of a small perforation the results were ideal. I attempted to close the perforation with sutures and was partially successful. I believe that if these perforations are closed at once they can be healed.

SUMMARY.

The points reached in this paper may be briefly summarized as follows:

1. Submucous resection of deflected nasal septi can be performed under local anesthesia with but relatively a small amount of pain.
2. This operation offers the most certain results in all deflected septi, whether in the cartilage or bony septum, or both.
3. The sagging back into the former pathologic position, as is often seen in other operations, notably by the method of Asch and by the use of the punch, can not occur with this operation. The offending area is removed, and hence is not susceptible of recurrence.
4. The correction of this condition by an operation without the necessity of employing splints places it well in the foreground from a humanitarian point of view, for, say what we will, splints are painful, do not always accomplish their purpose, and make the operation unpopular. Any operation which does away with their use can safely be accepted as a valuable step in advance.
5. The after-treatment with this operation has been cut down from four to six weeks by the old method, to two weeks at the most. It is painless, less apt to have sepsis, and with care perforation can be avoided.
6. It has been said that this method takes too long, but that can not be rightly charged to the operation.
7. In conclusion, this operation offers the most rational, the most certain and the most enduring results. It is not so hard to perform as it looks, it requires no special instruments beyond what are usually found in a rhinologist's armamentarium (except a Killian long-blade nasal speculum), and, lastly, with this operation we have been given a means of overcoming what has been, to a considerable extent, a reproach to rhinology, the non-successful septum operation.

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INSANITY AT PUBERTY.*

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Though pubertal insanity is rare it is important not only because many patients die and others are left permanently demented or imbecile, but also because in many of those who seemingly recover the attack is a warning of liability to mental breakdown later in life. Since the true cause of insanity is largely within the individual, is part and parcel of his mental makeup, depends relatively little on the mere accidents of his external life, his environment, and much on his ancestral history, and since the exciting causes merely give opportunity for insanity to arise, any mental abnormality occurring during the developmental period is of importance, however trifling it may seem in itself, as indicating mental instability or a tendency toward deviation from the normal, which under proper education may be corrected, but which if left uncorrected will certainly lead to disaster in the future.

Mental disease appearing in childhood, at puberty, during adolescence, or indeed at any period of life, indi-

cates that the patient possesses less than the normal power of resistance to stress, whether it be the mere ordinary wear and tear of life, the exhaustion of bodily disease, mycotic infection, or vicious habits. Persistent recurring somnambulism, outbursts of causeless violent anger, frequent night horrors and day horrors in children are all signs of nervous and mental instability which can only be corrected by the greatest care and wisdom in education. Since puberty is the first and greatest period of mental and emotional stress it is not remarkable that then insanity greatly increases in frequency. At this time also it begins more nearly to resemble the clinical picture seen in the adult. In childhood its manifestations are simpler than in the adult because the mental and emotional life is simpler. The mental life of the insane is based on perverted reminiscences of past experience and is rich or barren, simple or complex, as the previous life was full or empty. Complete dementia alone pulls down all ages and all intelligences to the dead equality of mindlessness. The insane child may suffer from maniacal outbursts, emotional or intellectual depression, hallucinations, transitory delusions, obsessions and imperative impulses, and he may, of course, from the violence of the disease, be left demented or imbecile, but he cannot present the rich growth of delusions shown by his elder brother. He who has never heard of kings can not have the delusion that he is a king, and only those who have had strongly impressed upon them the dogma of the unpardonable sin can believe they have committed it. He alone can think he is persecuted who has learned something of the real persecutions that exist in the world. The child cannot show the curious perversions of logic of the adult paranoiac because logic itself is only just beginning to appear in him. The adult chronic reasoning maniac often possesses rich wit, perverted yet real. The boy shows only an impish mischievousness. As gradually, at puberty and through adolescence, the emotions broaden and deepen, sexual feeling appears, pure egotism normally becomes less marked and intellectual judgment comes into being, insanity conforms more and more to the adult type.

The study of psychiatry has been much hindered in its progress by the fact that we arbitrarily confine insanity within very narrow limits and pay but little attention to mental symptoms outside its boundaries or too often content ourselves by explaining them on the ground of viciousness. Much seeming viciousness is real disease. Psychiatry needs for its material for study not only the inmates of asylums and hospitals, but also the world at large, both old and young, well and ill. Wise schoolmasters know more about the normal and abnormal development of children than many physicians and could throw much light on obscure problems of mental disease. Unfortunately many schoolmasters are not wise, but foolish, mere hearers of lessons and correctors of exercises.

