

MEDICINE

Enter Family Doctor

Air surgeon predicts that he will return to the American family scene after the war. Flight surgeons, although specialists, find they need to know patients.

► THE FAMILY doctor is coming back to the American medical scene after the war, Brig. Gen. David N. W. Grant, Air Surgeon, U. S. Army Air Forces, told the American Medical Association at its meeting in Chicago.

Many an American family, it appears, will in the post-war period be taking its measles and sprained ankles and pneumonia and other troubles to doctors who are now flight surgeons.

The reason for this predicted change in the medical picture is that the flight surgeons, now being trained by the thousand, act as physicians to the flying men under their care. Although they are specialists, they have the family physician's intimate knowledge of each patient in his care, and his view of the patient as an individual.

They know, from such signs as a man's starting to smoke more than his usual one pack of cigarettes a day, or taking two drinks instead of one before dinner, that he needs a short rest from flying and its nerve-racking strain, even though the man himself still feels perfectly fit.

This type of care, which is preventive medicine of the highest order, is how the flight surgeons "keep 'em flying."

Keeping them flying, Gen. Grant emphasized, is itself of vast importance to the men's health and morale. If they are not given rests at intervals, they will reach the point where they have to stop flying permanently. No hard-and-fast rules, however, can be followed about when the men should have rest periods. It must be determined for each individual.

Highlights of the Air Forces medical activities in the war, besides keeping its own men fit, as given by Gen. Grant at a press conference:

Complete operating rooms will in the future be glided to the battlefield, so that men wounded during invasion can have life-saving surgical attention right at the clearing station.

Helicopters will operate on a shuttle system to evacuate wounded from field to hospital, transporting in ten minutes casualties who would have had to face a three- or four-hour ambulance ride to

the rear. Such helicopters are being experimented with but none is yet in service.

A complete 25-bed hospital was flown from St. Louis, Mo., to Nome, Alaska, to replace one that burned while Gen. Grant was there a few months ago. Any sized hospital can be shipped by air by using enough planes, Gen. Grant said.

Two tons of sulfanilamide were flown from Seattle, across North America, Africa and India to China, arriving within ten days, for civilian use.

Science News Letter, June 19, 1943

MEDICINE

Army Nurses Toughened Before Leaving for Duty

► ARMY NURSES are toughened up just as soldiers are before leaving for duty in the combat zone. Nurses, the only women privileged to go wherever the American soldier goes, before embarkation receive special training to equip them for the strenuous life and work to follow in the combat zone. They are even taught to detect booby traps.

Each time the soldiers go on maneuvers, Army nurses accompany them, stated Capt. Kathleen Atto, Assistant Superintendent of the Army Nurse Corps.

Some nurses are given special instruction while in training at an Army hospital, Capt. Atto declared. They are taught how to wear gas masks and drilled in putting them on. They undergo a course in chemical warfare where they learn how to detect the chemicals and the treatment of gas casualties.

At the "School of the Soldier," however, the nurses learn individual defense against air and mechanical attack. They practice ambulance loading, and litter drill is given. Demonstrations in insect control are made. The nurses are drilled in the importance of safeguarding military information.

The Army nurse learns regular drill formation and how to move quickly and obey orders. She goes on long marches and gradually acquires the ability to



ROUGHING IT—Members of the Army Nurse Corps are toughened up before being sent for service in the combat area. This nurse, living in a tent in the California desert, is struggling with a pair of G. I. shoes.

carry her own heavy equipment. A class held at Camp McCoy, Wis., in midwinter was appropriately listed as "Operations in Snow and Cold."

Other nurses, on temporary leave of absence from the hospitals, accompany the men on maneuvers. They live on field rations, have an A. P. O. number, and are treated just as though they were out of the country. On these maneuvers the nurses make ingenious substitutes for former "necessities." G. I. helmets have been found to make satisfactory wash basins, and mirrors often go unused. If there is grumbling at all, it is more likely to be about the delay in being sent overseas rather than personal discomforts.

In California some of the nurses are receiving training at a desert center. Here they live in tents and have only the equipment which would probably be available in Africa. Army uniforms and boots are the accepted costume for the nurses, and operations are performed in tents.

Up to the present time, stated Capt. Atto, the need for Army nurses, all of whom have volunteered, has been so great that it has been impossible to give them all this preliminary training. How-

ever, each nurse receives last-minute hardening and additional training at the staging area while awaiting her sailing date.

Science News Letter, June 19, 1943

GEOGRAPHY

Japanese Place Names May Become Familiar Soon

► IF AMERICAN armed forces move southward on Japan from the Aleutians, they may follow the string of islands called the Kuriles, stretching from the Russian Kamchatka peninsula to Japan proper. They are Japanese property, ceded to Japan by Russia in 1875.

