

MEDICINE

Crossed Eyes Can Lead To Juvenile Delinquency

➤ **CROSSED** eyes can lead to juvenile delinquency, truancy and eventually to criminal acts, Dr. Elbyrne G. Gill, director of the Gill Clinic, Roanoke, Va., told the regional meeting of the International College of Surgeons in White Sulphur Springs, W. Va.

"A child with crossed eyes will drop out of school because he is made the object of jokes by his fellow schoolmates. He develops an inferiority complex, a psychic trauma," Dr. Gill said.

Crossed eyes usually come on gradually and are rarely noticed before a child is 18 months old. They become more noticeable after the child is four or five years old.

Many parents are advised by friends not to do anything about crossed eyes as the child will outgrow the condition.

"This is a great mistake," he warned. "The only thing we ever outgrow is our clothes."

The earlier the eyes are straightened, the better, he added, saying that treatment should be started as soon as the deformity is apparent, regardless of age.

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PSYCHOLOGY

Why Brain Surgery Relieves Drug Addicts

➤ **WHEN** drug addiction has its origin in intolerable pain, the synthetic drugs usually utilized to relieve the distressing withdrawal symptoms are ineffective. In this case, brain surgery has been found effective.

The operation known as lobotomy, cutting of the connections between the frontal lobes and other parts of the brain, relieves not only the withdrawal symptoms but also the intolerable pain.

A theory to account for why the surgery is effective in this way is reported in the *Psychological Bulletin* (Jan.) by Dr. James A. Spingarn of the Naval Medical Field Research Laboratory, Camp Lejeune, N. C.

Drug addiction, and also withdrawal symptoms, have two aspects, he points out. In addition to the physiological component (the body's demand for the drug), there is also a psychological component, or craving. Lobotomy immediately relieves the psychological component of drug addiction, but it does not affect the physiological aspect unless withdrawal of the drug is delayed for something like a week after the operation.

A similar dichotomy is observed in connection with pain and the effects of the brain operation in relieving it. The complaining of patients usually stops after the brain operation. And yet, upon questioning, nearly all admit that the pain is still present, unabated, in spite of the fact that they are able for the most part to ignore it.

After brain surgery, therefore, the physio-

logical pain remains, but the psychological interpretation of it as "intolerable" is removed.

To explain the action, Dr. Spingarn draws on an old conception, a defense mechanism known to psychologists as "denial."

Some mental patients are euphoric, or "high," because they deny the obvious and very real causes for anxiety in their lives.

In "brain damage," Dr. Spingarn explains, "whether it is caused by morphine addiction, electric shock, or lobotomy, denial is exaggerated and may, in fact, become the sole psychological crutch in persons so disposed."

To the extent that drugs or surgery can induce either temporary or permanent brain damage, they may substitute for one another in aiding the use of denial of whatever physiological or psychological stress may be present.

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BIOCHEMISTRY

Sulfa-like Drugs Promise Diabetic Relief From Shots

➤ **THE SULFONYLUREA** DRUGS that promise to replace diabetic insulin shots with a pill for some sufferers are stimulating a wave of new diabetes research.

The latest results of human and animal research on the sulfa-like compounds that can lower the level of sugar in the blood are being shared by a group of world experts in diabetes meeting in New York for a conference on the drugs sponsored by the New York Academy of Sciences.

The development of insulin in 1921 gave diabetics a successful treatment for their disease, but the insulin always has to be taken by injection. The search for a pill that could replace these regular injections has been going on since then, but until now there has been no sure substitute. Pills of insulin itself have failed because the substance is destroyed by gastric juices if taken by mouth.

The newest development is a chemical called tolbutamide and trade-named Orinase. It is a chemical relative of the sulfa drugs, but unlike them it does not kill bacteria or produce the usual sulfa side reactions.

"The sulfonylureas are under clinical and laboratory investigation for their efficacy in the control of diabetes and depending upon the results achieved will be considered for general use," Dr. Rachmiel Levine, Michael Reese Hospital, Chicago, told the conference.