The types of insanity occurring at puberty and adolescence are as numerous as the types of boys and girls. Everyone is probably a little unbalanced at this time. This is physiologic. It is associated with sexual development and dependent on it. The healthy boy of healthy stock, even though his environment may be far from the best, passes through this period successfully and finally reaches stable equilibrium, the other now begins to show signs of abnormal development which later will grow into some distinct form of insanity. Probably the most common type, though seldom seen by

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alienists, and but little studied because its victims rarely get into asylums, or, indeed, receive medical attention at all, is a slowly oncoming weakening of the mind without delusions or hallucinations, a mere gradually increasing disability for mental work, usually stopping far short of complete dementia. Every schoolmaster knows the type. A boy who before puberty was bright, learned quickly and was interested in all things which make up a boy's world, begins to be inattentive, learns less and less readily, loses all ambition, no longer wishes to do things, ceases to have interest in play, becomes asocial and physically inert. He may present no moral abnormality, indeed, frequently his moral nature is of the best. The difficulty is entirely intellectual. His final state is that of mild dementia coming on slowly, not the result of any acute infectious disease, nor of masturbation, but caused by an inherent, congenital inability of the organ of mind to withstand stress. He is born with potential power enough to develop up to puberty or the earlier years of adolescence and then dissolution begins. In mild cases dementia is too severe a word, there is only slight feeble mindedness, and the boy who gave promise of being a leader or at least a successful man becomes only fit to take a very subordinate place in the world's army of workers. In another type there is added to the mental defect, or, indeed, overshadows it, gross moral aberration. The child who was average up to puberty begins then to have outbursts of causeless anger, to be cruel, to forget all he ever learned of his duties to others, to chafe and fret under restraint, to lose self control, to be a creature of impulse and passion and a slave of bad habits. He may in power of reasoning be equal or even above the average. Many of the criminal class are of this type. They are rarely recognized as insane in their earlier years, but if they escape being hanged or the diseases which nature uses to kill off the unfit they eventually frequently die in asylums with chronic mania or some secondary dementia.

Another type, which has its beginning at puberty or early adolescence, though its full development is not reached till adult life, is the so-called original paranoia. There is no doubt that a clinical picture indistinguishable from original paranoia may appear in people whose childhood and youth showed no signs of mental disease, but frequently it is merely the natural development of a nature that from its conception was twisted, warped and abnormal. The boy normal before puberty then begins to be eccentric. He becomes vain of his ability, thinks he is of more importance than his parents and relatives, and that he is not treated with proper consideration. Sometimes he is a great student of many things, reading much and learning little, though, being plausible, he may deceive others as he deceives himself into believing that there is a great future before him. Egotism grows to such proportions that finally he believes he owes no duty to the world but everyone owes duty to him. All who live with him must give way to him. He must always have his way and for the sake of peace parents and brothers and sisters give it him. He has much religiosity but no religion. He day-dreams much of sexual matters, either with a sickly sentimentality or bestiality, or he may mix the two. He may have ideas of great inventions that never work. Soon or late he turns against the world that will not bother itself about him and being sure of his real greatness explains it by the delusion that people are persecuting him therefore. He thinks he must be great or people

would not abuse him. They are envious of him. In paranoia egotism reaches its maximum. It may be acquired but more often is congenital. Paranoiacs are as a rule like poets, born, not made.

In the above described types only the prodromal symptoms, if one may call them so, appear at puberty, the disease not reaching its height until adult life. Acute insanity also occurs at puberty and, though rare, is sufficiently frequent to be of interest. It may arise without any discoverable external cause, or may follow an acute infectious fever (especially typhoid), fright or excessive masturbation. The last, however, is often a sign of degeneration rather than a cause of insanity. The following is a typical case of acute mania, the exciting cause of which I could not discover:

CASE 1.—The patient was a boy 13 years old. His mother stated that he had always been healthy. He was a cash boy in one of the large stores and had worked hard. He was a reader of dime novels and a cigarette smoker, but had shown no sign of sexual feeling. He was brought to the Philadelphia Hospital in March, 1903. One week before admission he suddenly became violent. It was stated that previously he had shown no evidence of ill health, but his people are not intelligent and certainly are unobservant, and it is very possible that prodromal symptoms were overlooked. However that may be, he became suddenly violent, cursed and swore, complained of pain in the head, slept little and raved all the time. When I examined him I found a thin, pale-faced, frightened-looking boy with widely dilated pupils, dry skin, without fever, and with a strong pulse. The knee-jerks were large. He was very dramatic, gesticulating and pointing with his fingers. He talked unceasingly of Indians, burglars and murderers. He paid only momentary attention to questions asked him, sometimes beginning an answer but soon wandering off; more frequently he kept up his raving. He lived in his own world, and his train of thought was not influenced in any way by the things going on around him. He did not, as is usual, take up words or sounds or sights as a basis for his train of thought. He would eat food set before him, talking all the time, but never asked for it. At first he slept very badly, but later fairly well. He paid no attention to his bladder and bowels. His emotional state varied between elation and fright, but there was never mere depression. After a few weeks he began to improve. He would answer short questions, talked less and less about the Indians, burglars and murderers. He saw and paid more attention to what was going on around him. He did not pass through a stage of depression, but went directly but slowly from the period of excitement to that of normal life. In about three months he regained health.

