



**JEEP POWER**—When the water power in a poverty-stricken Sicilian community failed, the people were desperate because their only means of crushing olives for oil was put out of commission. However, the ever-versatile American jeep proved a top-flight ambassador of good will; soldiers rigged it up to the crushing machine and with its power turned out 88,000 pounds of olive oil.

## PUBLIC HEALTH

## Danger for Heavy Smokers

➤ **HEAVY SMOKERS** are six times more likely to develop complications of the lungs following abdominal operations than non-smokers, reports Dr. H. J. V. Morton, Hillingdon County Hospital, Middlesex. (*Lancet*, March 18.)

In a study of 1,257 cases of abdominal operation, Dr. Morton grouped patients into three categories: 1. smokers (those who took more than 10 cigarettes or one-half ounce tobacco daily), 2. light smokers, and 3. non-smokers.

"Smoking seems definitely to increase the risk of complication causing constitutional disturbance," Dr. Morton contends.

Many smokers, it may be assumed, suffer from chronic inflammation of both trachea and bronchi, he points out. Under normal circumstances, the condition may be without symptoms and often overlooked.

After an abdominal operation, however, "restriction of efficient coughing brings about stagnation of bronchial secretion. The secretion accumulates and becomes infected and purulent and true bronchitis may follow. Where there is little or no post-operative inter-

ference with vital capacity or coughing, this succession of events is probably avoided at the outset."

Post-operative pulmonary complications are more common in men than in women and may be accounted for by man's greater dependence on diaphragmatic breathing, his normal respiration thus being more disturbed after an abdominal operation.

"A greater incidence of chronic infection of the respiratory tract in men associated with outdoor work in all weathers has been suggested," Dr. Morton says. "It has also been suggested that women have a higher immunity because of the hardening they undergo as the result of modern dress."

The striking difference obtained between post-operative lung complications for heavy smokers and light smokers among men as compared with similar figures for women may be attributed to the fact that many women coming into the "light smoker" group hardly smoked at all.

"Habitual pipe-smoking has far less significance than cigarette smoking," Dr. Morton observed.

"When abdominal operations are contemplated, it is advisable for smokers to stop or reduce their smoking as a precaution against pulmonary complications."

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## ENGINEERING

## Army Jeep Salvages Oil Crop in Sicily

➤ **THE ARMY JEEP** has added another page to its record of versatility by turning out 88,000 pounds of olive oil and salvaging a crop of olives for hundreds of families in western Sicily.

The water power needed to turn the huge stone wheels of an olive press on the Zucco estate outside Palermo had failed, and the tenants were faced with the probable loss of their food staple.

The press, on the second floor of the villa, could be reached only by means of a staired hallway. The jeep had climbed stairs before, but the hallway was too narrow.

The squad of engineers which Maj. Louis W. Correll of Spokane, Wash., called in to help simply turned the jeep on its side and carried it up the steps. As soon as it was in its proper place, they improvised a drive belt, made a few adjustments, the wheels rolled, and the olive crop was saved.

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## PUBLIC HEALTH

## Better Community Health Is Aim of Youths' Campaign

➤ **MONDAY, May 1**, boys and girls all over America will be meeting to plan their own campaigns for improving health conditions in their communities. This is a reversal of the Child Health Day activities that have been a part of the American scene since 1928, when Congress by a joint resolution authorized and requested the President of the United States to issue annually a proclamation setting apart May 1 as Child Health Day. In the past, grown-ups have been urged to make May 1 a day for renewing or starting fresh efforts to improve health conditions among children.

Now, however, with a war on, the grown-ups are all very busy and the boys and girls have shown themselves eager to take on as many adult responsibilities as possible. In line with these changed conditions, President Roosevelt in proclaiming Child Health Day this year has invited America's boys and girls

"to use this occasion as a time to gather with parents, teachers, and other citizens, or by themselves, in schools, churches and community centers, and to consider how we can make our home and community life contribute in full measure to the building of buoyant health and valiant spirit in all our boys and girls."

Food, housing, safety, recreation, and such matters of personal hygiene as exercise, sleep and rest are topics suggested by the U. S. Children's Bureau for consideration at the May Day planning forums. The idea, of course, is to decide on one or possibly two such

health problems to be tackled during the coming year, but not to try to take on all the health problems of the community.

