



BEFORE AND AFTER

Peter K. was suffering from suicidal phantasies; he drew pictures like the one at the top. After treatment and emotional improvement, his pictures were very different, like that at the bottom.

known as the sodium salt of N-Methyl-C.-C.-cyclohexenyl - methyl - barbituric acid.

The anesthetic, injected directly into the blood stream through a vein in the arm, produces a deep, normal sleep within thirty seconds. The operation can be started immediately. After the operation the patient awakens easily and gradually without any unpleasant after-effects. In Dr. Miller's experience, evipan is more effective if morphine or a similar drug is given first.

"If further investigation confirms my present experience," he concludes, "this drug may become as valuable to the surgeon as ether or novocaine for suitably chosen operations."

Science News Letter, January 6, 1934

Dr. Thorndike Honored

See Front Cover

Dr. Edward L. Thorndike, psychologist and educator of Teachers College, Columbia University, was elected president of the American Association for the Advancement of Science. Dr. Thorndike, whose picture is reproduced on the cover, has been associated with Teachers College since before the turn of the century and is known to all students of education for his theories of learning and habit formation.

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PSYCHIATRY

Emotional Difficulties of Children Revealed in Play

Puppets of Hated Elders Torn Apart to Relieve Strain; Drawings Reveal Thoughts That Fill the Young Mind

THE PLAY of children, if observed scientifically, gives an excellent clue to what is hidden in their minds, members of the American Psychoanalytic Association, meeting in Washington, learned from a report of Dr. Edward Liss, school psychiatrist of New York City.

Dolls and puppets used in dramatic plays and games in which the children act out a story, as well as story-telling and artistic composition in clay modeling, soap sculpture, and drawing, all reveal significant matters which the child is not able to put into words even if he were willing, Dr. Liss found in attempting the psychoanalysis of children.

One toy, used by Dr. Liss to bring out the suppressed hatred which children sometimes feel toward others, is a doll which can be taken apart merely by tugging at its many ball-and-socket joints. The child will pretend that the doll is the governess, or father, or whoever is resented, and then will yank off the arm or head with great energy. This serves to work off the child's emotional tension, as well as to reveal to the psychoanalyst the source of his trouble.

Peter K., a nine-year-old who was referred to Dr. Liss for examination because he was suffering from depression and suicidal phantasies, was allowed to make drawings without any direction. These drawings were full of action and showed the thoughts that were filling Pete's young mind. Scenes of physical violence and fires and other exciting catastrophes were the subjects he selected. Very different were the pictures drawn after he had been under treatment and had improved emotionally. These were the peaceful landscapes more commonly drawn by children.

Adults, too, betray their emotional condition through their creative efforts and creative play. Dr. Liss exhibited to the scientists two paintings made by a promising young artist. He came to Dr.

Liss for treatment, not because he was having difficulty with his art, but because he was a delinquent with kleptomanic tendencies.

The first picture, painted when his troubles were at their height, is very peculiar in style, eccentric in the use of color as well as in the composition. The second, done after he had gotten well, was in an entirely different style and shows that the boy has real talent when his emotional state does not interfere with its expression.

Science News Letter, January 6, 1934

ARCHAEOLOGY

Egypt Keeps Rank As Civilization Pioneer

EGYPT is still the land of "first things." Despite recent discoveries of antiquity in other lands, Egypt still holds her place as the country which led and pioneered in civilization, Dr. George S. Duncan of the American University told the Archaeological Institute of America meeting in Washington.

Egypt reached a higher quality of civilization for the same given periods, than did either India or Mesopotamia, Dr. Duncan pointed out.

The oldest artifacts in the world have been discovered in Egypt, he said, citing numerous instances of Egypt being "first." Stone tools found in the old Nile Bed, the oldest Egyptian hammers and first hatchets are pronounced several hundred thousand years old at least.

The first large organized government in the world's history, so far as is known today, was established in Egypt by 3400 B.C. with one ruler, the Pharaoh, at its head, Dr. Duncan continued. Other lands had city states with a king or local ruler over each. In Babylonia, the first union of states did not take place until 2000 B.C.

The earliest known physician, Imhotep, served an Egyptian pharaoh of the Old Kingdom, 2980-2475 B.C.

There were medical specialists, even in the Old Kingdom. Physicians of the palace included an eye specialist, a stomach and bowel specialist, and a palace dentist.

The oldest immortality texts in the world are in Egypt, in pyramids of 2600 B.C., though some of the material is much older, going back to 4000 B.C. as shown by allusions in the text.