CASE 2.—Another boy, also 13 years old, is probably best classified as a case of acute confusional insanity. He had arrived in this country from Russia only a short time before his admission to the hospital, having made the journey alone. Whether his illness was the result of homesickness and fright at being alone so long or whether there was some mycotic infection is impossible to determine. We obtained only a meager history of the onset of his illness. It appears that on his arrival in Philadelphia from New York he appeared frightened and excited. He understood little that was said to him and talked incoherently. At times he would sing. He was somewhat violent at times, but could always be controlled. He would not eat. On admission to the detention ward he was highly excited, continually shouting, singing, whistling. By the time he was transferred to the insane department, a week later, he had become much quieter. Apparently there had been some slight improvement in his mental condition. Though excited and at times noisy, and though he had still to be fed with a stomach tube, his attention could be held long enough for him to answer a question. He remembered that he had been seasick on the journey across the ocean, but did not remember being in his uncle's house. He did not remember being brought to the hospital. Indeed, his mind was entirely blank concerning everything from the time of his arrival in New York until he found himself in the hospital a couple of

days before the examination. (His relatives stated positively that he seemed entirely well on his arrival at New York, so it would seem that his illness obliterated all memory or at least power of recollection of events that had happened during some days previous to the onset of his illness.) It must not be thought that he made the statements above given consecutively and quietly in answer to questions. On the contrary, he was very confused and excited during the whole time, and only now and then could hold himself in enough to talk coherently for a minute or two. He improved a little for several days and began to sleep well, though he still had to be fed. Very soon, however, he became excited again, and later stuporous and very weak so that he could not stand. Finally, four weeks after the onset of his illness and while still stuporous, he had a violent nose-bleed and died in a few minutes. For several days before death his gums were slightly swollen and oozed a little blood. His urine was free from albumin, sugar or casts. It was acid and of a high specific gravity (1034). A blood examination a week before death revealed 5,270,000 erythrocytes, 14,000 leucocytes and 72 per cent. hemoglobin. At necropsy the brain was much congested throughout. There was marked congestion of the trachea and bronchi. The lungs were congested and in places carnified. There were some old slight pleuritic adhesions. The stomach contained about six ounces of milk and eggs, but no blood. There were a few pinhead-sized submucous gastric hemorrhages. The thyroid gland, kidneys and intestines were normal. I confess I am entirely ignorant of the exciting cause of his illness. Whether it was the mental shock resulting from a young boy traveling several thousand miles and suffering a large part of the time from seasickness or whether what he called seasickness may have been some acute infectious fever is, of course, indeterminable. The pathologic condition found in his lungs arose, I am sure, after the onset of his mental symptoms.

The influence of mental shock in causing insanity in children is shown by the following case:

CASE 3.—The patient was a schoolgirl 14 years old. She had always been a nervous, delicate child, but was bright, active and full of energy. One day she was almost run over by a carriage. She was not injured physically, but was much frightened. She ran home and fell in collapse in the hall. She was kept in bed two weeks, during which time she was in a state of constant terror. She then improved a little and was allowed to get out of bed, but when I saw her, about five months later, she was still ill. She was afraid to be left alone or in the dark. She had frequent attacks of weeping and was greatly depressed, sitting for hours saying nothing and answering questions only in monosyllables. Whereas previously she had been fond of reading she now cared nothing for books and could not be taught anything. She never played and never smiled. Her expression was vacant. She knew perfectly well where she was and who she was, had no delusions or hallucinations and answered questions intelligently, but she was listless and inert and took no interest in anything. Her memory for recent and remote events was good. Her appetite was poor, her sleep troubled. Physically she was pale and thin, with cold bluish-red hands and dilated pupils. The deep reflexes were exaggerated. I advised that she should be sent to the country, fed on milk, eggs and vegetables, made to take outdoor exercise and given long hours of rest. What the result was I do not know, because she dropped out of my sight.

