

## MEDICINE

## Fed by Vein for 8 Weeks

The patient was able to undergo a major surgical operation. Was given salt and sugar solution, enzymic digest of casein, and vitamins C, B and K.

► THE CASE of a patient who was fed entirely by vein for eight weeks, taking nothing by mouth except an occasional glass of water, is reported by Drs. Alexander Brunschwig and Robert R. Bigelow and Miss Sabra Nichols, of the University of Chicago Department of Surgery, in the *Journal of the American Medical Association* (Oct. 6).

The patient's condition was "fair to good" during this long period of feeding by vein. After 46 days of it he was able to undergo a major surgical operation. The scientists believe he would not have been able to remain in as good condition and withstand the operation if he had not been benefiting from the vein feeding.

The daily diet injected into his veins consisted essentially of about three pints of salt and sugar solution and two pints of fluid containing sugar and an enzymic digest of casein to supply protein. Some-

times he was given a gelatin solution. Vitamins C, B, and K were given at intervals by hypodermic injection. He was also given five blood transfusions.

The reason for feeding the patient by vein instead of mouth was the development, following removal of a cyst on the kidney, of a large fistula high in the small intestine. The experience in this case, the scientists state, suggests that similar conditions may be treated by withholding all food by mouth and feeding by vein. Often in such cases the discharges from the fistulas or openings digest the wound edges, thus preventing healing, and also depleting the patient's condition because of loss of partially digested food. If the patient can be kept nourished without food going into his stomach and intestinal tract, these complications are avoided or reduced and the wound heals to the stage where it can be closed by surgery.

*Science News Letter, October 13, 1945*

## GEOGRAPHY

## Textbooks Need Rewriting

Geographies will have to devote more space to Asia and the Pacific islands. Maps will have to be changed to show new national boundaries.

► GEOGRAPHY textbooks for American schools now need rewriting, with more space devoted to Asia and the Pacific islands, because political and economic developments which will have a direct bearing on America may be expected in that area. China has the population and the natural resources to become to Asia what the United States is to the Western Hemisphere; Russia becomes a Pacific naval power; an independent Korea will be to some extent an American responsibility; Japan may have to be under American control for years, and many Pacific islands will probably become permanent possessions of the United States.

Of course, maps will have to be changed to show the new national boundaries, in Europe as well as Asia, and the right names will have to be given. Manchukuo, so called by the Japs, will

be Manchuria again, and Chosen will be Korea once more, the name the Koreans prefer. Many other Japanese names will be discarded in favor of original names, but new names and new national boundaries are not the principal reasons for new American school geographies. The real reasons are strategic, social, cultural, economic and political.

With aircraft, radio and fast ocean vessels, personal contact has broken down former barriers between the East and the West, and America can now expect, as one result of the war, to play an important part in Asiatic development. As a preparation, American youth needs accurate, reliable information relative to the peoples of Asia and the Pacific islands, their customs, culture, economics, and natural resources, and the physical conditions of the regions in which they live.

The Near East, in the future, may produce, under American and English leadership, much of the world's supply of oil and petroleum products; India is setting out on a program in training scientists, following American procedures, to develop India's industries and agriculture and to provide better health for her people; and China, in gratitude to America for her assistance during the war, will look to us for help in becoming a real democracy and a truly great industrial and agricultural nation.

From a strategic standpoint, American youth needs a knowledge of Asia and the Pacific. Japan will require watching, and perhaps military control, for many years. The Soviet Union, now in possession of the Kuriles, Sakhalin island and excellent ice-free ports and naval bases on the mainland coast, assumes a new importance in the Pacific area. China may, and probably should, become a naval power. These factors alone are sufficient reasons for more complete geography courses in American schools.

*Science News Letter, October 13, 1945*

## RADIO—AERONAUTICS

## New System Eliminates Static in Planes

► STATIC, the bane of aircraft communication, is combated with an artificial drizzle of electrically charged droplets, in a system on which U. S. patent 2,386,084 has been issued to Ralph C. Ayres of Kansas City, assignor to Transcontinental and Western Air, Inc.

To drain away the static charges, Mr. Ayres first provides a kind of lightning-rod system in reverse: three or more long rods or trailing wires from wing-tips and tail, together with a larger number of short metallic fingers; all connected together but all insulated from the plane itself. This system is calculated to pick up an electric charge from the air directly to the rear of trailing edges.

Curved over towards these finger-like projections are nozzles conveying a liquid from a reservoir within the plane. They are filled with wicks, and so adjusted that droplets of the liquid can be released in controlled small quantities. This liquid of course carries a charge of the same sign as that of the plane itself, while the trailing fingers and rods are oppositely charged. Therefore each droplet carries away with it a small fraction of the plane's static charge, which is neutralized without fuss or sputter when the droplet is attracted to the trailing metallic system.

*Science News Letter, October 13, 1945*