INDEX OF SURGICAL PROGRESS.

HEAD AND NECK.

I. A Case of Trepanation for Cerebral Disease.—By P. Soderbaum (Upsala, Sweden). The patient, a girl eleven years of age, entered the hospital March 3, 1890. After having suffered from a slight headache three weeks before her entrance she had become paralyzed in her left arm, and, a week later, the paralysis extended to the left lower extremity and the left side of the face. Some groups of muscles were only paretic, while others, as the extensors, supinators and pronators of the hand, were completely paralytic. No disturbances of vision or sensibility. Neither traumatism nor purulent discharge from the ear or nose could be learned from the history of the case. The facial paralysis retrograded under the use of the iodide of potash and ice to the head of the patient. She could also walk somewhat. In the latter half of April convulsions set in without her losing consciousness. May 11th she had a convolution, after which she found that she could not walk. Continuous vomiting followed, and her intellect was less clear. May 25th she was completely somnolent, complained continually of being chilly, while her body, to the touch, felt reekingly warm. May 25th, an operation was performed. The cranium was resected temporarily, after Wagner's method, over the right sulcus of Rolando. The greatest length of the flap was 5 cm., and its breadth 4.5 cm. Nothing abnormal was discovered except that the pia mater was more turgid than usual in a small district. Several deep punctures were made into the cerebral substance by means of a tenotome, after which an unusual quantity of serum escaped. The surface of the brain was wiped off with sterilized cotton and the flap sutured without drainage. Healing took place by first intention. The vomiting ceased on the day of the operation. May 26th, the patient was clearer. All the movements of the hand were free and unimpeded. June 2d she could walk unassisted across the floor.
June 17th all the movements of the arm were easily and freely made. In the fall of 1891 the writer heard from her that the improvement had continued steadily to continue until now she is to be regarded as well. The writer thinks that a cyst must have been evacuated by the punctures during the operation; he also suggests the possibility of a circumscribed meningitis being present. It is possible that the right lateral ventricle was punctured and evacuated?—*Upsala Läkareföre­ningsförhandlingar*, bd. 26, s. 68.

II. Operation for Epileptoid Attacks. By P. Söderbaum (Upsala; Sweden). A young man, nineteen years of age, when five years old fell and struck upon his head. When he reached the age of eight he began to have vertiginous spells; recently, besides this he had presented attacks of unconsciousness nearly every day, and, once, a typical epileptic attack. Six and a half centimeters above the left mastoid process an indentation of the bone was discovered, which extended five and a half centimeters upwards and three to five centimeters backwards. This spot was soft, and pulsated simultaneously with the heart. At the operation this portion was found to be bare of bone and to be a defect, filled with a membrane, (the pia mater,) which was tense with fluid. This was incised. Posteriorly the brain was found to be oedematous to a certain extent. The cerebral mass was scarified and found to be apparently normal. The wound was tamponed with iodoform gauze, and the skin sutured over this. The temperature rose during the first two days; the subsequent course of the wound was afebrile. Two days after the gauze was removed, when healing by first intention followed. Three pronounced epileptic attacks were observed on the first, second and fourth day after the operation. For nine months he was free from his attacks, when he had two, separated by an interval of one month.—*Upsala Läkare­före­ningsförhandlingar*, bd. 27, s. 39.

III. Osteoplastic Resection of the Cranium for Trauma­tic Epilepsy. By Dr. Benda (Berlin.) October 29, 1890, the writer did an extensive osteoplastic trepanation of the cranium for severe traumatic critical epilepsy in the left parietal region, with re-
moval of a portion of the cortex, according to Wagner's method; and
the permanently favorable result, of over five months' duration, he
thought, justified the presentation of the patient.