Dr. Duncan cited the oldest known will, written by an Egyptian pharaoh Amenemhat IV, 1800 B.C., and bequeathing his property in surprisingly "modern" legal style.

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GEOLOGY

Alaskan Glacier Advances While Others Retreat

THE ONLY known case of an Alaskan glacier advancing was called to the attention of the Geological Society of America by Dr. Chester K. Wentworth and Louis L. Ray of Washington University, St. Louis, Mo.

During the past fifteen or twenty years, Dr. Wentworth said, Alaskan glaciers generally have been melting back faster than they have been flowing forward. The net loss has been as much as 170 feet in some glaciers, as little as 20 feet in others. But the Taku glacier alone has been in rapid forward movement. It has advanced 7,600 feet since 1909.

The cause of this anomalous advance is a mystery. Dr. Wentworth suggested the possibility of an earthquake's having caused the dumping of a huge quantity of snow on the glacier, perhaps in 1899 or at some time since.

Science News Letter, January 6, 1934



THE MYSTERY OF THE OCEAN

an address by

Dr. Paul S. Galtsoff

Of the Bureau of Fisheries,
U. S. Department of
Commerce

Wednesday, January 10, at 4:30 p. m., Eastern Standard Time, over Stations of the Columbia Broadcasting System. Each week a prominent scientist speaks over the Columbia System under the auspices of Science Service.

MEDICINE

Seek to Make Practical Use Of Tuberculosis Discoveries

Carriers of Dysentery Parasites Found to Be Numerous; Familiar Coal Tar Dyes Combat Skin Infections Effectively

SIGNIFICANT differences between the germs that cause tuberculosis in humans and those responsible for the disease in other animals have been discovered, and a corps of research workers are hard at work upon the difficult task of attempting to translate these research findings into methods of preventions and cure that doctors can use, Dr. William Charles White, Chairman of the National Tuberculosis Association's Committee on Research, revealed to the American Association for the Advancement of Science.

The human tubercle bacillus has within itself one substance, a fatty acid, that occurs in none of the other tubercle germs, Dr. R. J. Anderson, of Yale, has discovered. The chemical substance is able to produce the tubercle growths characteristic of the disease without the presence of the bacilli themselves. So far, Dr. Anderson's studies have been confined to only one strain of the kind of bacilli occurring in human beings, but the research is being rushed to include all the human strains.

Another promising lead to the possible conquest of the white plague is the fact that the germs that cause the disease have much greater difficulty getting along without oxygen than the germ strains that are relatively harmless. Again this peculiarity has not been practically applied.

Preparations are being made to study the life, loves and experiences of a single individual tubercle bacillus, Dr. White explained. Heretofore only large colonies or "herds" of the germs have been observed because of the difficulty of singling out individuals.

One Out of Three

One out of three persons of a typical college group has within his body an ameba parasite similar to the sort that caused the amebic dysentery epidemic in Chicago last summer that resulted in the death of "Texas" Guinan and several others, Drs. D. H. Wenrich, R. M. Stabler and J. H. Arnett, of the

University of Pennsylvania, reported.

Although many of those carrying these minute animal parasites are not ill in any way, they are carriers who, through carelessness, may spread the disease to others and thus menace the community. Very careful diagnostic work is often necessary to locate these potentially dangerous carriers, the Pennsylvania scientists said.

Green Dye For Skin

Two familiar green aniline dyes made from coal tar are effective in combating and subduing some of the common skin infections that are due to fungi, Dr. A. McCrea, of Parke, Davis and Company, Detroit, reported. These dyes, known as malachite green and brilliant green, were found to be outstanding in killing action, far surpassing all others tested, including aniline violet, fuchsin basic and gentian violet.

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PHYSIOLOGY

Too Easy Living Injures Insulin-Producing Gland

EASY living is hard on parts of the pancreas that produce insulin; abstemiousness tends to repair the damage.

This has been shown in the case of fish by Dr. Walter N. Hess of Hamilton College, who described his experiments before the American Society of Zoologists. Dr. Hess used rainbow trout as his subjects. Some of them he overfed, others he put on a diet too high in fat-forming foods, and still others he fed normally but kept under-exercised.

In all cases, the islets of Langerhans in the pancreas, which are the insulin-producing areas, diminished in number and degenerated in condition. However, Dr. Hess put similarly pampered trout on a diet low in fat-producing materials and after a while the damaged tissue showed considerable regeneration.

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