

MEDICINE

59 Hospitals And Medical Schools Respond To Call

Chief Object of Organizing Now Is To Prepare Groups Used To Working Together; Limited to Officer Personnel

FIFTY-NINE of the nation's hospitals and medical schools have responded to the War Department's request to organize war hospital units for M-Day.

In all but a few of these institutions the units are now being organized. Formal notification that units will be organized is expected from the rest as soon as board or staff meetings can be held. Commissions in the Medical Corps Reserve of the U. S. Army are being prepared for some 1,500 physicians and surgeons now on the staffs of medical schools and hospitals who will serve as officers of their units when or if M-Day comes.

The 50 hospital units supplied by medical schools and hospitals during the World War were the backbone of our hospital service overseas in 1917 and 1918, Army medical officers state. Remembering the valiant service performed by these units at that time, the Surgeon General about a year ago decided to call on their sponsoring institutions again to prepare for another military emergency.

At the time of the World War, these hospital units were organized through the American Red Cross and equipped themselves. Today they are being organized through the Army which will also equip them. So far as possible, the units will carry their old names. Bellevue Hospital in New York, for example, which organized Base Hospital No. 1, is now organizing the 1st General Hospital.

Base hospitals are now called General Hospitals. M-Day plans call for 32 of these, 17 Evacuation Hospitals and 13 Surgical Hospitals to be organized by medical schools and large hospitals to serve as affiliated units of the medical department of the Army. The total of 62 such hospital units is called for by the Protective Mobilization Plan.

Peacetime organization of the affiliated hospital units is so far limited to officer personnel. Nurses, enlisted men and technicians will be enrolled later, the nurses and technicians probably through the American Red Cross, although insti-

tutions sponsoring the affiliated hospital units will probably be asked to make recommendations for some of these.

Chief object of organizing the officers now is to have ready at the very beginning groups of men used to working together. The efficiency and precision of a surgical team in the operating room has been perfected in most institutions to the point where the surgeon's assistants know so well how he operates that even in emergencies they will put into his outstretched hand the exact knife or forceps or other instruments he needs without a word being spoken.

GENERAL SCIENCE

Scientists And Physicians Listed For Defense

NATIONAL defense censuses of scientists, engineers and physicians are in prospect as a part of the accelerating mobilization of science and research to aid the government's gigantic military program.

Just as England, Canada and other nations listed their technically trained men and women in anticipation of war demands, steps are being taken to survey the available technical brain-power of America.

With the establishment of registers showing just what each scientist, engineer and physician can do and whether he is available for service, the government could bring to bear upon any problem the talents and skill of the best-equipped experts.

Most nearly mobilized is information upon the physicians of the nation. In the files of the American Medical Association at Chicago is information on all qualified physicians, hospitals, etc. By resolution adopted at the AMA convention in New York these facilities are put at the disposal of the nation as a matter of medical preparedness. It is likely that the more than 117,000 AMA physicians

This smooth teamwork will go forward even under the trying conditions of war surgery as a result of the way hospital units are now being organized. Another advantage of organizing units among men used to working together is that men working long hours with furious haste to repair war's grim ravages will be spared the added strain of taking orders from another doctor whose methods, because unfamiliar, may seem all wrong.

Organizing military medical services during peacetime has other angles. To take care of an army of 4,000,000 men, 30,000 doctors will be needed. The 15,000 medical reserve officers are sufficient to take care of immediate medical needs on M-Day, but more would be needed for a long war. To meet this need, without disrupting hospital and medical services behind the lines, and without getting any square pegs into round holes, the Surgeon General has asked the American Medical Association to assist in selecting physicians for war service if needed.

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will receive an inquiry asking them specifically about their availability for duty in an emergency. Many physicians are reserve officers in the medical corps of the Army and some 60 hospitals have organized hospital units that will be ready for service when and if army mobilization takes place.

A nation-wide census of 115,000 engineers and architects skilled in design and supervision of construction is underway by the American Society of Civil Engineers and the American Institute of Architects. Engineering and architectural firms, partnerships and individuals

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in private practise are being listed. A register of architects, engineers, draftsmen, surveyors and specialists will be prepared.

The American Mathematical Society is asking its members to notify its war preparedness committee, of which Dr. Marston Morse of Princeton is chairman, whether they have military connections or feel that they can contribute to military or naval science in a mathematical way.

