-watt bulb.

In the case of **A. grabhamii** Theobald the increase in the number of females collected at increased light intensities was not so marked. Although the trap equipped with a 50-watt bulb collected 1.8 times as many females as did the trap with the 25-watt bulb, the one having a 100-watt bulb collected only 1.9 times as many.

CONCLUSIONS: Although there was considerable variation on individual nights, in general these seems to be a definite tendency for traps with lights of 25, 50 and 100-watt intensities to attract females of **Anopheles albimanus** and **A. vestitipennis** in numbers which are approximately proportional to the wattage of the light bulb. In the case of **A. grabhamii** approximately twice as many females were collected with a trap equipped with a 50-watt bulb as with one having a 25-watt bulb, but greater numbers were not taken when a 100-watt bulb was used.