The "mainland" islands are at the southern end of the string. Paramoshiri, the northernmost Kurile island of importance, is only a few miles from the extreme southern tip of Kamchatka. Kumashiri is only eight miles from Hokkaido, the second largest of the Japanese main islands. Honshu is the home of Tokyo.

The name of Honshu may be pronounced about as one pleases. One American authority says it is Hon-shú. Another equally reliable authority says it is Hón-shoo. Still another authority says neither syllable is accented; both are equally stressed.

Honshu is sometimes called Hondo, pronounced Hon'-do generally in America, but Hon'-do' by the Japanese. Japanese do not accent any particular syllable in most words. One or more consonants with the following vowel constitutes a syllable in general. Each syllable is pronounced separately; each is of equal importance. Thus Paramoshiri is Pa-ra-mo-shi-ri.

The Kuriles are called Chishima by the Japanese, which means "the myriad islands." It would be a repetition of the word islands to call them the Chishima islands. Kurile, or Kuril, is the Russian name and pronounced as in English with the accent on the first syllable Kú-ril. Chishima is a three-syllable word with the accent on the first syllable when pronounced American style: Chí-she-mah. The "Chi" is like the first three letters in Chicago.

Hokkaido is pronounced American style, Hok-kéi-do. Southwest of Honshu and close to it, are two important islands of the main group, Shikoku and Kyushu, peopled by more than 11,000,000 persons. The first is Shi-kó-ku, the second, Kúshú, with the first "u" as in "cur" and the second as in "rule".

In pronouncing Japanese names, a good general rule is: when in doubt about the accent, omit it; give each

syllable equal stress, and drag the word out monotonously.

Science News Letter, June 19, 1943

MEDICINE

Salvaged Blood Cells

Red cells, by-product of the production of blood plasma, can be used in the treatment of anemia by transfusion. Economic factor important.

► SUCCESSFUL use of red blood cells, salvaged from blood plasma production, for the treatment of anemia is reported by Dr. Howard L. Alt, of Northwestern University Medical School (*Journal of the American Medical Association*, June 12).

After a severe hemorrhage, Dr. Alt points out, ordinarily it takes six weeks or longer for the patient to recover from the anemia following the loss of blood. But by giving daily transfusions of red cells alone from a quart of blood, recovery from the anemia can be speeded up to a period of a few days.

"If cells could be made available to the armed forces," Dr. Alt states, "it would materially hasten the rehabilitation of wounded men who have suffered from hemorrhage."

The chief advantage of transfusions with red cells in salt solution over whole blood is the economic factor. The same quart of blood can be used to help two patients by giving the plasma to one who needs it, say, for shock, and the red cells to another who needs them for anemia. Dr. Alt believes that if red cells become available at a low cost, which is likely to happen if they are used more commonly, they may be used more often to treat anemia than whole blood is at present.

One patient he reported, who had a progressive, refractory anemia complicating chronic leukemia, was kept going for over a year with monthly red cell transfusions. During this period the patient received the red cells from about 26 quarts of blood.

Science News Letter, June 19, 1943

GEOLOGY-ENGINEERING

Oil Left Underground

Nearly two-thirds is not recovered by ordinary methods, director of production for Petroleum Administration for War estimates. A challenge to engineers.

► NEARLY two-thirds of the nation's oil is left underground by ordinary methods of recovery, representing an estimated 70 billion barrel reserve which challenges the ingenuity of petroleum engineers, D. R. Knowlton, director of production for the Petroleum Administration for War, declares in a report to the American Institute of Mining and Metallurgical Engineers.

"The most economical and consequently the best source of additional oil for our war program, aside from exploratory drilling, lies in secondary recovery," he maintains. "It is the engineers' problem to get as much of that oil as economically as possible."

At least three billion barrels of the residue left after the easily obtainable oil is pumped can be recovered even by present

methods, Mr. Knowlton believes, at present or slightly increased price.

Efforts to find new fields at a cost of millions of dollars per year have met with only moderate success. Unless our record of discoveries is substantially better during the next few years than it has been during the last few, our domestically produced oil will be insufficient to meet our demands, Mr. Knowlton warns.

New knowledge about how to keep up pressure in oil reservoirs as pumping continues and how to control rate of flow enables engineers to recover much of the so-called secondary oil while still producing the primary oil. Mr. Knowlton urges that new research projects be undertaken to study these methods under varying reservoir conditions.

Science News Letter, June 19, 1943