

ported, "make desirable" further study of the possibility.

Coal tar chemicals in soot were believed to be the cause of a kind of cancer that attacks humans and was known as "chimneysweep's cancer." The chemical relationship between these cancer-

causing substances and other naturally occurring substances in the human body, such as the sex hormones, has led many scientists to hope for at least a partial solution of the cancer problem through studies of the coal tar cancers in animals.

Science News Letter, June 1, 1946

HYDROPONICS

Soilless Farms for Japan

In Japan the world's largest soilless gardens are under construction to supply green salad vegetables for our occupation forces.

► The world's biggest soilless gardens, where vegetables are raised in long beds of gravel on water solutions of fertilizer chemicals, are now under construction in Japan. Details of the gardens, which will supply green salad vegetables for our occupation forces, were disclosed by Lt. Col. Ewing Elliott of the Eighth Army, in charge of the project, who is in Washington for a short time, to arrange for further work.

Over-all area of the gardens (or perhaps farms would be the better word) is 80 acres, divided into two sections—55 acres at Chofu, near Tokyo, and 25 acres near Otsu, about six miles north of Kyoto. Each consists of a series of long, shallow concrete troughs, filled with washed river gravel, through which the solution of chemicals is flowed every two days, to maintain moisture and feed the plants.

In similar but much smaller gardens used during the war, tomatoes, lettuce, radishes, cucumbers and green peppers were grown successfully. To this basic five Col. Elliott expects now to add green onions, carrots and spinach for salad purposes. Japanese labor will be employed throughout; it is expected that 1,000 men will be kept busy raising greenstuffs for the American forces in Japan.

This method of producing vegetables was adopted for two reasons: Japanese methods of cultivation make it unsafe to eat any of their produce raw, and in any case Gen. MacArthur wants every acre of Japanese farm land devoted to the task of staving off famine among the Japs themselves.

Japanese agricultural scientists are very much interested in the project, seeing in it a possibility of increasing food production in their over-crowded country. The universities of Tokyo and Ky-

oto are cooperating, as well as the Ministry of Agriculture. Col. Elliott's principal assistant is Dr. Tyozaburo Tanaka, emeritus professor of horticulture at the Imperial University of Taihoku, Formosa. Fifty university graduate students have asked to be taken on as laborers, to get a chance to learn the technique.

Soilless gardening got its first large-scale try-out on barren Ascension island, just south of the equator in mid-Atlantic, where there was a large American airbase during the war. The area of this garden, however, was only two and one-half acres, as compared with the 80-acre installation in Japan.

One two-acre soilless garden is now in operation on Iwo Jima, and additional moderate-sized ones are planned for some of the other Pacific islands where American troops are stationed.

Science News Letter, June 1, 1946

ENTOMOLOGY

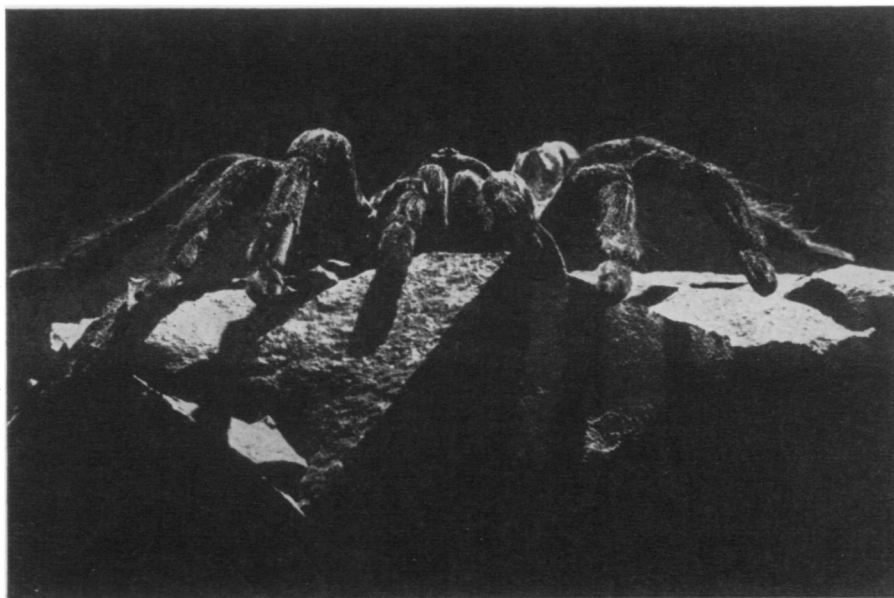
Spiders and Butterflies Wanted Wholesale

► IF YOU HAVE any tarantulas—really big, poisonous brutes, with all their legs attached—Ward's Natural Science Establishment in Rochester, N. Y., will make you an offer. This firm, pioneer in the business of supplying schools and colleges with specimens of all kinds, regularly does business with some 200 professional collectors of spiders, insects, and other many legged creeping things.

Ward's regularly issues a "desiderata"—a list of things they want. The current list requests wholesale lots of about 200 North American insects in all stages of development. Certain kinds of moths and butterflies are wanted in quantities of 100 or more.

Science News Letter, June 1, 1946

Wintergreen and chocolate top the list of preferences of spicy odors, a recent group test indicates.



TARANTULA—Close-up portrait of a tarantula, poisonous spider collected in the Southwest for Ward's Natural Science Establishment, Rochester, N. Y., suppliers of natural science specimens for educators and collectors. Only the biggest specimens are taken for the establishment's stock of over 400,000 insects.