The acute infectious fevers, chorea and acute articular rheumatism are responsible for a large number of the cases of mental disease occurring during childhood, puberty, and adolescence. Whether mycotic infection or the exhaustion consequent to disease is the direct cause is still undetermined. Probably both act. Certainly the mental symptoms that occur early in the course of fever are directly caused, sometimes by the fever itself, sometimes by bacterial poisoning. In the later cases beginning during convalescence mere exhaustion and malnutrition of the brain is a sufficient cause. Post-febrile insanity is so infrequent that it is impos-

sible to state with any certainty which one of the infectious fevers is most liable to be followed by it. Scarlet fever, measles, and typhoid fever seem to be the most important. In typhoid fever delirium is really a symptom of the disease. Almost no case of any severity escapes it. The more dangerous cases are those in which insanity begins during convalescence. Sometimes the only symptoms are permanent weak-mindedness or marked imbecility. The amount of mental defect left varies greatly. There may be only slight obtunding of the faculties, a boy previously bright becoming dull and ordinary, or imbecility may be so great as to need permanent institutional treatment. On the other hand the patient may pass through an attack of mania, melancholia or stuporous insanity and recover or be left with more or less dementia.

Since Kraepelin's extensive and exhaustive studies, much has been written on the subject of dementia precox. It has become a very inclusive title, taking in almost all types of insanity occurring during puberty and adolescence and not a little of the insanity of adult life. It surely is not a distinct and definite disease as are paresis and typhoid fever, but serves a purpose in grouping together certain cases more or less similar in clinical aspect. The following case may be classed here as conveniently as under any of the heads under which insanity accompanied by stupor has been put.

CASE 4.—The patient is a white, native American boy, 14 years old, who was admitted to the Philadelphia Hospital in September, 1904. His mother stated that in July she noticed that he was acting strangely. He would take off his clothes and wander about the house. He slept badly and passed a large part of the night walking aimlessly up and down stairs. Soon he became taciturn and ate but little. A few days before admission to the hospital he became excited, accused his mother of poisoning him and refused to eat. When he was brought to the hospital he was well nourished. He talked little, saying he was sick and had had pains all over his body for about a week. He said nothing about having been poisoned. He was stubborn and rarely answered a question. He would take food, but never asked for it. He lay quietly in bed most of the time, but sometimes wept and whimpered, for which he gave no explanation. His pupils were widely dilated. The knee-jerks were absent. The eye grounds were normal. In November he suddenly became stuporous. He lay perfectly quiet, paying no attention to anything, passed urine and feces in bed, made no attempt to swallow food put to his mouth, and showed no sign of sensibility except that if a leg or arm were sharply pinched he would withdraw it. He obeyed no commands, however simple. Talking to him caused, as I have frequently seen in other patients, great dilatation of the pupils. The knee and Achilles jerks were absent. The plantar jerk was normal and the abdominal reflexes present. There was no rigidity of the spine, but any attempt to open his mouth to feed him caused him to hold it tightly shut. Sometimes he was cataleptic in slight degree, but most of the time a leg or arm raised in the air fell so soon as support was removed. He rapidly lost flesh and color and became much emaciated. His hands became clammy and blue. He remained in this condition of apparent stupor until January 3, when for the first time he began to chew food put in his mouth. January 28 he began to talk, saying he was hungry, and asked for milk and a banana. Next day when another boy patient asked him how he was he swore roundly. As yet he would not answer a question or obey a command. Almost a week before beginning to speak his hands resumed their natural color and he put on a little flesh. By March 12 he began to talk more, would feed himself, would obey commands and answer questions and ten days later he was perfectly conscious, was interested in things around him, talked like a normal boy and ate well. He had gained much weight and color, but was so weak that he could not stand alone. He remembered and related to us many things that happened in

the ward during his apparent stupor. When asked why he had refused to talk for so long he said he didn't know. He guessed it hurt him. He rapidly improved in strength and to-day (April 22) is a fair example of the average street boy—bright, tricky, and with none too much moral sense.

The most interesting symptom in this case was the stupor lasting about three months. Stupor is an inappropriate name for the condition, but its use has become so universal that it probably would now be impossible to displace it. Stupor should mean a condition of stupidity with great but not complete obscuration of consciousness. This boy's condition was not loss of consciousness, but absence of evidence of its presence. As a matter of fact, he was conscious all the time, as is proved by the fact that he had a clear remembrance of what occurred while he was apparently unconscious. His condition was probably caused by aboulia, a paralysis of the will, an inability to will to do anything. In some patients refusal to talk, to eat and to obey commands is surely dependent on a delusion that they can not or must not eat. Sometimes, indeed, after recovery patients will so explain the condition, but a patient's reason for his previous conduct is not always to be accepted as accurate. As a rule the apparent stupor passes off suddenly after sleep, but in this boy the return of normal mental function was slow, and occupied many days. Sometimes the condition lasts many months as in a young man at the Philadelphia General Hospital, who has been in apparent stupor for two years. Sometimes also there may be long periods of stupor alternating with periods of more or less normal consciousness.