The cannoneer, Wesz, of the second regiment of field artillery,
who was formerly entirely well and with no neuropathic hereditary
taint, was thrown from his horse, and striking upon the frozen ground,
received a wound upon the left parietal region which soon healed,
without medical attention, leaving a cicatrix 2 cm. in length. This
happened about Christmas, 1888. For one and a-half years he was
free from any trouble, beyond headaches appearing now and then.
May 6, 1890, he suddenly fell, while unsaddling his horse, and was
carried unconscious into the hospital. Here he presented continuous
headaches, vertiginous attacks and an apathic state, with petulance and
whining. The attacks of vertigo increased in number and passed into
fainting spells, followed by trembling of the extremities. Later
hysteric attacks, characterized by loud crying, sobbing and foolish
behavior, were observed. After four months, September 4, a severe
and general epileptic attack made its appearance, which was of several
hours' duration, with four less severe subsequent attacks during the
next few days. September 15th it was first remarked that the spasms
began with trembling in the right foot, to be continued gradually as
clonic (Zuckingen) in the right leg, and tonic contraction of the right
arm, and finally to end as weaker contractions of the muscles of the
opposite side of the body. Transient hemiparesis of the right lower
extremity followed the attack. The following day a similar attack
set in, when the quivering of the muscles of the right leg were
accompanied by similar ones in the right arm. Then there
succeeded a hysterical period of fourteen days' duration, which was
free from attacks; this was followed by one of four weeks' duration,
in which one to two spasms daily regularly made their appearance.
These were partly hysterical and partly epileptic in character. The
former in the shape of hysterical attacks of anxiety and rage, as well
as hallucinations; the latter in the form of a right-sided hemiparesis,
ascending to the leg and arm from the foot and sometimes passing
over on to the opposite side, together with aphasia. In consequence
of these frequent and violent attacks, which were uninfluenced by
either the iodine or bromide of potash, the patient began to lose in strength and his mind to fail. This case, though marked by a hysterical state, presented all the characteristics of traumatic cortical epilepsy requisite for operation, as laid down by V. Bergmann in his work, "Die Chirurgische Behandlung der Hirnkrankheiten." The constant appearance of the spasms in one group of muscles, their distinct involvement in the attack, the extension of the spasms on the same and opposite sides were remarked, and finally the hemiparesis of those muscles first attacked completed the required indications. These, with the rapid decrease in bodily and mental strength, seemed to demand an operation at once.

October 29th the smoothly shaved skull was prepared for operation, the sulcus Rolando was located by Köhler indicator: at the anterior median circumference, where the motor centre of the leg was supposed to be, a cutaneous flap, 11 cm. in length and 9 cm. in breadth was formed, which included the cicatricial and central sulcus; the base, 7 cm. broad, being situated over the ear. The edges of this flap were retracted 1 cm. and a bone-flap chiseled out from under this, the bone at the base being cut with a narrow chisel lying flat upon the bone. The flap, consisting of bone and scalp, was loosened and thrown back. As neither the bone nor dura mater presented anything abnormal, the latter was incised by a cross-cut and the brain exposed. The greatly hyperæmic and pulsating cortex, in which the single convolutions and sulci could be recognized with difficulty, presented nothing abnormal, and therefore the motor centre of the leg was sought out by means of the strong faradic current while the patient was deeply anaesthetized. The arm-centre and that of the trunk-muscles was found, while the leg-centre was only discovered after chiseling away a zone of bone, 1½ cm. in breadth at the median and posterior portion of the defect. The centre, a piece of cortex of the size of a nickel, was incised to the depth of two and a half millimeters, the hemorrhage being stopped by ligaturing two veins of the pia mater in the region of the arm centre. The wound was then tamponed with iodoform gauze, the flap laid over this, and dressed with an antiseptic bandage. On awakening from the anaesthetic the patient was bright, yet his right arm was completely paralyzed except
his thumb, and the right leg hemiparetic down to the knee. The wound healed uneventfully, if one except a slight rise of temperature of two days' duration. After two days the tampon of iodoform was removed, the soft parts closed by sutures and the cranial defect drained at two opposite points. In the course of seven days the wound had healed by first intention, and in fourteen days the drainage openings had also closed. On the fourteenth day after the operation the paralysis of the right arm suddenly retrograded, so that first, within three days the muscles of the thumb, the biceps and deltoïd, then the flexors of the fingers and hand, subsequently the extensors, supinators and shoulder muscles, and finally the interossei, resumed their functions. On the contrary, there arose for several weeks nervous disturbances which gave rise to the fear that the epileptic attacks would set in again. These were restlessness, sleeplessness, tearing pains in the arm and shoulder, a sensation of the right side of the face being asleep, which was also present in the right side of the body; also a peculiar disturbance of speech, which appeared from time to time in the evening, and lasted about one-half hour. This was apparently due to aparesis of the hypoglossus; finally a hysterical attack, provoked by anger, which set in January 20th, and was terminated by slight contractions of the right leg. Recently the patient has been very rapidly progressing onward to recovery; since then he has not had the slightest indication of either an epileptic or hysterical attack, is intelligent, quiet and tractable; he is in the best of health, and has been on a furlough for two weeks without any harmful results. The only disturbances which remain are a very slight weakening of the strength of the right arm, which, measured with the dynamometer, shows a difference of $\frac{3}{4}$ between the left and right; further, there is a slight sensation of numbness in the right curvature of the ribs, the right knee and the anterior portion of the right ring finger. He also complains of tiring easily after mental exertion, as reading, writing, etc. The patient was discharged as an invalid.