"People who run down their own health while trying to help others aren't smart," the Children's Bureau points out in a warning not to attempt too much.

Good advice on which is the biggest health job for boys and girls in your community can be had from the local health department, the local medical society, the parent-teacher association, church organizations and similar groups.

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#### MEDICINE

## Leukemia Conquest Clue

**Fatal malignant disease causing increased number of white blood cells can be prevented in rats by injections of adrenal or pituitary hormone.**

➤ A NEW CLUE that may lead to conquest of leukemia, fatal malignant disease characterized by increased number of white blood cells, has been found in the adrenal glands.

Transplantable lymphatic leukemia can be prevented in rats by injections of the adrenal cortical hormone or the pituitary hormone that stimulates adrenal gland activity, Dr. James B. Murphy and Dr. Ernest Sturm, of the Rockefeller Institute for Medical Research, report. (*Science*, April 14).

Attempts to prevent the disease in humans by injection of adrenal cortical hormone will not be practical, Dr. Murphy said, unless or until some test can be devised for picking out persons with hormone deficiency likely to lead to leukemia.

As to treatment of leukemia, he and

Dr. Sturm state that it would be "entirely unjustifiable" on the basis of the rat studies "to predict that the adrenal hormone would be of value in treating either the transplanted or the spontaneous disease."

Present importance of the studies seems to lie in the fact that they open an entirely new point of view for investigation. Heretofore efforts to control leukemia have been along the lines of attempting to destroy the malignant cells by X-rays or radioactive substances. Now it appears that this malignant disease may be controlled through the endocrine gland system, just as another malignant disease, cancer of the prostate, is apparently proving amenable to control via the endocrine glands.

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#### ASTRONOMY

## January Eclipse Time

➤ WORD has been received at the Harvard Observatory clearing house from astronomers at Lima, Peru, giving more precise observed times for the eclipse of the sun on Jan. 25 than have heretofore been published. These make the actual duration of totality slightly more than 164 seconds, which is about three seconds less than the predicted duration.

Dean Godofredo Gracia of San Marcos University in Lima transmitted the

results of observations by Prof. Alfred Rosenblatt and Juan M. Portocarrero. Their observations of the eclipse were made at the observatory in the Collegio San Jose in Chiclayo, Peru, close to the center of the path of totality and near where several other expeditions had made their headquarters, including the Mexican eclipse expedition headed by Dr. Joaquin Gallo, director of the National Observatory at Tacubaya, Mexico.

An important moment during an eclipse occurs when the moon first touches the sun's disk, making what astronomers call first contact. It is very difficult to determine this time by observation precisely, whereas timing the moment of second contact, when the moon completes its job of covering the sun's brilliant disk, is considerably easier because at second contact the last ray of direct sunlight is hidden by the moon just as if a camera shutter had been closed.

The predicted time for second contact of the Jan. 25 eclipse, according to the calculations of Lima astronomers, was 14 hours 7 minutes 33.6 seconds, universal time. Their observations showed the total phase to begin at 14 hours 7 minutes 34.25 seconds, or slightly later than predicted. Third contact, the end of totality, was predicted for 14 hours 10 minutes 20.9 seconds, but observed at 14 hours 10 minutes 18.53 seconds, or nearly two and a half seconds early. The total observed duration of totality was thus two minutes 44.3 seconds, or some three seconds shorter than the calculated time of two minutes 47.3 seconds.

The position of the observing site used by the Lima astronomers is given as longitude 79 degrees 51 minutes 23.42 seconds west; latitude 6 degrees, 47 minutes, 15.10 seconds south; altitude 28.57 meters.

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#### PSYCHOLOGY

## Tests Show Marihuana Does Not Help

➤ MUSICIANS, especially members of dance orchestras, may think marihuana improves their musical ability, but psychological tests with a synthetic marihuana-like chemical show it does not, Dr. C. Knight Aldrich, U. S. Public Health Service, reports. (*Public Health Reports*, March 31.)

The tests were made with 12 healthy white male patients who volunteered for the experiment. All were serving prison sentences for violation of the Marihuana Tax Act and had used the drug for an average of nine and one-half years. Of the 12, two were professional musicians and two had musical ambitions.

The Seashore tests, played on phonograph records, were used "because they seemed to offer the most carefully standardized tests available of musical capability."

Each man was given the test three times at intervals of one week. The