

RESOURCES

Axis Sulfur from Italy

Two-thirds of supply essential in war production is produced in Sicily. Rest will be lost when northeastern part of Italian peninsula is taken by Allies.

➤ TWO-THIRDS of the all-important supply of sulfur for the Axis will be lost when Sicily is taken. The rest will be lost when the sulfur mines in the northeastern part of the Italian peninsula are controlled by the United Nations. Nazidom will then have to rely on its stockpiles. No other source is available. And sulfur is an absolute essential in modern mechanized war.

Sulfur and its compounds have a thousand war-manufacturing uses. Most of it is consumed as sulfuric acid. Metal manufacturing industries use thousands of tons annually. It plays its part in the making of bullets, bombs and torpedoes. It is essential in the production of important explosives. Nitrated celluloses, used for many different purposes from smokeless powder to plastics, are produced by its use. Superphosphate fertilizer to increase the food supply is made with it from natural phosphates. Pure sulfur is used in rubber vulcanizing and in insecticides and fungicides. It has many other uses.

Nearly one-half of the sulfur used in the United States is consumed in making chemicals, including sulfuric acid and explosives. One-fourth is used in fertilizers, insecticides and fungicides. The pulp and paper industries consume nearly as much. Paint and varnish manufacturers, makers of dyes and coal-tar products, and the rubber industries are the other large consumers.

The biggest user of sulfuric acid is the fertilizer business. Chemical and explosive manufacturing is second. Petroleum refining consumes about one-

eighth of the available acid, and the iron and steel industries an equal amount.

The Italian production of sulfur three years ago was nearly 500,000 tons. The production since then is not known. In the same year considerably over 2,000,000 tons were produced in the United States. Now the American production is well over 3,000,000 tons a year. Most of it is obtained in Louisiana and Texas. In addition over 600,000 tons of iron, copper and zinc pyrites were produced, from which large quantities of sulfuric acid and free sulfur were obtained.

Hitler will be unable to secure sulfur from any other country in quantities great enough to be of any appreciable value. Spain produces about 25,000 tons a year, Turkey one-eighth of that amount. Japan mines enough for its own use, about 150,000 to 200,000 tons a year in pre-war days. She has none to spare for her fellow barbarians, and could not get it to them in any case. The amount produced in the rest of the world is very slight. Germany can secure a limited amount of pyrites from Axis-controlled countries, but in far less quantities than needed at the present war-spurred pace of consumption.

Science News Letter, June 5, 1943

MEDICINE

Night Blindness Due To Bright Tropical Sun

➤ SHIP collisions and disasters in the air may be caused by the tropical sun

which blinds men not only in the daylight but after dark as well.

A new warning of this danger to our fighting forces is issued by Commander James L. McCartney, Medical Corps, U. S. Naval Reserve, in *War Medicine*.

Sunlight, he points out, may irreversibly damage the retina, the light-sensitive structures and nerve cells lining the back of the eyeball which correspond to the film of a camera. Overstimulation of the eye by bright light for any length of time may cause night blindness.

The special danger, Commander McCartney warns, is that men afflicted with night blindness may see perfectly well during the day and not know that they cannot see as well at night.

"On a number of occasions," he reports, "tragic collisions have resulted because the navigation officer on the bridge was night blind, while he could see perfectly well during the daytime."

"A naval officer who had been overexposed to tropical sunlight did not realize that he had become night blind and as a result directed his ship into three collisions before his disability was discovered."

Night flying, night watch and night sentry duty for persons with night blindness are "out of the question," Commander McCartney declares.

Nystagmus and corneal astigmatism are two other eye disorders which frequently result from continued exposure to intense light. Nystagmus is a condition in which the eyeball involuntarily moves up and down, from side to side, or round and round. Corneal astigmatism is a condition of irregular curvature or refracting power of the transparent structure forming the outer layer of the front part of the eyeball.

Science News Letter, June 5, 1943

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