NUTRITION

Won't Starve Until Fall

U. S. Public Health Officer tells of health conditions in Germany. Physicians scarce as well as rations. Morale surprisingly high.

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(From September, 1938, till December 11, 1941, Dr. Fishburn was assigned to the U. S. Embassy in Berlin, his duties involving considerable travel in Germany and Europe generally. The following is an account of what he saw of medical and health conditions then and personal experience on the German civilian diet during his internment at Bad Nauheim with the American Embassy group.)

➤ STARVATION was a potent factor in Germany's collapse in 1918, and there has been much speculation in this country as to whether the German economy today is comparable to that of World War I. Before I left Germany in June 1942, I was told by a well known Swiss economist and writer that he considered Germany's situation in October 1941, similar to that in 1916—two years before the collapse.

On the basis of this experience, Germany might expect to keep her civilian population above the starvation level until the autumn of 1943. This opinion was also held by informed Germans who had not been hypnotized by the propaganda machine.

Ration Plan Was Ready

A food rationing system scientifically devised was ready to be placed in operation the day war was declared in 1939. A standard ration was provided, with special consideration and extra allotments for workers in heavy industry, children, and pregnant women. After September 1939, the ration—considered adequate at the beginning—was reduced periodically until, at the time I left Germany, it was definitely inadequate for continued maintenance of health. The weekly ration allotted to the average German was about 11 ounces of meat including the bone (which really meant 7 ounces of edible meat); 7 ounces of fats; 4½ lbs of bread; a little over one

ounce of cheese. Vegetables were not rationed, but they were not available at all times. Fruit and milk were reserved for children and expectant mothers. Coffee, tea, chocolate, and spices were not obtainable.

Beer was available in small quantities, but usually it was served only in the evenings, from eight to ten o'clock. The quality of the beer had been reduced greatly, nevertheless the people readily consumed all available supplies. Other liquors were practically nonexistent for public consumption.

Although the German authorities have tried to assure the people that their wartime diet is adequate, there has been a steady and gradual loss of weight and of the sense of well-being among the entire population, especially among the aged and infirm.

Can't Explain Morale

Since I existed on this diet for six months, I can state that I am at a loss to explain the apparent efficiency of the German workers and the high level of public morale at the time I left the country. No doubt the workers were less efficient and the state of morale not so high as before the war; but it was surprising to foreign observers that German morale had not suffered seriously — if for no other reason than the food shortage.

The 100 young healthy adult males, who were interned with me from December 14, 1941 to May 17, 1942, received slightly better than German rations and most of them performed absolutely no physical labor. In spite of this, they were hungry all the time and their weight-loss varied from 5 to 36 pounds, with an average loss of 10 pounds for the group. It is logical to assume that this average loss of weight would have been greater had the men been less healthy at the outset or had they been performing physical labor. There were no conditions noted in this group that could be called a definite vitamin deficiency although it was felt that certain cases were approaching this condition.

The German people, then, were not

adequately fed but they were not starving. Such was the status of nutrition in Germany as of May 17, 1942. There was every indication that the situation was much worse in all the occupied countries, with the exception of Denmark. Since Europe has never been able to feed herself without imports, the "expected course" is one of rations becoming shorter and shorter.

Since my duties while assigned to the U. S. Embassy in Berlin involved considerable travel in Europe and especially Germany, I was able to see more of Germany's medical and health problems than the casual observer or one less interested in medical subjects.

Germany has a highly organized system of medicine with the closest integration of local and national agencies. Many advanced ideas have been translated into law, especially in the fields of preventive medicine, hygiene, sickness insurance and genetics. For example, the laws provide free treatment of venereal disease cases, isolation of all active cases of pulmonary tuberculosis, compulsory sickness insurance of all workers earning \$1,200 a year or less, and sterilization of all persons suffering from organic mental diseases.

In recent years, the anti-semitic movement and the war have interfered with the smooth functioning of the German medical organization. Before the Nazis came to power, there were a good many Jews in the medical profession in Germany. With the rise of the Nazis, the anti-semitic program, which reached its height in 1938, soon caused a shortage of doctors because of restrictions placed on Jewish physicians and because of their exodus from Germany.

