

ROCKETS AND MISSILES

Lifting Power Can Be Found by New Formula

TWO UNIVERSITY of Virginia chemists have derived a time-saving formula for figuring the lifting power of solid rocket fuels.

Merritt M. Birky and Dr. Loren G. Hepler have been experimenting with perchlorates of potassium, ammonium and lithium, powerful ingredients of solid fuels used in rockets. Using a hand-made instrument so precise that it recorded temperatures to 1/5,000th degree centigrade, they measured the heat given off when these materials dissolved in water.

Their experiments, said Dr. Hepler, "have helped to provide a mathematical short-cut, which will be published, and which could save a lot of time for the engineers who are mixing solid rocket fuels."

Science News Letter, December 26, 1959

Questions

GEOPHYSICS—How are the earth's consistency and its pear shape related? p. 429.

MEDICINE—What connection may there be between the rheumatoid factors and antibodies? p. 427.

PUBLIC HEALTH—What are the suggested methods for storing atomic wastes in glass? p. 426.

Photographs: Cover, Phillips Petroleum Company-National Reactor Testing Station; p. 427, Woods Hole Oceanographic Institution; p. 429, McDonnell Aircraft Corporation; p. 430, General Electric Company; p. 436, Eastman Chemical Products, Inc.

Do You Know

Quartz crystals lacking the uniform high quality that would qualify them for electronics use have potential uses in lapidary work for costume jewelry or as seed material for synthetic crystal production.

U. S. per capita consumption of apples is less than half of what it was 50 years ago.

It is estimated that there are now 1,000,000 Americans, alive today, who have been cured of cancer in the sense that they have not shown evidence of the disease at least five years after diagnosis and treatment.

Leptospirosis can kill young calves within 12 hours after the disease strikes a herd.

Formerly plentiful, the rhinoceros in Malaya is becoming a vanishing breed due to unscrupulous hunters in quest of horns sought for their supposed medicinal value.

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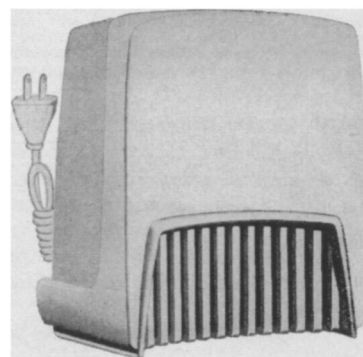
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