When cases of general paralysis were first reported as beginning at puberty and adolescence much skepticism was expressed as to their genuineness. To-day, however, it seems proved that though very rare, paresis may occur at an early period in a child whose parents are syphilitic. The influence of other chronic organic brain diseases in causing insanity in children and youths has been studied but little.

CASE 5.—One patient I have seen could be classed roughly as an imbecile but I believe his illness has been caused by some slowly oncoming organic brain disease. He is now 16 years old and his present illness dates from his twelfth year. He was healthy at birth. He was breast fed for eleven months. He began to walk and to talk at the proper time and developed normally until the twelfth year. Then he began to suffer from headache. He was taken from school a year later on account of his health. He began to fail mentally and several years later it was noticed that he was awkward in the right leg in walking. He continued to complain of headache, became mentally weaker and hard to manage. When I examined him he showed some spastic palsy of the right leg with flat foot, abortive ankle clonus on the right side, and increased knee jerks on both sides. He had no other sign of physical disease except some slight post-nasal adenoids which were later removed without influencing his mental state. The eye grounds and visual fields were normal and permit me to say, for the sake of those who believe refractive or ocular muscular disturbances cause all ills, that two excellent oculists could find no excuse for treating him. He was rather short for his age but of good weight and color. Mentally he was very deficient. He could scarcely read. He showed no evidence of sexual feeling. He had no boy friends, indeed scarcely any acquaintances, because he always quarreled with them. He had frequent attacks of anger but was never sullen. His memory for remote events was good but for recent occurrences very poor. Some things he had done two days before he had no remembrance of. He was never cruel. He was clean in his person but careless in dress. He was entirely self-centered and showed no affection for his parents. He was physically lazy and took no interest in outdoor sports. In short

he is to-day rather a high grade imbecile but I think the cause is some unusual and obscure form of organic brain disease. The whole course of his case has been slow and did not result from any acute infectious fever or indeed acute disease of any kind. There is no history of parental syphilis and he does not show any physical sign of it and bore anti-specific treatment only well enough to make that test of no value.

There is not time to discuss the occurrence of acute insanity in imbeciles. It is not infrequent and may come on at any age, but most usually at puberty or during adolescence. One of the most important of the mental diseases is hysteria. It is customary to arbitrarily separate it from insanity or to speak of hysteria and hysterical insanity as if they were two distinct things. As a matter of fact hysteria is a disease of the organ of mind quite as much as mania. In children it usually manifests itself by convulsions or by those curious affections of the larger joints. In my own experience I have more than once found it very difficult to decide in youths whether a given case was one of hysteria or the stuporous insanity of adolescence. In the rare cases of insanity which are seen at the very beginning when the patient will submit to careful ocular examination the character of the fields of vision is of great aid in making a diagnosis. In dementia precox the field of vision is normal or else almost normal at the beginning of the examination and rapidly grows smaller as the examination continues. There is never complete reversal of the color field and tubular vision is never present. In hysteria contraction of the fields, if present at all, shows itself at the beginning of the examination and, of course, reversal of the fields is common and tubular vision not very rare. Hysteria is not followed by dementia and, indeed, we may say that in youths the attack is practically always recovered from. The importance of hysteria at puberty is that it is a sign of danger to come later in life.

The proper treatment of insanity at puberty is prevention, in other words, education. When we pay more attention to teaching self-control and clean morals, when those whom Nature intended to lead a quiet life do not try to lead the strenuous life, and when parents get wisdom insanity will greatly decrease. But these things are in the very distant future.

LIPOMA OF THE PRETIBIAL TRIANGLE OF THE KNEE.*

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Behind the patellar ligament is a triangular space formed by the capsule and the tibia. The tubercle of the tibia, to which the patellar ligament is attached, is situated about an inch below the joint-surface and half an inch in front of it, since the tibia slants backward from the tubercle to the joint. The capsule runs upward and forward from the upper border of the tibia, and is inserted into the lower edge of the patella. The patellar ligament is thus entirely outside of the joint, and so is the triangular space, the lateral boundaries of which are formed by the strong expansions of the fascia lata, called the lateral ligaments of the patella. This rough triangle is loosely filled with fat, which gives the capsule room enough to fold up during extension of the leg and allows it to conform to the condyles of the femur during flexion.

* Read before Chicago Medical Society, 1905.