developed. These induced attacks were identical with the spontaneous attacks, one of which we had occasion to observe later.

RELATION TO VARIOUS FORMS OF NEUROSES. — This case is similar to cases of this sort which had been studied by Janet in France, Breuer and Freud in Germany, and a number of cases studied in this country by Sidis and Prince.

The question is further raised by such cases as this, whether some of those cases of fear neuroses studied by one of us (Prince) in which there are manifested all the physical manifestations of fear, without the presence of the emotion itself — thus presenting a psychic paradox — whether some of these cases have not as a foundation a subconscious and unrecognized fear.

PATHOLOGY. — This analysis enables us to understand to a large extent the pathology of the attacks. At the time of the accident the intense emotional disturbance, the fright, acted as a dissociating agent, and dissociated the sensory and motor images of one half of the body in such a way that they were no longer in *rappor*t with the personal consciousness. These dissociated elements were not, however, inhibited, or incapable of functioning, as is shown by the hallucinations and other phenomena brought out in the test experiments. In cases of this kind, dissociated sensory and motor images become what is called "subconscious" and capable of automatic activity. Sensory impressions are subconsciously perceived, and motor images subconsciously excited. The dissociation (through the influence of the emotion) of these sensory and motor images and their automatic subconscious excitation is the attack. The original emotion, fear, remains (unknown to the subject) dissociated in the subconsciousness as a fixed state. Here from time to time it acquires a separate and independent activity. At periodic intervals, as under the stress of some emotion, or by association of ideas, its dormant activity is awakened and, though still unknown to the patient, gives rise to the same sensory-motor disturbances which characterized the original experience. These subconscious dissociated states are so much more intense in their manifestations because of being cut off, by the very fact of their dissociation, from the inhibitory influences of the normal mental life.

The pathology of such cases as this and of hysteria in general, then, consists on the one hand in the dissociation of the mental (and cerebral) processes, and on the other hand in the independent and automatic activity of the disaggregated psychic (and cerebral) states. Dissociation and automatism are the two fundamental processes.

The case furthermore gives an insight into the nature of many of the cases of "traumatic neuroses," of "psychic" epilepsy, of hystericepileptic seizures, and of some forms of insistent ideas and impulses.

TREATMENT (*reassociation*). — Once a case of this kind has been analyzed and its pathology determined, it is possible to bring about a cure

by synthesizing the dissociated mental states with the waking consciousness; or, in popular language, by making the mind whole once more. For this purpose the dissociated lost memories are brought into the full light of the waking consciousness, which is thus made to have a complete knowledge of them. So long as normal associations are maintained between the *lost memories* (or mental states) and the normal mental life, the system which before was dissociated can no longer be thrown into independent activity, and the train of symptoms to which that activity gave rise can no longer appear.

That is what we did in this case: In hypnosis he was made to realize that he was twenty-one years old; he was given a knowledge of his present life, of the subconscious states with their attacks, and was made to realize the absurdity of his really being sixteen years old. In his waking life he was made to remember all the events of the incident. The subconscious and the waking memories were thus united. During the whole course of treatment by association, a course which covered a period of several weeks, the dissociated system was coming to the surface of consciousness more frequently, and in a fuller and more developed form. The attacks were more frequent, but of shorter and shorter duration, lasting but a few hours instead of several days. Finally the system became stable and permanently associated.

After the stability of association was effected, it was found that he could no longer be made to pass into that particular hypnotic state. The subconscious fear could no longer be excited. The attacks could no longer be artificially induced; indeed the anesthesia and the spasms could no longer be developed.

Although there is no reason to suppose that he is not cured, for a complete proof of a cure (a year or more must pass), still, as the attacks cannot be artificially induced, it is not probable that they can be excited by the associations which usually call them forth.

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Clinical Department.

A CASE OF STONE IN THE BLADDER IN A BOY OF FIFTEEN.

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The following case is reported as being somewhat out of the usual run, because of the age of the patient, the size of the calculus, the peculiarity of the nucleus, and of some of the symptoms.

A. B., fifteen years old, school boy, was referred to me by Dr. E. P. Joslin for treatment. The history of case as follows: Family history, mother died of phthisis when he was an infant; only child. Previous history, negative.

Present illness. — Eighteen months ago he began to have trouble with his urine. It began as a "burning and scalding," with pain at the base of the penis and in the suprapubic region. He said that at one time he had had a slight discharge from the urethra and had, on one occasion, passed blood from urethra. There was no other history of venereal disease or exposure. Six months after the onset of the attack, the right testicle became swollen, and he was obliged to stay in bed for a few days. He has been getting up from two to six times every night to micturate, and during the day he suffers more from imperative than from frequent micturition. He has pain before, during, and after micturition. Urine dribbles at times, and is passed sometimes with a good deal of straining and tenesmus. He is not made worse, to any extent, by exercise. He is able to play with the boys. His urine, according to his statement, "never stopped short in the middle of a full stream, but he was unable to pass it at times unless after taking nitre."