In the discussion following the report of this case Professor Bruns, of Tübingen, referred to a case where he performed trepanation for cortical epilepsy, dependent upon an apoplectic cyst of the size of a hazelnut. The attacks ceased for three months to recur.
V. Bergmann, of Berlin, would emphasize the point that one can only reckon on success in those cases where the typical picture of Jacksonian epilepsy is present.

Braun, of Königsberg, mentioned a case of cortical epilepsy following injury of the left parietal region, where he operated; he did not remove a portion of the cortex, as a small sanguinous cyst was discovered and removed. The operation was unsuccessful. A second operation was also without result. The epileptic attacks continuing, a third operation was done. As the spasms always began in the right thumb, this centre was sought out by the electric current and extirpated. After this the patient made a good recovery, which was confirmed as permanent after several months. Hence he thinks it justifiable to remove the cortical centre, even if there be discovered nothing abnormal in it.—Verhandl der Deutsch Gesellsch für Chirurg, XX Congress, 1891.

IV.—Osteoplastic Operation for Bony Defect in the Cranium.—Dr. By SCHÖNBORN (Würzburg). This case which the writer presented at the Twentieth Congress of the German Surgical Association is remarkable on account of the large defect which was successfully filled with osseous tissue.

The patient, Chr. Schl., eighteen years of age, was struck June 7th, 1890, by the iron bar of a hand-windlass, and both frontal bones fractured, with depression of the fragments. The patient became at once unconscious for a short time, recovering soon after, with some confusion of his senses; short-lasting spasms set in and hemorrhage from nose and mouth. The cutaneous wound was enlarged at once, and the fragments, ranging from 1–6 cm. in length and 1–2 cm. in breadth, were extracted. The longitudinal sinus was lacerated; the hemorrhage was stopped by means of a tamponade. On the left side the brain, exposed, crushed and porridge-like, was removed and the dura mater cut into for 3 cm. on the opposite side for fear of a subdural haematoma. The wound was tamponaded with iodoform gauze. The wound pursued a completely aseptic course, while the condition of the patient improved at once. The wound cicatrized, though slowly, and was entirely healed by the end of August.
The site of the cranial defect, and its continual pressure by the patient's head-wear, led the writer to attempt its closure by osteoplasty, although the patient was entirely well and possessed of normal intelligence. November 18th, 1890, the cicatrix, which measured 14 cm., obliquely, and 2-4 cm., postero-anteriorly, and corresponded exactly to a corresponding irregular bony defect, was extirpated. The subarachnoidal space was opened several times so that cerebro-spinal fluid escaped. Then the operator cut a tongue-shaped cutaneous flap, after König's method, 25-26 cm. in length, and 6-7 cm. in breadth, on the vertex, and separated from the frontal defect by a span of a finger's breadth. The outer table was then carefully separated from the inner by means of a chisel, in the whole extent of the flap. Naturally one could not avoid splinting and breaking it somewhat. This flap, consisting of bone, periosteum and skin, and which exactly corresponded to the defect, was fitted in and secured by sutures. The wound on the vertex was at once covered by Thiersch's method. Both healed without any disturbance, and January 21st, 1891, the patient left the hospital with a firm and complete cranium.

He was seen again March 31, 1891, and the skull found to be of a normal form, the transplanted bony flap firm and unimpressible, and only projecting over the base of the defect at a small spot. The patient's intelligence was undisturbed. Unfortunately the cosmetic effect was not good, as the skin on the transplanted portions was covered with hair which projected low down into the forehead, while a broad and oblique scar ran across the vertex. Therefore, April 3, 1891, the frontal skin was retransplanted to the bare scalp, and the resultant frontal wound covered by grafts after Thiersch. Again this time the wound healed uneventfully, and the patient was presented to the Congress.

In the discussion of this case J. Wolf, of Berlin, related a case where a similar though much smaller cranial defect was filled. An army officer had made an attempt at suicide five years before, when he had shot three revolver bullets into his forehead, leaving a defect in the bone. This was of the size of a cherry and had a very bad appearance. The dura mater and scar had grown together. A vertical
incision was made directly through the cicatrix, another on the left of the defect, about 2½ cm. from the first. The underlying bone was chiseled loose and the whole pushed over into the defect. As it was not quite sufficient to fill it entirely a second smaller piece, continuous with this bridge of skin, was chiseled loose and pushed into the remainder of the defect. Then both incisions were closed with sutures. The result of the operation was excellent. The bony tissue healed permanently, and the forehead became completely smooth. This case was one of three cases of osteoplasty successfully operated upon by the speaker according to König’s methods in which excellent results were obtained.

