

red rays instead of the ages-honored oven heat. U. S. patent 2,340,354 has just been granted on this device, to Franklin H. Wells of Hackensack, N. J.

Individual pans containing the dough are slowly carried on an endless chain past batteries of adjustable reflector-equipped lamps of the type already in common use in paint-drying and enamel-baking machines. Since infra-red rays are more penetrating than ordinary heat, baking begins in the heart of the loaf practically as quickly as it does on the surface, and the process proceeds more evenly throughout. Savings of from 20% to 30% over customary baking times are claimed by the inventor. Smoother crust is another advantageous feature, he states.

Rights in the patent have been assigned to the American Machine and Foundry Company.

Science News Letter, February 12, 1944

MILITARY SCIENCE

Mountain Fighting Calls Hooves Back to Service

See Front Cover

➤ WARFARE of the future will be entirely mechanized, all experts prophesied in the mid-'thirties. Everything was to move on wheels or tractor treads; gone forever were the picturesque army mule and the dashing cavalry horse.

But when the imagined future became the grim and stony present, military men began to discover that hooves could still go where not even a jeep could quite make it. In the rugged terrains of Tunisia, Sicily, South Italy, it was found necessary to improvise cavalry for a good deal of patrol work, and to purchase pack animals for getting heavy weapons, ammunition and supplies up to the otherwise inaccessible fighting fronts. Fortunately for us, Sicily has long been one of Europe's chief mule-breeding centers, so that a fairly good supply of animals could be purchased.

The front cover picture of this SCIENCE NEWS LETTER was taken by an Army Signal Corps photographer "somewhere in Italy." The mule in the foreground is carrying one of the most formidable weapons of the "front-line artillery," an 81-millimeter mortar. Evidently mules are mules in any language, to judge from the amount of persuasion it takes to keep these newly acquired allies of ours moving.

Science News Letter, February 12, 1944

MEDICINE

Speedy TB Diagnosis

➤ SPEEDY diagnosis of tuberculosis, within 12 to 24 hours, is possible with a new tuberculin test developed by Dr. H. J. Corper, head of the research department of the National Jewish Hospital in Denver, an announcement from the hospital states.

Use of a transparent adhesive for applying the tuberculin to the skin makes it possible for the physician to watch the

reaction. This transparent adhesive also eliminates the danger of apparent "positive" reactions due to sensitivity to adhesive rather than to tuberculin.

The tuberculin used in the test is described as a pure simple tuberculin called "autolytic." It is uncontaminated by the medium on which the tubercle bacilli are grown and in which all live bacilli are killed by toluene and removed.



The Spark that Lights the Flame of Victory



A pinpoint of fighting metal placed in the arc of the spectrograph writes its own signature on a photographic plate. Inside the instrument, the light from that flame is broken up by a prism as a prism breaks up sunlight. Each element identifies itself by a series of characteristic lines, always the same for the same basic element. It reveals to the spectrographer each constituent, what impurities are present and in what quantities.

Thus spectrography helps in control and inspection. It keeps tough fighting steels tough, helps in development of new fighting metals. Spectrography is used, too, in other fields to speed research and

analysis... chemicals, foodstuffs, vitamins.

Because Bausch & Lomb had long experience with such precision optical equipment, it was ready for quantity production of gunfire control instruments, binoculars and aerial photographic lenses. When the last gun is fired, Bausch & Lomb will devote its enlarged experience to peacetime optical production.

BAUSCH & LOMB
OPTICAL CO. ROCHESTER, N. Y.

ESTABLISHED 1853

AN AMERICAN SCIENTIFIC INSTITUTION PRODUCING OPTICAL GLASS AND INSTRUMENTS FOR MILITARY USE, EDUCATION, RESEARCH, INDUSTRY AND EYESIGHT CORRECTION