

PHYSIOLOGY

Condition of Brain Jelly Said to be Cause of Insanity

Theory Holds That Thick and Thin Brain Colloid Cause Two Types of Madness That Can be Treated With Drugs

WHETHER you are sane or crazy depends on how solid your brain jelly is. If it is too thick, you will have one type of madness; if it is too thin you will be afflicted with a different kind. "Thin-brained" insanity can be treated with drugs that make the brain jelly thicker, such as coffee or alcohol. "Thick-brained" insanity will yield to drugs with the opposite effect, such as bromides.

That is, in very much simplified language, the theory of insanity and its possible treatment presented before the National Academy of Sciences in Washington this week by Prof. Wilder D. Bancroft of Cornell University and Dr. G. Holmes Richter, National Research Council fellow in chemistry.

In more scientific terms, the living portion of the brain and nerves, the physical substratum of mental and nervous effort, is a colloid. Familiar household examples of colloids are jellies, the white of eggs, mayonnaise dressing. The family resemblance of these to brain-stuff will be recognized by any one who has ever handled calves' brains from the butcher shop.

Proper Drugs Reverse Process

The theory of Prof. Bancroft and Dr. Richter is that the colloids of the sane brain are at a certain state of coagulation, or "thickness." Anything that tends to make them more coagulated brings on irritability, then insanity, then sleep or insensibility, finally death. This fatal chain can be combated by the use of drugs that reverse the coagulating process. Anything that tends to make the brain colloids more disperse, or "thinner," also brings on insanity, but of a different type, and may result in death. Patients suffering from the latter type of disorder can be benefited by treatment with coagulating drugs, which include mild ones like tea and coffee as well as more potent things like morphine, cocaine, atropine and hashish.

"Of course treatments of this sort will not restore brain tissue which has been eaten away by syphilis or anything of

that sort," Prof. Bancroft says, "but they will enable the physician to get the coagulated tissue back into a more nearly normal state.

"Over-doses of a dispersing agent should give a normal person a dispersion type of insanity, while over-doses of a coagulating agent should give the coagulation type of insanity."

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ASTRONOMY-PHYSICS

Atoms Combine in Sun's Atmosphere

NOT ALL chemical compounds break up in the intense heat of the sun's atmosphere, Prof. Henry Norris Russell of Princeton University told the National Academy of Sciences in Washington this week.

It was formerly supposed that no chemical molecules could form in the sun. Fourteen different compounds have now been discovered there, six in

the photosphere or outer layer and eight more above the darker sunspots.

Hydrogen and oxygen occur most frequently in these compounds, hydrogen being the most abundant constituent of star atmospheres. As the behavior of the substances is well known on the earth the extent of their dissociation in the sun and stars can be calculated with some accuracy. The results are in good agreement with observation.

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PHOTOGRAPHY

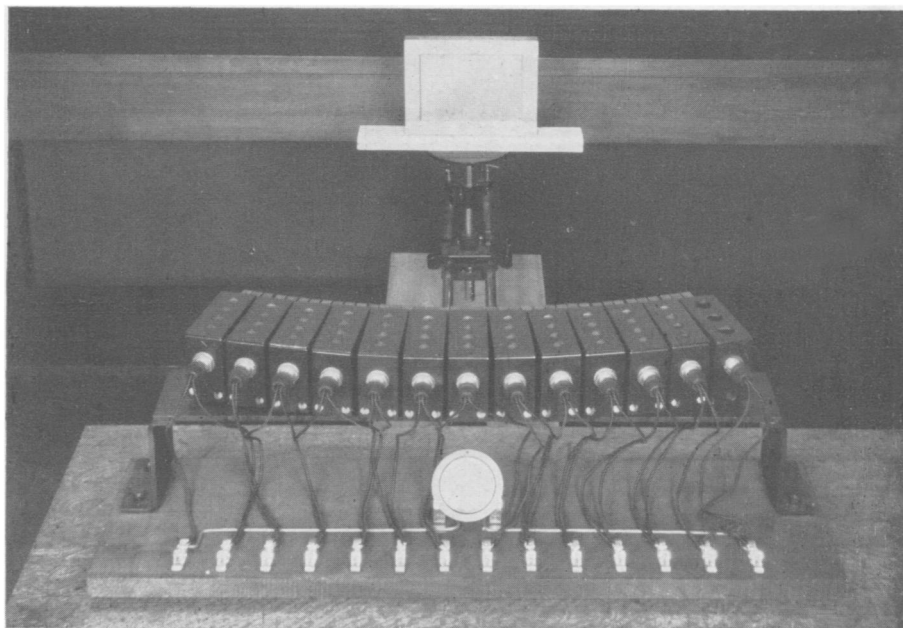
300 Projectors Needed To Show Depth Pictures

PICTURES projected on a screen made of tiny glass rods give a strong illusion of depth or relief without the use of spectacles or rotating disks before the eyes of the observer, as has been necessary in previous inventions.

This model pictured here was made by the inventor, Dr. Herbert E. Ives of the Bell Telephone Laboratories. It throws pictures made by 13 different cameras on the specially constructed screen. Rods or prisms of glass, one hundredth of an inch in diameter, or similar surfaces of celluloid, run up and down the surface of the screen.

The method is not yet ready for moving picture use as a full size screen would require a battery of 300 cameras to take the pictures and 300 projectors in the auditorium.

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MODEL PROJECTORS OF PICTURES IN RELIEF

The thirteen projectors described in the accompanying article are circled in front of the screen upon which the picture is thrown.