V. Eiselsberg, of Vienna, in September of 1890, had opportunity to cover a cranial defect of the size of a five-mark piece, which remained after extirpation of a carious piece of bone. He proceeded according to a method which had shortly before been described by A. Frankel. A celluloid plate was so cut that it could be fitted into the defect with great pains and pressure, when it remained firmly fixed there. The cutaneous wound healed by first intention, and the patient has remained well up to now, half a year later.—Verhandl der Deutsch Gesellschaft für Chirurg, XX Congress, 1891.

V. Repair of Cranial Defects.—By K. G. Sennander, (Stockholm). The writer passes in review cranial osteoplasty, and mentions his second temporary resection according to Wagner’s method, which was done for epilepsy. The cranium was very thick; the external table and diploe were sawed through by means of Stille’s osteotome; only the internal table was chiseled away. Then he gives two cases where he successfully repaired two cranial defects. The first was that of a laborer, 31 years of age, who fell from a straw stack and struck his head upon an iron stake. Behind and above the left ear only a small skin wound could be found. The patient returned to his work, and seven days after he was found unconscious; he vomited and his pulse was 60. Taken at once to the hospital it was found that under the cutaneous wound the bone was broken and pushed into the brain, so that a circular hole, of 2 cm. diameter, was made out. This was enlarged with the chisel, and three quite large
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fragments of bone were removed, together with some smaller fragments. They had penetrated the dura mater and lay imbedded in the purulently infiltrated cerebral mass. The wound was irrigated and dressed antiseptically with iodoform and iodoform gauze, which was simply placed over the wound. The patient became conscious after the operation, but aphasic symptoms, chiefly amnestic aphasia and paraphlegia, persisted for two weeks. The cerebrum protruded and formed a hernia, which enlarged rapidly. The granulations were scraped away and the periosteum loosened around the cranial opening, which was three by two and a half centimetres in diameter. A lamella of bone was then chiseled from the anterior surface of the left tibia with the periosteum adherent, together with some extraperiosteal connective tissue. This was two to three millimetres in thickness and of exactly the same size as the defect. It was filled in with the periosteum internally, the scalp was drawn over it and sutured with deep sutures. Both the cranial and tibial wound healed by first intention. One month and three days after the implantation of bone the patient was discharged as well and able to work; the cranial defect was felt to be filled with firm and hard tissue. The same was true when he was again seen several months later. In the other case a defect of the size of the end of one's finger and situated in the right parietal region was filled with a piece of the internal table which was extracted from the brain into which it had penetrated two cm. at the time of the accident. Healing took place by first intention under a dressing. The patient—a peasant, 48 years of age—was examined two and a half months after the operation, when the defect was found to be completely filled.—Upsala Läkareföreningars förhandlningar, bd. 26, s. 319

VI. Enucleation of the Eye-ball, followed by Meningitis. By Fredrik Ramm. The writer records the case of a man, fifty-two years of age, who some time before had gotten a splinter of wood into his right eye. The splinter was removed and the wound healed with an adhesion between the iris and cornea. The eye was red, the conjunctiva chemotic, swollen, the eye-ball swollen as hard as a stone and painful. There was some photophobia of the other eye. Enucleation, under careful antisepsis was performed, and
in the beginning he improved. The day following the operation he had a chill, with rise of temperature and delirium. The cavity of the wound was thoroughly washed out with a 10 per cent. solution of corrosive sublimate, calomel given internally, ice-bags applied to his head and leeches employed. Forty-eight hours after death took place. The brain presented, at the necropsy purulent infiltration of the base and convexity. The right optic nerve was twice as thick as the left. No foreign body could be discovered in the enucleated eye.


FRANK H. PRITCHARD (Norwalk, O.)

VII. Malignant Disease of the Tonsils. By David Newman, M. D. (Glasgow). Sarcomatous disease is met with in the tonsils in a variety of forms, but the most common is the round celled or lympho-sarcoma, a most virulent disease, and one in which secondary formations most rapidly develop. Of the fifty-two cases collected nine were called round-celled and eighteen lympho-sarcoma, twenty-three of the cases were published simply as sarcomata. In both encephaloid cancer and in round-celled sarcoma the disease extends rapidly, the neighboring lymphatic glands become infested early and the surrounding tissues are speedily encroached upon.

In very few forms of malignant disease has operative treatment been less successful than in those instances in which the tonsil has been primarily attacked.

The cases may be divided into two classes, those in which operative intervention is justifiable either with the object of eradicating or of staying the progress of the disease, and those instances in which palliative remedies can alone be recommended.