Present evidence bears out his theory that the new compounds act by stimulating the body's production of insulin in the pancreas, Dr. A. L. Loubatieres, Institut de Biologie, Montpellier, France, reported.

Dr. Loubatieres was the first scientist to recognize the similarity of action between a sulfa drug known as 2254 RP and insulin back in 1942.

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IN SCIEN

PSYCHIATRY

"Patient Governments" Of Mentally Ill Effective

➤ **"PATIENT GOVERNMENTS"** are proving useful in the treatment of mental illness in 30 Veterans Administration hospitals, Dr. S. T. Ginsberg, chief of the psychiatry division at VA central office in Washington, reports.

The patient governments are organized in two different ways. In the first type, patients on a ward elect several of their members as a council to represent the ward in joint meetings with the hospital staff.

In the second type, an overall group is organized along the lines of a community citizens' association, with a constitution and by-laws. Periodic meetings are presided over by elected officers.

Patient governments help the hospital administration by improving procedures and relationships between patients and the staff.

The main effect, however, Dr. Ginsberg reports, is to give patients opportunities for initiative and self-expression and for assuming responsibility for themselves and their fellow man. This helps in their recovery.

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GENERAL SCIENCE

Atom Industry Does Not Offer "Quick Dollar"

➤ **THE NUCLEAR** power industry in this country is no rags-to-riches business, an American Management Association conference on "Managing the Atom," was warned in New York.

High profits and a quick return are not likely to be found in the infant industry of atomics, Carroll L. Wilson, president of the Metals and Controls Corporation and a former general manager of the Atomic Energy Commission, said.

Progress will be slow, he explained, because atomic power plants will be experimental, costly and uneconomic for some time to come.

Mr. Wilson cautioned the industrialists that development in the field of atomic power will be completely dependent on the Government.

The whole advance of nuclear power, he said, depends heavily upon the will of the Government and unless the Government continues to finance the costly prototypes of new power reactors, progress will be slow. Experimental reactors are too expensive for private industry to finance, he pointed out, adding that only the Government can foot the bill for reactor experiments that cost up to \$30,000,000 each.

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CE FIELDS

MEDICINE

Industrial Noise Is Tough Problem to Doctors

► THE EFFECTS of noise are becoming a serious problem to industry, workers and physicians, Dr. C. Stewart Nash, University of Rochester School of Medicine and Dentistry, Rochester, N.Y., told a regional meeting of the International College of Surgeons in White Sulphur Springs, W. Va.

The problem is who is responsible for hearing losses that occur among workers.

Occasionally a worker becomes fatigued or irritable if the noise around him is too great, but he may also become hard of hearing if exposed to a clatter that is too intense for the ear to withstand, Dr. Nash said.

The physician dealing with industrial deafness is faced with conflicting forces, he added.

Dr. Nash is sometimes asked to testify for a worker that his hearing "loss" was caused by plant noise and is permanent in nature. Industry, on the other hand, while wanting to compensate employees who actually are deafened, wants the ear specialist to rule out disabilities that happened years ago, Dr. Nash reported.

A third party, the insurance company, wants to distinguish between a temporary hearing loss and a permanent one, the physician added.

"In efforts to make the best of a bad situation, labor, industry, workmen's compensation boards, industrial commissions and underwriters are constantly jockeying for positions advantageous to their own points of view," he said.

But progress in reducing damaging plant noise is being made as a result of studies of the types and intensities of noise that can and do produce occupational deafness, he concluded.

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MEDICINE

Tranquilizers Endanger Emotional Health

► TRANQUILIZING drugs can endanger your emotional health as well as your physical health, Drs. Herman A. Dickel and Henry H. Dixon, department of psychiatry, University of Oregon Medical School, Portland, warn in the *Journal of the American Medical Association* (Feb. 9).

The psychiatrists studied the effects of the drugs in 8,200 patients suffering from anxiety and found that some became depressed enough to commit suicide, some suffered severe toxic reactions, and many others experienced serious emotional problems.

Many normal people who go to their physician for advice or counsel about mildly distressing problems get a "perhaps too casual" examination and evaluation and a prescription for a new tranquilizer, they reported.

