

will always remain and that even those patients who recover after insulin treatment may relapse if subjected to severe or protracted mental strain.

The more hopeful view is that even if the first insulin-treated cases relapse, the treatment will succeed in the end. Questions of dosage and of how long to continue the treatment have not been established. Dr. Sakel is frequently questioned on this very point of how much insulin to give and how many times to repeat the shock. His answers to physicians are always that each case has to be considered by itself and the treatment adapted to the condition and reaction of the patient. Some patients need a large enough dose of insulin to produce convulsions. Others improve without convulsions but after the shock of coma.

The victims of this most common and most tragic of all mental ills number over 150,000 in the United States alone. They fill one-fifth of all the hospital beds in the country. Most of the victims are stricken just as they are attaining maturity, at the very outset of their economic independence. The cost of their support and care, at home or in institutions, plus the loss of their removal from productive pursuits, is at least \$1,000,000 a day. Some authorities put the figure at \$2,000,000 daily.

Added to this is the incalculable cost of the disease in terms of human suffering. The share of this that must be borne by the patients, shut away from the world of the sane by the thick clouds of mental disorder, cannot even be imagined. Easy to imagine but hard to evaluate is the cost in grief to the families who must stand helplessly by, unable to aid and, in many cases, unable even to make themselves recognized or to bring that cheer and sympathy which helps assuage the suffering of patients hopelessly ill with bodily disease.

For all these, insulin shock treatment brings hope for freedom from economic burden, from shame or old-fashioned stigma, from grief and suffering, best of all from insanity itself.

Science News Letter, May 21, 1938

PSYCHIATRY

Shocks of Many Kinds Are Useful Against Mental Ills

SHOCK appears to be a cure for dementia precox in some cases regardless of the agent producing the disturbance to the nervous system.

Insulin is one agent being used successfully to literally shock patients out of their mental disease.

Other compounds are being used to create shock for the dementia precox patient. One of the first tried was camphor. A dose of the drug will produce in the patient convulsions like epileptic seizures, and with recovery from these fits comes recovery from the mental disease also.

Metrazol is now replacing camphor, because it acts more immediately. Like camphor, it is being used reluctantly for the reason that physicians know so little about possible complications in the use of this drug.

The satisfactory part of the insulin therapy is that it is so easily and instantly controlled. Physicians can let the shock proceed as far as seems necessary or desirable and then instantly stop it with the administration of a little sugar.

When the convulsion-producing drugs are used, patients may sometimes go into a state of having one seizure after another, in which case, the physician can only stand helplessly looking on. This occurs only very rarely, however, and ordinarily the force of the drug is spent within a single minute.

This short duration of treatment as compared with the hours required for the insulin administration, is an important advantage of the metrazol type of shock.

Serious complications, including dislocations and bone fractures due to the violence of the convulsion, and also lung abscess have been warned against.

Among the patients treated with metrazol at Brooklyn State Hospital who had been ill less than six months, 91.3 per cent showed definite improvement. More than two-thirds (69.5 per cent) were released from the hospital. Of the group who had been ill between seven months and two years, 41.3 per cent showed improvement and 29 per cent were paroled. Of those ill more than 2 years, 34.9 per cent showed improvement and only 11.3 per cent were paroled.

The insulin and metrazol produced shocks are not the first known to have cured the mentally ill. Dr. N. D. C. Lewis, director of the New York Psychiatric Institute, has reported several surprising cases that were suddenly

THE AUTOBIOGRAPHY OF GENERAL ISAAC J. WISTAR

(1827-1905)

Almost hermetically sealed for 32 years after his death, the autobiography of General Isaac J. Wistar, colorful character of a colorful period, gives the American reading public a fresh, first-hand account of the nation's roisterous makers, from the Forty-Niners to the early industrialists.

Written from his diary and contemporary notes, Wistar's opus was intended only for close kinsmen's consumption. It tells with especial frankness of the gunfights and slayings, raw deals and chicanery of the opening of the Far West. In these Wistar, though of heroic stature, is not a hero to be emulated by good little boys. His will, upon his death in 1905, prohibited publication of the autobiography for at least 5 years. In 1914, The Wistar Institute of Anatomy and Biology, which he endowed, cautiously printed 250 copies with a foreword which bound their select readers to confidence.

This new limited edition is published, turning new light on historical controversies of the Civil War period and giving naturalists one of the few eye-witness accounts of the virgin wonderland of the Northwest by a nature lover who literally blazed its trails.

Recent Reviews

"This autobiography reveals one of the most colorful characters and careers in American history."

Westchester Feature Service.

"Valuable adjunct to historical records."

Boston Sunday Post.

"A strange adventure tale interlarded with the vigorous opinions of a man who knew his own mind better than most, it relates many striking incidents."

Time.

"Easy, smooth, readable literary style."

Florida Times Union.

"Unusually colorful and frank."

The Enquirer, Cincinnati.

"The book is a fortunate combination of historical material with vivid narrative and unquenchable personality, at all times vigorous, shrewd and veracious record."

Cornelia Meigs.

Pages viii + 528. Illustrated. Cloth, 8vo.

Published December, 1937

Order through your local dealer or

THE WISTAR INSTITUTE OF ANATOMY AND BIOLOGY

Woodland Avenue and Thirty-sixth Street

Philadelphia, Pa.

startled or physically shaken out of their mental fog by a severe shock.