Tracheotomy, in the cases submitted to operations, should be performed a week previously, and at the time of the operation the anaesthetic should be administered through the tube; when anaesthesia is complete the larynx should be plugged with a sponge. The different methods of operating are fully discussed, and the results have been out of 144 cases collected 56 have been operated upon. The incomplete methods of operating are all condemned as not holding out the least prospect of cures.
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Two considerations only can warrant operative measures, the hope of completely eradicating the disease, or of prolonging life and alleviating suffering.

Only five cases of non-recurrence of cancerous growth are known, and two others did not have local recurrence, but were attacked in other parts of the body.

In the sarcomata eight successful cases are recorded, but one suffered recurrence of the disease in the opposite tonsil, five years later from which she died.—Amer. Journ. Med. Sci., May, 1892.

VIII. Chloroform in Tracheotomy. By P. Geffreier (Paris). The author has tabulated 87 cases of tracheotomy performed under chloroform, from a study of which he deduces the following conclusions.

Chloroform is undoubtedly of value in tracheotomy in children and involves no more danger than it does in any other operation.

The surgeon or a skilled assistant should administer the anaesthetic, watching carefully its effects upon the respiration, and stimulating inspiration if necessary by tickling, pinching, etc.

If the respiration is uneven the chloroform should be discontinued and the operation performed as rapidly as possible.

The counter indications to the use of chloroform are advanced asphyxia, prostration from diphtheretic intoxication, and, in a less pronounced degree, decided cyanosis without difficulty in expiration, and slight cyanosis with difficulty in expiration. Neither slight cyanosis without difficulty in expiration nor the tender age of the patient should be considered as contra-indications.—Rev. de Chirg., December, 1891. Samuel Lloyd (New York).

IX. Primary Chondroma of the Hyoid Bone. By Prof. Ivan K. Spizarnyi (Moscow, Russia). The author communicates an extremely rare instance of new growth of the hyoid bone. [This is only the third case of the kind yet known in international literature. One of the preceding two, that of a primary chondroma in a woman, has been published by Dr. E. Boeckel in the Gazette de Strassbourg, 1862, the other, that of a metastatic cancer in a man with malignant disease of the oesophagus, by Dr. Peter in his Beitraege fur menschen
A generally healthy and well-nourished man of 25, a merchant, of a healthy family, was admitted to Professor N. V. Sklifosovsky's clinic on account of a slowly, but steadily growing cervical tumor, causing hoarseness of the voice with a laryngeal timbre, difficulty in swallowing solids, and embarrassment of breathing on lying on his back. The swelling had been first noticed by the patient about five years previously, but his voice had begun to occasionally become hoarse eleven years before his admission. During the last 5 months the vocal alteration had been constant, while there had supervened the other symptoms just mentioned. On examination there was found an insolvent, hard, knobby, oval tumor of the size of a very big plum, situated on the right side of the neck, just below the lower jaw, in the region of the horn of the hyoid bone. The integuments were non-adherent and generally perfectly normal. The thyroid cartilage was slightly displaced to the left. On examination through the mouth the right facial wall was found to be protruding toward the laryngeal introitum, while about the root of the tongue there could be felt a hard, knobby, slightly movable tumor of the size of a mandarine orange, which obviously constituted a part of the cervical neoplasm. The right tonsil was enlarged, the lymphatic glands just above the cervical swelling indurated. A hyoid new growth diagnosed, and extirpation was resolved upon by Prof. Sklifosovsky. The neoplasm was exposed by a slightly curved incision which commenced at the level of, and three cm. outwards from, the right oral angle to end at the level of the cricoid cartilage. The removal proved to be rather difficult and tedious, since on each attempt at lifting up the mass by means of grasping instruments its tissues at once gave away; in addition, the new growth was closely adherent to the lateral walls of the pharynx and larynx. Ultimately it was isolated, chiefly by a forefinger, and, after the resection of the body of the hyoid bone, close to the right horn, removed with the latter. The hemorrhage was but slight. The cavity was plugged with iodoform gauze, the tampon being dispensed with on the twenty-fifth day after the operation. On the twenty-ninth the patient was discharged with the wound soundly healed, normal breathing
and swallowing, and a considerably improved voice. The new growth measured $7 \times 6 \times 4\frac{1}{2}$ centimetres, and was surrounded with a connective tissue capsule. It proved to consist of myoline cartilage which, in the central strata, had undergone mucoid degeneration. The osseous tissue of the hyoid bone was tracelessly destroyed, the adjacent part of the bone body being altered with osteoporosis.—Khirurgitcheskata Lotosis, 1892, No. 2, pp. 186-93, with 2 figs.

Valerus Idelson (Berne).

ABDOMEN.

I. Cases of Pneumotomy for Gangrene of the Lung.

By G. W. Runenberg (Helsingfors, Finland).

