MEDICINE

Meningitis Conquered

Sulfadiazine is the weapon credited with bringing down the death rate in training camp outbreaks to new low point. Outlook for future good.

➤ THE U. S. Army has meningitis ked almost to a standstill, with further victories in sight, it appears from a report by Col. Henry M. Thomas, Jr., medical consultant, Fourth Service Command. (*Journal, American Medical Association,* Oct. 2)

The World War I death rate for meningitis in the U. S. Army was 39%. This was cut to one-fourth (8.8%) during the early months of last winter's outbreak in the Fourth Service Command and during the last two months of the outbreak the death rate was again cut to one-fourth, or 2.1% in 761 cases, Col. Thomas reports.

"It is safe to prophesy," he states, "that the mortality rate for the remainder of this war will be held to a low level."

Sulfadiazine is the weapon chiefly responsible for the amazingly low death rate. However, the second reduction of the death rate to one-fourth its previous figure was not achieved until medical officers and nurses throughout the Fourth Service Command had been "alerted" to awareness of the various symptoms of meningitis especially in its early stages and the need for immediate adequate treatment.

"It seems probable that all members of the medical corps on duty in the zone of the interior during the past few months," Col. Thomas states, "will continue to be on the watch for cases of meningococcic infection and will be familiar with proper treatment."

Prophylactic treatment with sulfadiazine of meningitis carriers has also been used so successfully in the Army during the past few months that Col. Thomas feels it is safe to prophesy that in the coming years the number of cases can be greatly reduced as well as the death rate from this disease.

Science News Letter, October 9, 1943

CHEMISTRY

Keeps Milk Fresh

Addition of wheat germ oil and edible acids keeps whole milk powder fresh twice as long. Would extend usefulness of supplies for overseas.

➤ WHOLE MILK powder containing minute amounts of wheat germ oil and edible acids will stay fresh about twice as long as untreated milk, research at MacDonald College laboratories, St. Anne de Bellevue, Quebec, shows. If the simple, inexpensive method proves out, it could be employed to extend the usable life of the quantities of dried milk being shipped to war zones from the United States.

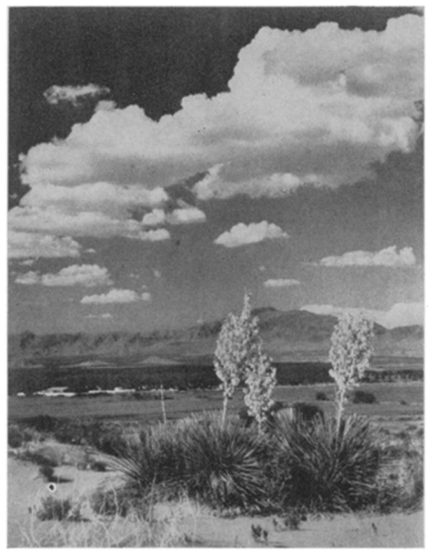
Dried milk is so light as to offer striking military advantages, but its use has always been limited by danger that the butterfat would turn rancid. For this reason, the Canadian Research Council asked Dr. W. D. McFarlane of MacDonald College, McGill University, to study natural food materials which gave promise of delaying rancidity in milk powder. Dr. McFarlane now reports that "very striking results" were obtained by adding wheat germ oil formula to the milk equivalent to 0.1% of the butterfat content. The oil is extracted at low temperatures and combined with minute amounts of edible "hydroxy" acids producing a formula more effective than wheat germ oil alone, which has long been known to improve the keeping quality of less stable fats.

The wheat germ oil formula is simply homogenized into a small amount of skim milk, which in turn is poured into the liquid whole milk to be dried. So slight an amount is used that no change can be detected in the color or taste of the milk powder. The germ oil harmlessly oxidizes instead of the butterfat, delaying rancidity and helping to retain the vitamin A content. Dr. McFarlane found that this doubled the life of milk powder, and even before these findings could be published, the Canadian Navy began to use the formula in milk powder tablets for emergency rations.

The immediate military significance of this discovery stems from the fact that so little wheat germ oil is used that our entire dried milk output could be protected with it from existing supplies of the oil. Besides, no new machinery is needed to mix it with the liquid milk. Dried milk would still be packed for export in vacuum cans, but the wheat germ oil would give added protection. This would be especially valuable after cans are opened, and in warm climates.

United States production of dried milk in 1943 is expected to reach 150 million pounds, breaking all records, emphasizing the importance of keeping qualities.

Dr. P. H. Tracy, authority on milk powder at the University of Illinois, has also been working on the problem, and confirms that "wheat germ oil was found to retard the development of an oxidized flavor in powdered whole milk." Dr. Tracy emphasizes that wheat germ oil



YUCCA—This beautiful scene from our Southwest is part of the photographic exhibit now being shown at the Field Museum of Natural History. The Field Museum, incidentally, recently announced the change of its name to Chicago Museum. This print, one of 150 honored by being chosen for the exhibit, was made by Tom Peterson, of El Paso, Texas.