One day in my office he was only able to pass a little urine until he had made pressure on the base of his bladder through the rectum with his finger, after which he passed several ounces; this method he had only found out in the last few days. He said the urine at times was very thick, much more so than when I first saw him. He complained of a mucous diarrhea, and had passed some blood by rectum. He had not lost weight. Appetite good. He is greatly bothered by frequent and painful micturition at night, and shows the effects of loss of rest.

He has taken at various times solutions of potassium acetate and citrate, with tincture of hyocyanus.

Examination. — Well developed and nourished boy. Heart and lungs negative. External genitals large, nothing abnormal. Right epididymis slightly more palpable than left. Prostate a little enlarged and somewhat tender, more on the right. Urine very turbid, containing large shreds, much mucus and pus.

Chemical examination. — Pale, specific gravity 1012, acid, urea .69, albumen, trace.

Sediment. — Much pus, some bladder epithelium; no renal elements could be found.

Neither tubercle bacilli nor gonococci found after very careful search. Enormous number of mixed organisms present; the colon bacillus seemed to predominate.

There were two ounces of residual urine drawn with soft catheter. The tolerance of the bladder was between four and five ounces of irrigation fluid. There was a good deal of tenderness and resistance in the deep urethra. Examination under ether advised, the provisional diagnosis being either stone or tubercular disease.

On Feb. 22 patient entered the Deaconess Hospital, having been treated for a few days with bladder irrigation and urotropin, grs. viiss, twice a day, without benefit. Two days later, under ether, a stone was readily detected with the searcher; it was on the right side of the internal meatus, and seemed to be adherent. With the cystoscope (Nitze, size 22 being used), the rough white surface of the stone could readily be seen filling the entire field of the instrument, but the working space was so small that it was impossible to say whether or not in different fields we were looking at the same stone or multiple ones. The stone could not be felt bimanually.

Suprapubic cystotomy was decided upon and per-

formed at once. The bladder was more distensible under ether. The peritoneum was found low down; it was pushed back out of the way, the bladder opened, and the stone delivered with some difficulty. It was found standing on end, so to speak, and had to be enucleated from a pocket it had made in the base of the bladder to which it was adherent for about two thirds of its length. This partial fixation accounts for his not having more trouble when taking exercise, the fact of the stone being a light phosphatic one probably had something to do with it also. The bladder was closed up tight around a half-inch rubber tube with plain catgut, the rest of the wound sutured with silkworm gut, and a small gauze drain put in the pre-vesical space. Syphon drainage was established and the bladder washed twice a day through and through by the urethra. After five days the tube was changed for a smaller one, and in four days more this was taken out, the wound drawn together, and urethral drainage established. The suprapubic wound leaked for forty-eight hours only after the tube was removed. The catheter was removed in six days and micturition was normal. The patient was up in three weeks, and out in four weeks after the operation, entirely relieved of all subjective symptoms.

Convalescence was uneventful, except on the second night after the operation, when there was a sharp reaction, due probably to infection of the raw surface of the bladder, the temperature going to 104° and the pulse to 116. There was spasm and tenderness over the left kidney and ureter. The urine was dark, and filled with blood and shreds of tissue, having the appearance of a severe hemorrhagic cystitis. There was a little albumen, but no renal elements could be found. The patient was given salt solution by rectum. The next day the temperature was 100° and normal from then on. On the fourth day the blood in the urine had disappeared. The twenty-four-hour quantity had always been sufficient, in fact a slight polyuria.

Two months after the operation the patient is perfectly well, except at times the urine is slightly turbid and contains a few shreds and slight amount of pus. This is probably due to a slight urethro-cystitis, which is gradually disappearing under urotropin and occasional irrigation. Can find no evidence of any trouble with the kidneys.

Longitudinal section of calculus. Actual size.

Examination of the calculus by Dr. R. L. Emerson of the Harvard Medical School is as follows: Dimensions, $2\frac{3}{4} \times 1\frac{1}{2} \times 1\frac{1}{16}$ in. composed of calcium phosphate with a little calcium carbonate, the nucleus being some gummy, resinous substance like a medicated bougie (see cut). I have been able to get no history from the pa-

tient as to how it came to be there. There has been no instrumentation of the urethra except on one occasion, a year after the onset of his symptoms, when a physician washed out his anterior urethra. The boy may have had an attack of urethritis and introduced the bougie himself as a curative measure.

I am very much indebted to Dr. F. J. Cotton for assistance during the operation. The early and excellent result obtained in this case was due in no small measure to the care with which the drainage apparatus was watched at the hospital.

A CASE OF LABOR IN AN EPILEPTIC.¹

BY ANNIE LEE HAMILTON, M.D., BOSTON.

THE case I am to report this evening entered the New England Hospital Dec. 11, 1903, during the service of Dr. Marion Nute. The patient's physician had accompanied her because, he said, he wanted us to know that the case was one of epilepsy rather than uremia.