1. The first case was that of a man, twenty-four years of age, who, one day in the spring, while eating, aspirated a piece of potato into his trachea. In September he presented consumptive symptoms and signs of a cavity in the apex of the left lung, together with extensive burrowing of pus out into the region of the left nipple. On opening the pus cavity a fistula was discovered leading up to the lower edge of the left rib, of which a piece was resected. A trial puncture into the lung revealed a slight quantity of pus. An opening was made into the lung by means of the handle of the scalpel and the fingers, as the pulmonary tissue was easily torn with the finger. No large cavity could be found; the wound was tamponaded with iodoform gauze. The patient's condition improved after the operation; the purulent discharge ceased and the fistula healed. The physical signs of the apex as well as a profuse purulent secretion, although it had lost its gangrenous odor, showed that a cavity was still present. As the general condition of the patient improved and he wanted to return home, while the cavity showed a tendency to heal, he was permitted to go.

2. The second case was that of a man greatly run down, who was admitted to the hospital with terribly putrid expectorations as well as symptoms of a large cavity in the lower lobe of the right lung. Trial puncture evacuated 100 ccm. of a penetratingly putrid fluid. On the day of the operation this fluid was found to have leaked through
the track of puncture and produced a gangrenous emphysema. A portion of the eighth rib was resected below the scapula and the adherent layers of the pleura punctured with the thermocautery. A large cavity with smooth walls was discovered containing gangrenous fluid and loose gangrenous pulmonary detritus. Although the gangrenous expectorations ceased and the temperature sank, the patient perished the third day after the operation from septic intoxication. At the necropsy the cavity was found empty, but in its vicinity were found another gangrenous focus of the size of a hen's egg, together with two similar and smaller ones in the same lobe.

3. The third case was that of a gangrenous empyema, due to a large gangrenous focus of 8–10 cm. diameter, situated on the surface of the lung. The usual operation for empyema was performed, with resection of the eighth rib in the left scapular line; the gangrenous spot cast itself off and, after seven weeks, the patient was completely well.—Finska Läkaresällskapets handlingar, bd. 32, s. 62–65.

II. A Case of Pyothorax Subphrenicus; Operation; Recovery. By J. W. Runenberg (Helsingfors, Finland). The writer communicates a case of subphrenic abscess, operated on successfully in the clinic of Helsingfors, Finland. It was due either to a duodenal or gastric ulcer. The diagnosis, before the operation, was empyema of the pleural cavity. On resection of the ninth rib in the dorsal region and opening the pleura that cavity was found to be empty. A trial puncture revealed pus to be under the diaphragm, which was pushed up quite a distance. There had been complete dullness from the fifth rib down, in the mamillary line, the sixth rib in the axillary line and the lower angle of the scapula in the scapular line. The operation was interrupted and the wound tamponaded. After five days, when it was assumed that adhesions had formed, the diaphragm was incised and 1000 ccm. of thick pus of a disagreeable yet not gangrenous odor was evacuated. During the progress towards recovery pus appeared in pleural cavity, for which an operation for empyema was done. The patient eventually recovered entirely. The writer reviews the differential diagnosis of empyema and subphrenic pyothorax as well as the various operative procedures indicated. In both cases he would
make a high resection, and, in case an empty pleural cavity be found to either draw out the diaphragm and suture it to the edges of the wound at once, or do the same in two sittings.—Finska Läkaresällskapets handlingar, bd. 32, s. 87.

III. Case of Cholecystectomy with Formation of a Communication between the Duodenum and the Ductus Coledochus. By Dr. Sprengel (Dresden). The writer operated upon a woman, 40 years of age, who presented symptoms of obstruction of the gall-passage, and found a gall-stone in the ductus choledochus. By moderate force it could be pushed into a cavity which was supposed to be the duodenum. A few weeks after the operation the old symptoms returned worse than ever, while the stone was not passed per rectum. A second operation showed, after separation of extensive adhesions, that another stone was present, that it was not this time situated in the ductus choleduchus, but in the cystic duct, immediately before it passed into the enormously distended ductus choledochus. The stone was returned to the gall-bladder only after crushing it through the walls of the duct, when it was possible to examine, the ductus choledochus and hepaticus as far as the liver. A second stone was discovered in the hepatic duct. As this was pushed towards the duodenum the ductus choledochus was so distended as to threaten to rupture the cystic duct at the place of ligation. In order to save the patient's life a fistula was formed between the ductus choledochus and the duodenum. The operation was carried out with difficulty, and only succeeded on application of a sero-serous (?) suture, opening of the intestine and duct and uniting the openings by means of a continuous suture through the mucous membrane and the former seroserous suture. The recovery was uneventful. Four months after the operation the patient is free from all trouble.—Verhandl. d. Deutsch. Gesellsch. Chirurg., XX Congress, 1891.

