



BLOOD FLOW MEASURED—Scientists at the University of Wisconsin have developed a new method for determining changes in flow of blood through blood vessels using an exposure meter that converts light into electrical currents. Dr. Paul Settlage (right), anatomy professor, is shown studying the effect of drugs on the brain of a monkey.

PSYCHOLOGY

"Unconscious" Doubted

► DOUBT WAS thrown on Freud's conception of the "unconscious" or Jastrow's "subconscious" by experiments reported before the American Psychological Association meeting in New York.

In the past, such concepts have been supported by experiments that seemed to indicate that individuals can be affected by or act on signals so weak they are not aware they have observed them. This was interpreted as a kind of unconscious perception.

However, Dr. Israel Goldiamond of the University of Chicago told the psychologists that this is not unconscious perception at all. Instead, it is a kind of illusion due to the fact that the individuals studied were required to give a flat yes or no answer to the question of whether they had observed the signal.

When the individuals are directed to indicate on a 0-to-7 scale whether a faint triangle flashed on a screen could not be seen at all, was possibly there, faintly visible, and so on up to clearly visible, then there were no signals that could be acted upon and yet were too faint to be reported seen.

When the individuals were asked "Did you, or did you not see a figure?" the number answering yes was equivalent to the number giving 7, 6, 5, and 4 on the 0-7 scale plus half those answering with a 3.

In other words, Dr. Goldiamond concludes, if a witness is forced to give a yes

or no answer to a question as to whether or not he saw or heard something, he sets up for himself certain standards of certainty or clearness of perception.

If the perception is clearer or stronger than this standard, he answers yes. If it is fainter or more dubious, he answers no. Yet he may be able to point correctly to the screen on which the figure was flashed.

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GEOLOGY

Divert River for Australian Uranium

► A RIVER is being diverted from an Australian uranium field so that it can be brought into full production.

The river, the East Finnis, cuts right across the open cut at White's mine, Rum Jungle, Northern Territory. A new channel is being dug for it by a team of workmen using the largest earth-moving equipment ever seen in the Northern Territory.

A plant to treat uranium ore was opened by Australia's Prime Minister Robert Gordon Menzies at Darwin on Sept. 17.

The discoverer of the Rum Jungle uranium field, Jack White, who received \$60,000 for the discovery, has gone prospecting again for uranium, this time for a mining company.

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OPHTHALMOLOGY

Sun's Eclipse Gives Clue To Sight Restoration

► PATIENTS WHOSE eyesight is threatened by tears or holes in the retina can be helped by treatment with intense light, Dr. G. Meyer-Schwickerath of Bonn, Germany, reported at the International Congress of Ophthalmology meeting in New York.

An eclipse of the sun in 1945 gave the German eye specialist the clue to this treatment.

After observing the eyes of several persons who had looked with their naked eyes at the eclipse, he wondered whether the burning process, which causes the tissues to coagulate, could be used under controlled conditions to mend tissues torn as a result of disease or injury.

He began experiments with artificial light, but found that although the procedure was feasible, it took too long. Then he turned to sunlight and devised an apparatus which again was successful, but could be used only in favorable weather and seasons.

A special arc lamp which, if briefly overcharged, exceeded the intensity of the sun finally solved the problem, Dr. Meyer-Schwickerath reported.

The treatment is of no value in severe cases of retinal detachment, he emphasized. However, it can be used if the tear has not gone too far and for mending small holes that might otherwise develop into serious detachments. It has also been applied as a preventive measure to tissue that appeared to be degenerating and could be expected to break down later.

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MEDICINE

X-Rays Give Only Sign Of Peptic Ulcer Healing

► THE STOMACH ulcer patient may be relieved when the pain and other symptoms of his ulcer improve, but this improvement does not necessarily mean the ulcer is healing.

"The only evidence we have of ulcer healing is given by the X-ray and not by the symptomatic improvement of the patient," Dr. Benjamin N. Wade of Portland, Ore., said at the International College of Surgeons meeting in Washington.

Ulcers may be "silent," or symptomless, in 15% to 25% of the cases, he said. Nearly all rapidly become symptomless under proper treatment, but ulcer activity often persists during periods of no symptoms.

From 10% to 20% of gastric ulcers become malignant, or cancerous, he reported. Therefore, all such lesions should be regarded with suspicion until they are proved benign.

Secondary anemia in a patient sometimes may be traced to a silent, slow-bleeding ulcer, he said. Unexplained blood in a stool may lead to the finding of an ulcer.

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