

"Avoid unnecessary physical contacts with other people, wash hands carefully before eating, and don't put unclean objects in the mouth," warns Dr. Stimson. "We know that many healthy people carry the virus in their intestines and that for some cases, perhaps most,

the port of entry of the infection is the mouth.

"Don't prescribe or take drugs or chemicals that are intended to protect against the disease. As yet we know of none that will do this."

Science News Letter, July 31, 1943

HERPETOLOGY

Cobras Don't Spit

They squirt their venom through fang cavities modified so that the thin jet is thrown straight ahead. Hits can be scored at six to twelve feet.

► **SPITTING COBRAS** do not really spit their venom, in their peculiar brand of chemical warfare; they squirt it through fang cavities modified in such a way that the thin jet of deadly stuff is thrown straight forward. This has been demonstrated in studies by Charles M. Bogert at the American Museum of Natural History.

Only a few species of cobras are "spitters." The fang cavity of the non-spitting kind runs straight down through the fang, to an opening just outside the tip

and slightly above it. This is orthodox snake-fang structure; it functions like a hypodermic needle. A stream of liquid forced through is projected in the direction the fang itself is pointing.

In the fang of a spitting cobra, however, the channel takes a sudden turn as it reaches the discharge orifice, so that a forcibly ejected stream comes out at an angle of approximately 45 degrees to the front surface of the fang. The snake is thereby enabled to hold its fangs in normal position as it menaces

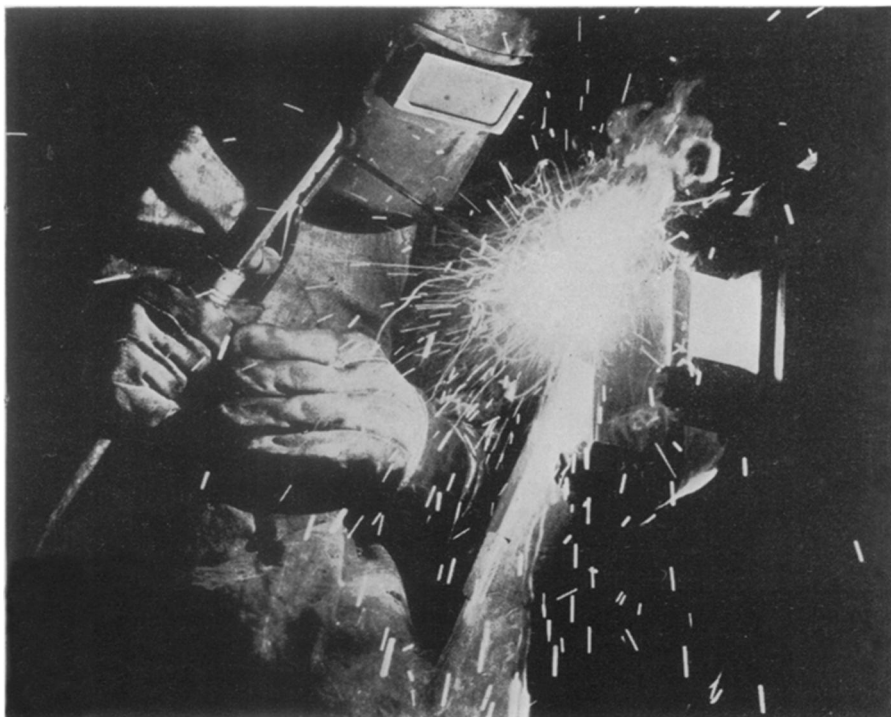
its enemy or prey, and yet throw the venom-jet straight forward.

The eyes seem to be the invariable target, in encounters with spitting cobras, and hits can be scored at ranges variously reported to be as much as six to 12 feet. In human beings, venom produces immediate blindness, followed by severe pain and inflammation lasting several hours. There seems to be no permanent injury.

Mr. Bogert suggests that in addition to its defensive function against such enemies as man and mongoose, the spitting habit may aid in the capture of prey. Dr. David Macht, Baltimore toxicologist, has informed him that the venom can be absorbed through the eyes of smaller animals, producing symptoms of general poisoning.

"Spitter" snakes are to be found in the tropics of both Asia and Africa. Despite their individually dangerous character, they do not constitute a really serious menace to the lives of our soldiers on overseas duty because they are not numerous, and most of them avoid trouble as much as possible. However, it is never wise to bend over a snake you think you have killed; some species have a wicked trick of "playing possum," and suddenly getting in one last lick at their attackers.

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PRODUCTION "V"—The "V" for victory formed by the highlights of the electric arc welder is symbolic of the work achieved by the home front worker. One production bottleneck is shown being broken at the Lincoln Electric Welding Company.

ENGINEERING

Simulated Shipwreck Tests Life Rafts and Equipment

See Front Cover

► **NINE YOUNG MEN** deliberately set themselves adrift in the Gulf of Mexico to test the life rafts and equipment which must serve as the sole protection of other men against the elements in similar expeditions, taken by necessity.

For six days and nights, under varying weather and seas the men drifted, using tarpaulins for sails when the wind favored them, for protection from the sun when it was blisteringly hot, and for covering when the chill of night descended.

The test was under the control of the U. S. Army Air Forces School of Applied Tactics at Orlando, Florida. Among the men making the tests were Capt. George H. Waltz, Maj. M. W. Boynton, Corp. Gilbert Bowman, Sergt. Thomas Chancey and Corp. Aubrey Nelson. They are pictured in an official photograph on the front cover of this week's SCIENCE NEWS LETTER.

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