

Already there is some solid evidence from Manchester that patients are not only getting better care under the new plan, but are experiencing a briefer hospital stay at less cost to them and to the hospital, Milton Golin, assistant to the editor, reported in the *Journal of the American Medical Association*.

Reorganization Plan

A reorganization plan has been worked out by Dr. Aims C. McGuinness, special assistant to the Secretary for Health and Medical Affairs, Department of Health, Education, and Welfare. It consists of five units. They are:

Intensive care—for a patient with a severe condition who needs constant nursing attention with lifesaving devices at hand.

Intermediate care—for the patient who does not need intensive treatment, but must remain in bed.

Self-care—for the patient with a minor ailment or one who has nearly recovered from a serious one. This patient is able to leave his bed for a bath or a walk to the hospital cafeteria.

Long-term care—for the patient who is aged or who has a lingering ailment which requires many weeks of hospitalization.

Home care—for the patient who comes to the hospital for quick treatment and can be sent home almost immediately.

This plan is specifically designed to eliminate such problems as the overly elaborate hospital where some patients come in only for a check-up or diagnosis.

Now, the average nursing unit consists of one or two seriously ill patients mixed with a few who need moderate care, plus some long-term patients and one or two who need almost no attention. The new plan will eliminate such imbalance.

Even the hospital staff itself has been known to be so overburdened with extra duties that the trained and professional help was bogged down with time-consuming duties. Such a case was that of the nurses of a Tennessee hospital.

It was discovered that the head nurses were doing so much clerical work that they had little time to supervise the care of the patients.

Better Care for Less

Today, about one-third of the population, more than 50,000,000 people, have no hospital insurance whatsoever. One of the major aims of this plan is to reduce the cost of the average hospital stay and eliminate the needless expenditure on equipment. More and better shortcuts resulting in greater efficiency are on the agenda for the future.

Certainly the hospital of the future has great potential. It may not be too long before these revolutionary ideas are in practice throughout the nation.

Science News Letter, July 5, 1958

Even if all forest land in the U. S. capable of growing commercial crops of trees is put fully to work, this country may have difficulty in meeting its future timber needs.

GENERAL SCIENCE

Soviet Elects U.S. Scientists

➤ TWO RUSSIAN scientists are members of the United States National Academy of Sciences and have been for more than a decade.

On June 21 the Soviet Academy of Sciences in Moscow announced Dr. Detlev W. Bronk, president of the U. S. National Academy of Sciences, and Dr. Linus C. Pauling of the California Institute of Technology had been awarded full membership in the Russian Academy.

The two Russians, who are foreign associates of the American Academy, are:

Dr. Peter L. Kapitsa, a world-famous physicist specializing in low temperature studies and credited with master-minding the Russian sputnik successes. Dr. Kapitsa, who refused to have anything to do with the Soviet atom bomb effort and was punished accordingly, was weaned away from England's Cambridge University in 1934. He was elected to the National Academy of Sciences in 1946.

Dr. Paul Alexandroff, a mathematician at the Mathematical Institute of the Russian Academy of Sciences. Dr. Alexandroff who was elected to the National Academy of Sciences in 1947, ironically, was not elected to the Soviet Academy until 1953.

Foreign associates of the National Acad-

emy of Sciences have the privilege of attending meetings and of reading and communicating papers to the Academy. They are also entitled to receive the papers of the Academy. They cannot, however, take part in the Academy's business nor are they subject to its assessments.

Dr. Bronk expects to meet his Russian counterpart, Alexander Nesmeyanov, sometime this summer when he will travel to the Soviet Union to discuss the exchange of scientists between the two countries. Under an agreement made with former Russian ambassador Zaroubin it was specified that the heads of the Academies of both nations would meet in Moscow to discuss future exchanges.

Curiously, the first American to be honored by the Russians with election to their scientific society was Benjamin Franklin, who in 1789 was made a member of the Imperial Academy of Sciences of St. Petersburg.

The U. S. National Academy of Sciences is a private non-profit corporation established by an Act of Congress, approved by President Lincoln March 3, 1863, to further science and advise the Federal Government, upon request, in scientific and technical matters.

Science News Letter, July 5, 1958

MEDICINE

Device "Sees" Behind Eye

➤ AN ULTRASONIC technique now makes it possible to examine areas of the eye formerly too difficult to reach.

Physicians had had no instruments for examining the areas behind the eye and so could only surmise what disease processes might be taking place in these areas.

But now, with the ultrasonic technique, a cross sectional view of the eye and the areas behind the eye may be obtained, even when the tissues are totally opaque to light, because the "seeing" is accomplished by high frequency sound waves instead of by light or X-ray, an ophthalmologist reported at the American Medical Association meeting in San Francisco.

The ultrasonic device operates on a sonar principle. A burst of high frequency sound is transmitted. When the sound waves strike an object in their path, a return echo is set up. The ultrasonic echo is picked up by a special microphone, capable of responding to high frequencies, which converts the sound into electrical energy.

The electrical energy is converted into light in a manner similar to the operation of a television receiver.

To obtain an over-all view of the eye, the transmitter and receiver are moved in a sweeping motion over the eye. Echoes reflect from different portions of the eye to a radar receiver. The radar receiver then displays the interior of the eye and the orbit, Dr. Gilbert Baum of the Veterans

Administration hospital in the Bronx, N. Y., and the department of ophthalmology of New York University Post Graduate Medical School, explained.

Diseases of the eye that formerly were beyond the range of known instruments but have now been "seen" included: Tumors obscured by cataract, certain types of intraocular foreign bodies that were invisible to X-ray and a detached retina in an eye opaque to light because of a hemorrhage in the back of the eye, Dr. Baum said.

He was assisted in the development of the instrument by Ivan Greenwood, physicist for Avionics Division of General Precision Laboratories of Pleasantville, N. Y.

Science News Letter, July 5, 1958

MEDICINE

Cholesterol Unreduced By Safflower Oil

➤ ADDING unsaturated oil (safflower oil) to a normal diet does not reduce the level of cholesterol in the blood, tests on 24 young men have shown. Dr. Irving S. Wright, Dr. Richard Perkins and Miss Barbara Gatje, New York Hospital Cornell Medical Center, did the study reported to the New York Heart Association because many researchers have felt that lowering this level can prevent or slow down the development of atherosclerosis.

Science News Letter, July 5, 1958