The new National Defense Research Committee may in the near future undertake a census of scientists, but at present their work is being begun through contact with about 50 major universities and industrial laboratories to which research problems could be assigned.

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PALEONTOLOGY

Find Bones and Footprints Of Spotted Yellow Beast

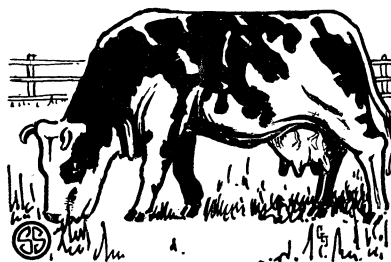
A BROWNISH-YELLOW beast, with black spots, centuries ago leaped down a yawning cavern on a forested hillside in Tennessee—and because of that, a theory of science today is demonstrated.

Two boys, Clarence Hicks and Jack Kyker of Sweetwater, Tenn., in exploring far back in Craighead Caverns, discovered bones and later footprints which were identified by the American Museum of Natural History, New York, as those of an extinct race of jaguars which once roamed North America. Dr. G. G. Simpson, associate curator, went to the caverns to see the footprints and additional bones discovered. He made a cast of the footprints.

"The animal was closely related to the largest jaguars now found in South America," Dr. Simpson said. "The discovery is interesting, scientifically, because it proves a theory that the jaguars wandered down to South America, became extinct in North America and survived in South America. On this trip to the caverns I got more bones of the same species, including a piece of skull bone, with a big upper fang still embedded in the socket.

"I have worked quite a little in South America and have always been interested in proving where these animals came from; they wandered back and forth. This cave is one of the most fascinating places I have been in; it proves an important scientific theory."

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Survival of the Unfit

VERY few of our domesticated animals and plants would survive permanently if turned loose to shift for themselves. Usually the very qualities for which we prize and breed them would be fatal handicaps under conditions of natural competition.

Perhaps the most extreme and obvious case is that of seedless fruits. Fruits, in the wild, exist primarily for the sake of the seeds they contain. Naturalists generally agree that the attractive pulp and juice serve to bribe birds and other animals into acting as unconscious disseminators and propagators. Yet man eliminates the seeds wherever he can, keeping the unnatural trees and shrubs and vines alive by cuttings and grafts.

Something akin to this is done by man with plants which he grows primarily for their seeds, especially the grains. Cultivated corn and wheat are unable to survive for more than a season when chance sows their seeds, as often happens. This is due to the quality of hanging onto the seeds, that has been carefully bred into corn ears and wheat heads. Thus the seeds cannot become naturally scattered and prepared for another season's growth. Desirable for "gathering into barns," this non-shattering quality is the direct opposite of what is needed for natural survival.

We do the same things with our domestic animals. The long-legged, stringy, tough, well-horned wild cattle, that can hold their own against wolves and other enemies, have been changed by centuries of breeding into blocky-bodied, soft-fleshed, short-horned or hornless animals with very little fight in them.

It is the same way with pigs and sheep. The original wild strains were

long-legged, lean-bodied, wily and pugnacious rough-necks, with very little fat on them. They would hardly know their degenerate descendants of modern pastures and pens, and would doubtless despise them if they could see them.

When we breed a plant or an animal for ornament rather than for use we do even greater distortion upon the natural stock. Who would guess, for instance, that the ancestor of a Pomeranian or a Pekinese was either a wolf or the blood-brother of a wolf?

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ENGINEERING

Curves Replace Tedious Computations in Design

A SET of mathematical curves replaces weeks of laborious mathematical computations to allow aviation engineers to tell whether an airplane will "flutter" itself to destruction, W. B. Bergen and Lee Arnold, of the Glenn L. Martin Company of Baltimore told the Institute of Aeronautical Sciences meeting at the California Institute of Technology.

Development of a graphical solution of flutter instability in airplanes is expected to result in safer airplanes and more rapid design. Flutter is a vibration that builds up with increasing force until a wing, aileron or tail flies off and the airplane is lost. Many otherwise unexplained crashes have been traced to flutter.

Three years ago Martin engineers developed a vibration-detecting device that gave warning of dangerous conditions building up in an airplane during flight. The new work just reported will greatly simplify the computation of the critical conditions that warn when dangerous flutter is imminent.

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Butterflies generally have slender bodies, whereas the larger moths are stout.

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