The family history was negative. The patient was a primipara, married; twenty-six years of age; whose general health was said to have been good excepting the epileptic attacks to which she had been subject for twelve years. The first convulsion occurred when she was fourteen years old, at her first menstrual period. The first two attacks were thought to be purely hysterical, as the patient did not lose consciousness, but twitched, struggled and threw herself about. With the third attack, she lost consciousness and foamed at the mouth. This time, it was considered true epilepsy, and since then the attacks have been more or less frequent, usually associated with the menstrual period. She sometimes had as many as two or three attacks in a week. During her pregnancy they were less frequent up to the sixth or seventh month, then rather more frequent between the seventh and eighth months.

Up to Dec. 8 (four days previous to her entrance), she had not had a convulsion for four weeks. On Dec. 8 she had three, and two or three on each ensuing day until the eleventh when she had five before coming to the hospital. The patient had not been rational all day, but this was the first time she had ever been "out of her head" to her husband's knowledge. She had seemed to be in pain all day and was thought to be in labor. She was about eight and a half months pregnant.

Examination showed the patient to be a medium-sized, dark-complexioned, young woman, face somewhat cyanosed; unconscious; rather restless; pulse strong, full, regular. Heart normal. The fetus occupied the right sacro anterior position, breech presenting. The heart was loud and strong. The patient's pelvic measurements were fairly good; external conjugate 19 cm., ant. sup. sp. 22 cm., crests 24.5 cm., between trochanters 29 cm. Internal examination showed the os dilated to the size of a quarter, with a small part presenting, and the diagnosis of footling presentation was made.

The patient resisted examination, throwing herself about on the table and appearing to have severe pain. Just as she was taken from the table she had another attack, lasting three minutes. A hasty examination of the urine showed specific gravity 1,030, reaction acid,

merest trace albumin, urea 2.14%. At seven o'clock the patient had another attack lasting about three minutes. This appeared as follows: The eyes became fixed and staring, jaws tightly closed and whole body rigid; the face cyanosed, and the head turned to the left side. The breath held and finally caught with a great gasp. Then the twitching of face, hands and whole body began, at first fine, later of greater amplitude, then ceasing altogether. The face regained its normal color and the patient sank into a stupor, snoring loudly, foam escaping between the lips. There was no cry with this attack. She remained in this stupor for about an hour gradually recovering consciousness sufficient to answer questions in a stupid way. It was decided to dilate manually and deliver. As the patient now resisted manipulation very little and as it was felt that the smallest amount possible of ether should be given, the dilatation was started without an anesthetic and continued until nearly complete. As the pains now started in with renewed energy (they had been occurring at intervals of ten minutes all the evening) it was decided to see what work the presenting part would do in dilatation, and manipulations were stopped for the time. We did not wish to rupture the membranes, as the cord was coiled in the presenting pouch. At 11 p.m. she had another convulsion resembling the one described, but beginning with the true epileptic cry and lasting somewhat longer. The fetal heart remained strong, but we decided that it would be better to delay delivery no longer and, as soon as the patient's breathing and color improved sufficiently, started the ether, completed dilatation, ruptured the membranes and delivered a living male child somewhat asphyxiated but soon resuscitated by immersing alternately in hot and cold water and which cried quite vigorously. Child's weight 2,170 gm., about 4½ lbs. The placenta and membranes intact were expelled five minutes later. There was no laceration. The patient's pulse was 132, strong and full. She soon apparently recovered from ether, but did not recover consciousness. Rested quietly until 3 a.m., when she had another convulsion lasting about three minutes, resembling those described. After this she slept five hours. At 8 a.m., Dec. 12, she seemed rational and gave clearly some of the details for the birth certificate, but could not remember her street or number. She took nourishment readily. In the afternoon she became more stupid and answered no questions except when asked if she had seen her baby, when she answered "No."

Dec. 13, third day, T. 98.6°, P. 68, R. 20.

Patient seemed more stupid to-day; her appearance has changed. In the morning she had a fixed stare and seemed to hold her face and jaw perfectly rigid. Her body was stiff and she clutched the bed-clothes with arms rigidly extended. She drooled from the mouth. Respiration stertorous, could be plainly heard outside the room. Pupils even, rather dilated. Tongue slightly coated. When asked to show it, and chin tapped with the finger, the mouth was slightly opened and the tongue very slightly protruded. In the afternoon another change came. She became much more restless, the limbs moved constantly, and her whole body twitched, her face worked and her eyes rolled, with staring expression. Several times it was thought that she was about to have another convulsion, but she did not. She attempted to sit up in bed once or twice. Her breathing could still be heard outside the room. She did not show any intelligence whatever except when the baby was mentioned. When asked what she would name it she brightened up and said, "Charlotte." It will be remembered that the child was a boy. Evening, T. 99.4°, P. 92,

¹ Reported at the meeting of The Suffolk District Medical Society, Section for Obstetrics and Diseases of Women, March 23, 1904.