One case occurred during the time when Dr. Lewis was experimenting with snake venom as a death-producing agent in animals. He had a collection of extremely venomous snakes and kept them in secure cages with a special device for putting in food out of reach of their deadly fangs.

The snakes liked sun. One day while they were sunning outdoors outside the laboratory, a patient, perhaps bent upon suicide or with some irrational purpose in mind, broke out of the line of those taking exercise. He rushed to the cage of snakes, tore the top off, and thrust his arm in among the serpents. He was badly bitten.

Within fifteen minutes Dr. Lewis was working over him with shock combating drugs. But already the patient was mottled from the poison, his eyes were rolled back in his head. He seemed close to death.

He lived.

And when he recovered, his mental disease was gone.

Another such recovery was due to the action of another patient. The man was weaving when the other patient crept up behind him and hit him a terrific blow over the head with an ax handle.

For days the victim of the attack lay unconscious. X-rays showed that no fracture had occurred; he had merely suffered from a terrible shaking up of his brain. When at last he woke from his unconsciousness, he was restored. The mental disease had gone.

On a problem so complicated as that of dementia precox, scientists cannot afford to overlook a single avenue of approach. Laboratories are busy constantly seeking new methods of treatment.

Science News Letter, May 21, 1938



Poison Ivy Poultices

POISON ivy would hardly appeal to most of us as suitable material for medicine, either external or internal. Yet we learn, on the authority of Dr. Huron Smith, a careful ethnologist, that the medicine men of at least two prairie tribes, the Meskwaki and Potawatomi, made poultices out of pounded poison-ivy roots for the opening of some kinds of swellings. The art is largely lost now.

Only the most skillful of the medicine men were supposed to know how to prepare this rather drastic remedy—and no wonder! Their patients must have been *very* tough Indians.

The "roots" mentioned by Dr. Smith were presumably really the underground stems or rhizomes of the poison ivy, for the true roots of the plant are small and fibrous affairs, difficult to gather and containing little sap. But the rootstocks are thick and juicy, and the sap is as virulent as that of any other parts of the plant. Perhaps it worked on the principle of the old-fashioned mustard plaster, or the still older cantharides blister, used in paleface medicine—as a drastic counter-irritant.

Indians of many tribes recognized poison ivy as a bad weed to fool with, just as white men do. The stories that all Indians were immune is pure fable. Some of them were, just as some fortunate white persons are. But in general, red skins were as likely as white to blister and itch after contact with the three-leaved menace. Indians had many folk remedies for ivy poisoning, most of them useless, just like most of the poison ivy "cures" we ourselves desperately use.

Ivy poisoning yields, in almost all cases, to one basic scientific principle—oxidation. Use a good, active oxidizing agent and you get relief and remove the cause. One recommended nowadays is a five per cent. solution of potassium permanganate in water, or water-and-alcohol. This leaves a brown stain, which can be removed with lemon juice.

The permanganate treatment must be used with discretion, lest it irritate the skin itself. But most of us, tormented with unbearable itching and burning, are willing to take a chance.

Best thing of all to do, of course, is to learn what poison ivy looks like and keep away from the infernal stuff. Recognition, of course, is easy; avoidance may not be quite so simple. But with reasonable caution, the dreaded contact may nevertheless be shunned.

Science News Letter, May 21, 1938

● The Trembling Earth

Information collected by Science Service from seismological observatories and relayed to the U. S. Coast and Geodetic Survey resulted in the location of the following epicenters:

Wednesday, May 11, 9:44.6 a. m., E.S.T.

In the Pacific Ocean off the coast of the Mexican state of Guerrero. Latitude 14 degrees north, longitude, 101 degrees west.

Thursday, May 12, 10:39 a. m., E.S.T.

Severe, with waves of "enormous amplitudes, at the eastern edge of the East Indian island of New Guinea (approximate).

Stations cooperating with Science Service in reporting earthquakes recorded on their seismographs are:

U. S. Coast and Geodetic Survey Stations at Tucson, Ariz., Ukiah, Calif., Honolulu, T. H., Sitka, Alaska, San Juan, P. R.; University of California; Carnegie Institution of Washington, Pasadena, Calif.; Georgetown University; U. S. Weather Bureau, Chicago, Ill.; Seismograph Station, 1224 44th St., Des Moines, Iowa; Massachusetts Institute of Technology; Oak Ridge Observatory, Harvard, Mass.; Weston College; Williams College; University of Michigan; St. Louis University; Apia Observatory, Apia, Samoa; Manila Observatory, Manila, P. I.; Montana State College; Montana School of Mines; Canisius College; Fordham University; St. Xavier College, Cincinnati, Ohio; The Franklin Institute, Philadelphia, Pa.; Pennsylvania State College; University of South Carolina; University of Vermont; University of Wisconsin; Dominion Observatory, Ottawa, Canada; Meteorological Observatory, Victoria, B. C., Canada; Phu Lien Observatory, China; Zikawei Observatory, China (Shanghai); Magnetic Observatory, Huancayo, Peru.

This Handy Coupon

IS FOR NEW OR RENEWAL SUBSCRIPTIONS

To Science News Letter, 2101 Constitution Avenue, Washington, D. C.

Please start renew my subscription to SCIENCE NEWS LETTER for 1 year, \$5 2 years, \$7

Name.....

Street.....

Address.....

City and.....

State.....