"The patients returned to complain of unpleasant, unwanted responses, often emotional, to the drugs, and the physicians misinterpreted the responses as meaning a more 'deeply seated' illness was present. They so stated to the patients and precipitated a serious reaction," the psychiatrists reported.

In the present philosophy of freedom from anxiety, there is a "malignant tendency" forcing us to believe that no one should ever be afraid or so moved about his position in life that he does something about it, they said.

Instead, we are to be completely tranquil under all circumstances and let someone else "do the worrying," try to get ahead or be successful.

Many of the individuals the psychiatrists saw were not able to handle the conflicts and tensions of life without the tranquilizers but the majority of them were using the drugs and becoming valueless to themselves and to the group in which they worked, they said.

"Finally, the modern medical philosophy must continue to be that basically man is better off having to fare for himself—that being too well cared for, having too little fear from cradle to crypt is not healthy and that all drugs are still only a small and essential part of medical practice, certainly no cure-all for modern trouble to be dispensed indiscriminately without sound medical advice," they concluded.

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PHYSIOLOGY

Brain Stroke Condition Not Found in Animals

► NEW facts about why humans suffer more brain strokes than animals have been reported by Dr. W. E. Stehbens, University of Sydney, Australia, in *Nature* (Feb. 9).

Dr. Stehbens has found that animals have the same defects in the walls of their brain arteries that give rise to dangerous stroke-causing aneurysms in man. But in animals, the aneurysms themselves are rarely found.

These defects occur in the arteries, at the point where they divide into two branches, and have been considered by some to be the main cause of the aneurysms or sac of blood which forms in the weakened area. When these aneurysms burst from too much pressure, they can cause paralysis and death by disrupting the flow of blood to vital brain tissue.

A study of the brain arteries of dogs, horses, and sheep has shown that these defective walls occur quite frequently in animals as well as man, Dr. Stehbens reported.

These findings indicate that defective walls are not the only cause of the dangerous blood pockets in man, he reported.

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EDUCATION

To Survey Universities' Overseas Activities

► WHAT do American universities do overseas? The Carnegie Corporation of New York has made a grant of more than a quarter of a million dollars to Michigan State University to find out.

The grant will enable the Michigan researchers to appraise the wide variety of programs in all parts of the world in which U. S. universities are active, including the technical assistance programs sponsored by the federal government.

Grants, totaling more than \$1,000,000 were made by the Corporation for studies in the international field. Others of the grants include money to Columbia University to enable 40 Russian area experts to make short trips to the Soviet Union; a study of the role, purpose and performance of ROTC programs, to be done at Dartmouth College, Hanover, N. H., and a grant to the Common Council for American Unity to translate into Hungarian its handbook for immigrants, which is called "*Life in America*."

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CHEMISTRY

Watered Down, Reheated Minerals "Fluoresce"

► THE FACT that some minerals turn bluish-green under ultraviolet or "black light," when they are watered down and reheated, might prove to be a new tool for studying the surface of solids.

A description of how a large number of colorless inorganic solids fluoresce because they had adsorbed water is reported in *Nature* (Feb. 9), by K. Przibram of the Institut für Radiumforschung, Vienna, Austria.

Calling the phenomenon fluorescence, reversible by annealing, Mr. Przibram points out that the colorful fluorescence does not appear after the samples have been heated strongly for a short time, but it returns when they are either kept for months exposed to the air or when they are wetted.

"Rather surprisingly," the Austrian scientist says, "the fluorescence is also regenerated when the strongly heated samples are heated again to a less degree."

This he calls the reversibility of fluorescence by annealing and thinks that when the colorless minerals are first heated strongly, water is driven out, driving out with it the possibility of fluorescence.

During cooling in open air, water vapor condenses on the surface. When excited by renewed heating, the water molecules are bound more strongly to the surface and this state is fluorescent.

Reversible fluorescence, Mr. Przibram says, with more and varied study, might shed some ordinary light on the adsorption of vapors on solid surfaces and on the structure of solids.

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