IV. A New Method of Resecting the Stomach, with Subsequent Gastroduodenostomy. By Prof. Kocher (Berne). In 1887 the speaker gave utterance to the opinion that it would be advisable to perform gastroenterostomy after resection of the cancerous portion, instead of doing resection of the pylorus with direct union, as recom-
mended by Billroth. This was based upon two cases which, though they recovered from the resection, perished afterwards without any apparent recurrence of cicatrical stenosis. His experience since then has only confirmed this view. Excepting in especially favorable cases, it is not possible to adjust the duodenum into the large gastric wound left by the resection so that one can close the wound by sutures. This is certainly attainable by modified gastroenterostomy. The speaker opens the jejunum on the convexity and not lengthwise of the intestine, but across it, and adjusts the margins of the wound to the corresponding opening made in the longest diameter and on the anterior surface of the stomach in such a manner that only the margin of the wound of the descending portion of the intestine is directly united to the stomach wound, as is ordinarily done, while the border of the ascending portion, on the contrary, is joined to the aperture in the stomach, 2 cm. removed from the margin. Thus a valve is formed which allows the stomachic contents to flow into the lower portion of the intestine. In three of the latter cases it was found more advantageous, after resection of the stomach, to join the end of the duodenum in an especially prepared opening; this was once made on the anterior and twice on the posterior surface of the stomach, and running parallel to the wound in the stomach. The latter procedure is to be preferred, as it exposes the duodenum to the least traction, but it is only practicable when free access is possible to insert the duodenum in the gastric opening by means of a continuous and uninterrupted line of sutures. This method was first performed with gastroduodenostomy February 3, 1892.

Dr. Kummell has suggested an improvement which greatly facilitates the application of this procedure, namely submucous separation of the gastric wall before incision. This renders a very exact removal of the diseased tissue possible, for by gradually cutting through the serous and then the muscular coats, one is enabled to ligature exactly, and step by step, to convince oneself that the tissue is actually normal and removed from the neoplasm. Although first suggested for the intestine this modification is more applicable to the stomach where the hemorrhage is not so severe. In one of the cases, after preliminarily dissecting back the serous and muscular coats of the stomach, the
mucous coat was ligated, and opening of the stomach avoided. This is especially valuable in cancerous conditions, for in spite of proper and thorough irrigations and the employment of antiseptic solutions one is by no means insured against infection. In the other cases the mucous membrane tore, and an occlusive suture was rendered necessary—the usual procedure. This appears quite simple as one has but one line of sutures to do with, and can close the extensive wound from the lesser to the greater curvature without interruption by means of a two or three stayed suture until one has a secure covering of serous membrane. That this method of gastroduodenostomy is practical is proved by the fact that the three cases operated on by this method all recovered. Two cases where resection of the pylorus was done with gastrojejunostomy died, but of complications which do not disparage the operation. One perished from gangrene of the colon, due to extensive adhesions; the other from an improper step in the procedure, as behind the occlusive duodenal suture a loose, circular ligature was applied; this cut through and led to perforation. Out of eleven recoveries which Kocher obtained, nine were cases of carcinoma. Of these latter three are still alive; one patient was operated on three years ago (May 12, 1888), and is completely well. As she is the mother of a physician she is under careful surveillance.

Escher, of Trieste, in the subsequent discussion pointed out that Morisani, of Naples, employed the submucous method in resection of the stomach and intestine. He himself had operated on a case after this method, and was very much satisfied with the results.—*Verhandl der Deutsch Gesellsch für Chirurg.*, 1891.

V. Case of Partial Resection of Cæcum for Gangrenous Typhlitis; Recovery; Fatal Angulation of Intestine After Years. By G. Tillman (Halmstad, Sweden). The patient, thirty years of age, was first operated on August 2, 1885. He then had been suffering for four days from violent symptoms of intestinal obstruction. The operation revealed extensive gangrene of the anterior portion of the cæcum and the beginning of the ascending colon. Resection was done with difficulty, and sutures carefully applied; the operation lasted four and a half hours. The patient progressed slowly
to recovery in five weeks, and remained well for five years. October 10, 1890, symptoms of obstruction again made their appearance and an operation was done October 22d. On account of the former operation another resection was thought impossible, so enterectomy was performed and an intestinal fistula made in the right iliac region. The patient died towards the end of the third day. The necropsy revealed general peritonitis but no fecal effusion into the peritoneal cavity. The occlusion was found to be due to a kinking of the intestine at the splenic flexure of the colon. The small intestines were either adherent to the abdominal wound or matted together near the cœcum.—Nordiskt Medicinskt Arkivs Ny fjold, Bd. II., Aft. 1.

