

the U. S. National Institutes of Health. The old method was to store it in pliofilm. With the new method it is stored in a liquid made of balanced amounts of salt and blood plasma with penicillin and streptomycin added to prevent growth of germs. This will keep at icebox temperatures for as long as 187 days. Plioilm-stored skin kept at icebox temperatures only 21 to 28 days.

Latest advance reported in human tissue bankkeeping applies a cathode ray food sterilization method to sterilization of arteries for grafting. If the tissue is frozen it will not be damaged by the high voltage rays that kill the germs.

Though you may walk on freeze-dried shin bone, see through the cornea of an-

other's eye, and have your blood run through a piece of donated artery stitched to your own while a mechanical heart and lung kept you alive on the operating table, the chances of your ever thinking with a brain replacement seem very slim. Mechanical brains, so-called, have been made and are in operation in countless laboratories and offices now. But they remain purely mechanical aids, computing machines that speedily perform numerical calculations. The fragile cells and complex fluids that make up man's brain may always defy the attempts of the best human minds to duplicate or transfer them.

Science News Letter, October 20, 1951

RADIO

Outbursts of Solar Noise

When solar noise outburst is picked up with radio telescope, checking shows, almost without exception, that a solar flare occurred at the same time.

► "WHEN AN outburst of solar noise is picked up with a radio telescope, almost without exception we find upon checking back with observatories that a solar flare occurred at the same time as the radio outburst," Dr. J. P. Hagen of the Naval Research Laboratory told members of the International Scientific Radio Union and the Institute of Radio Engineers meeting at Cornell University in Ithaca, N. Y.

The Laboratory's two-foot basket-shaped reflector was used for the observations. This radio telescope trapped waves about a third of an inch long, much longer than the waves of visible light which you see or photograph, but much shorter than the radio frequency to which you are accustomed.

A radio outburst is a tremendous increase in the amount of radio radiation the sun is putting out for a short period of time, for a few minutes up to 20 minutes. The outburst Dr. Hagen reported occurred at the shortest wavelength at which such radio outbursts have been detected.

Another report on the correlation between what can be seen and what is heard with a saucer-shaped radio telescope was given by Dr. Helen W. Dodson of the McMath-Hulbert Observatory of the University of Michigan and Leif Owren of Cornell University's School of Electrical Engineering, on leave from the Institute of Theoretical Astrophysics, University of Oslo. Their work was with radio waves of greater length than those trapped at the Naval Research Laboratory.

When there is a flare on the sun and a small region on the sun's disk shows an intense brightening, the amount of solar noise picked up with the Cornell radio telescope at a frequency of 200 megacycles

frequently is also greatly increased, Dr. Dodson stated.

"Not only does the outburst of solar noise occur simultaneously with the visual and photographic brightening of the flare, but the location on the sun of the source of the radio outburst agrees with the observed position of the flare," she reported.

Studying 14 periods during the past year or so when there was increased burst activity on the radio records, Dr. Dodson and Mr. Owren found that the location on the sun of the source of the radio bursts agreed well with the position of solar regions observed and photographed as active at the McMath-Hulbert Observatory.

In several cases the burst source was observed on successive days and found to move westward across the sun's disk at the usual rate of rotation, they found. Thus the active regions that even last for weeks in the neighborhood of certain spots can be heard at 200 megacycles as well as the more intense but shortlived solar flares, Dr. Dodson pointed out.

Radio telescopes today are not perfected to the point where they can pinpoint the source of 200-megacycle "noise," Dr. Dodson noted. But if the bursts or increased base level originate in small, localized areas on the sun, it is possible to establish this fact by use of the interferometer.

On the Cornell radio telescope Mr. Owren used two broadside antennas placed with their centers 51 wavelengths apart on an east-west line. This interferometer not only showed that the increased radio noise came from small regions on the sun, but also indicated the strip of the solar disk within which the radio source was located.

Science News Letter, October 20, 1951

An Important Event in
American Scientific
Publishing

Color Atlas of Pathology

Prepared under the auspices of
the U. S. Naval Medical School
of the National Naval Medical
Center, Bethesda, Maryland

Long-awaited, this unique volume is the culmination of over six years of work by the U. S. Naval Medical School on a project designed to provide medicine and its allied professions with an authoritative atlas for the interpretation of gross and microscopic findings.

The subjects covered include hematology, spleen and thymus, lymph nodes and tonsils, respiratory system, liver, oral cavity, gastro-intestinal tract, heart and blood vessels, kidney and urinary tract, skeletal system. In every case, in the descriptive text opposite each color illustration, the clinical findings are co-ordinated with the gross and microscopic findings. An examination of COLOR ATLAS OF PATHOLOGY will reveal its magnitude and magnificence.

546 Pages. Illustrated with 1,053 figures
in color on 365 plates. \$20.00



J. B. LIPPINCOTT COMPANY
East Washington Square, Philadelphia 5, Pa.

Please enter my order for

copies, COLOR ATLAS OF PATHOLOGY, \$20.00

Name _____

Street _____

City, Zone, State _____

Charge my account Cash enclosed