Shortage of Physicians

The war which followed in 1939 greatly intensified this shortage in medical personnel, with the result that the standard of medical care fell sharply, especially the care given to the insured population. The few remaining overworked doctors in private practice naturally attempted to care for the critically ill first, persons in higher income groups second, and the insured lower income groups last. I was told by a heart specialist in one of the "Cure Resorts" so popular in Europe that a high percentage of his patients were doctors, indicating that men left in civilian practice were "cracking up" under the strain. To overcome this shortage in medical

To overcome this shortage in medical personnel, various stratagems have been adopted.

The course in medical education has been shortened by about a year and a half. Enrollment has been increased in the medical schools by running two shifts. Much of the time gained by shortening the medical course has been at the expense of vacation periods, therefore the curriculum has not been curtailed to the extent that the shortened period of training would indicate. However, such subjects as "The Theory of Race Superiority" continued to hold an important place in the medical curriculum at the expense of essential subjects.

Cultists May Practice

Groups comparable to our medical "cultists," who formerly were not recognized as trained in the science of medicine, have been allowed to practice. They have been recognized by the government as medical practitioners with rights similar to the rights of regular physicians. Unquestionably, this practice has lowered medical standards, although not to the extent one might have expected, since medical "cultists," never have been strong in Germany.

Many physicians, who had been made reserve officers in the German army, had been placed on active duty to care for army cases in local hospitals, but were permitted to continue their civilian practice on the side.

Compared with our American hospitals, German institutions even before the war seemed poorly equipped and poorly staffed as regards sub-professional personnel. The return of sick and wounded men from Russia and North Africa threw a tremendous burden upon the hospitals. As a result of the bed shortage, the sanatoria and chronic disease hospitals have been emptied of their tuberculosis and cancer patients and their nonviolent psychotics. These evacuated patients have been dumped back into the civilian communities and required to work in the war industries, if able to perform any worthwhile work.

A great number of hotels and other similar structures easily adapted to the care of the sick have been taken over by the German government and converted into hospitals and convalescent homes. Buildings chosen for conversion have been located, preferably, in areas away from the war industries and where there would be less danger from air raids.

The epidemics which usually accompany war, and which have been expected in Germany, had not made their appearance up to May 1942. During the early months of the war, when air raid shelters



NAVY GOGGLES—Polarizing lenses filter out reflected glare and sunburn rays to conserve and sharpen the eyesight of American sailors. A control button rotates the lenses to adjust the amount of light admitted as shown in the photograph.

were poorly heated and poorly equipped, an increase in respiratory diseases was noted. After the Russian campaign was well under way, scattered cases of typhus fever among prisoners and soldiers on leave from the front caused concern, but typhus had not reached epidemic proportions when I left Germany.

Little could be learned about reserve supplies of essential medical and surgical materials for the German armed forces, but the supply available to civilian practice had passed the stage of scarcity and reached the stage of inadequacy. Such imported items as iodine, quinine, castor oil, and petroleum products, available only in limited quantities before the war, were shortly thereafter nonexistent in civilian practice. Ointments were being compounded with a non-fatty base and, on the whole, had little clinical value. There was a scarcity of practically every drug in common use, and these drugs—especially the narcotics, sedatives, and cathartics—were available only in small quantities.

Most surgical dressings consisted of a cellulose material resembling our wellknown "facial tissues," with one layer of gauze as an outside covering to hold the bandage in place. Cotton was very scarce and adhesive tape was being fabricated of paper. A limited supply of surgical instruments was obtainable in large cities, but their manufacture was discontinued, except for items in everyday use, such as hypodermic syringes. The quality and workmanship of these were very poor. As a result, German pharmacists were apologetic for their inability to supply a doctor, but rather than admit a shortage of products, they placed all the blame on the transport system.

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RADIO

Radio Transmitters Help To Fight the War at Sea

See Front Cover

➤ ON THE COVER of this week's Science News Letter are shown long rows of radio transmitters for the Navy.

Many ships have not one but a number of transmitters and receivers of various frequencies and power as well as portable radio equipment and also equipment for detecting ships and planes. These are being built by the General Electric Company.

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The United States normally uses 500 billion *matches* a year, consuming 500 tons of steel for book-match staples alone.