VI. Bassini’s Method for the Radical Operation of Inguinal Hernia. By Dr. Escher (Trieste). The speaker has operated in the past two and a half years on 53 cases of hernia, according to Bassini’s method, and he has come to regard this as the most rational and the best, although his results are not so brilliant as Bassini’s. This he ascribes to the relatively large number of complicated cases which he operated upon. While Bassini had 222 uncomplicated cases out of 262, he had only 35 uncomplicated out of 52, while 9 were incarcerated and 9 irreducible. Besides these the speaker’s cases also included hernias of various portions of the large intestines, and 5 had been incarcerated shortly before the operation. Of his cases, 34 healed by first intention (25 uncomplicated cases, 5 incarcerated and 4 irreducible ones), 17 by suppuration (15 uncomplicated, 3 incarcerated and 4 irreducible); 2 died (1 incarcerated and 1 irreducible). Both of these fatal cases are not to be ascribed to the method but to the circumstances under which they were operated on. One of them, a man 73 years of age, with an incarcerated hernia, died from pneumonia, and the other who suffered from fatty heart and a large hernia of the large intestine and omentum, after the operation perished from fatty embolism. In the remaining cases the speaker was able to trace the result in 28 cases, which had been under observation from 3 months to 2 years and 5 months after the operation. Out of these, in 25 cases he found a permanent cure, and only a recurrence in 3 cases, which followed in 4 and 9 months respectively. These latter the writer explains by atrophy of the abdominal muscles which rendered
the application of an exact suture impossible. He especially emphasizes the fact that all the patients were discharged without a truss, as the suture was sufficient, even under trying circumstances, for example, where the patient suffered from cough and influenza or ascites. He calls direct attention, as Bassini has recently done, to the employment of silk.

In consideration of the details of the method and complications of his cases, the speaker must declare separation of the sac from the spermatic cord as more difficult than Bassini claims it to be, as fully a third of his cases presented considerable difficulty in this regard. He follows Bassini's advice to begin the separation at the neck, where the elements of the spermatic cord are more easily recognized. Accidental injury to the cord led, in two cases, to castration; in three other cases castration was performed, once on account of sarcoma of the testicle, once on account of the vermiciform process being adherent to the testicle, and in a third case as it was impossible to isolate the cord. In three cases where cryptorchismus was found the testicle was replaced in the scrotum, where once, on account of improperly applied sutures to fixate the testicle, hemorrhage and suppuration into the vaginal tunic took place. Escher warns against too firmly compressing the deep layers of muscle and fascia by the sutures, as in two cases he saw infiltration follow, with consequent tedious suppuration in one of them. Finally he points out that in two cases he operated in two sittings, with advantage, tamponading the inguinal canal and then proceeding with the operation after 4 to 12 days. By this modification one may successfully operate on unfavorable, incarcerated and inflamed cases, radically.

Finally the speaker recommends the method as the most rational the best and the most certain, by means of which, with employment of the two sittings one may operate on complicated cases.

Wolfler, of Graz, opened the discussion by stating that experience shows that, in the radical operation of hernia, isolation of the hernial sac is often the source of the greatest difficulty, and on account of the frequent recurrences he would present an operation for consideration which he has employed in about fifty cases within the last three years without a single recurrence. This consists in: 1. Incision above the external aperture of the inguinal canal, with separation of
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the fibres of the external oblique; 2. Opening of the hernial sac, with cauterization of its entire inner surface by means of the thermocaustery. Application of an internal circular suture at the neck of the sac, according to Czerny; 3. Isolated sutures applied between the internal oblique and Poupart's ligament. The rectus muscle is then drawn over and sutured to Poupart's ligament. The obliquis externus is carefully sutured, leaving only a small aperture for the spermatic cord.

When the speaker began to use his method that of Bassini was not known. He regards his method as less dangerous; he has not had a single fatal case. Excepting two cases, which were accompanied by suppuration he has not had a case which did not heal by first intention. He intends to make an extensive report of the final results.

2. Bergmann, of Berlin, does not believe that there is a method, for the radical operation of inguinal hernia, which protects from recurrence, in male patients. In the male the opening for the passage of the spermatic cord remains, and becoming distended it may, at any time, give rise to recurrence of a hernia. This condition can only be remedied by simultaneous castration. The radical operation of inguinal hernia, in women, on the contrary has given him the best and most lasting results. In several cases, which he operated on several years ago, he has not seen a recurrence.—Verhandlt der Deutsch Gesellsch für Chirurg. XX Congress, 1891.

FRANK H. Pritchard (Norwalk, O.)

EXTREMITIES.

I. Operative Treatment of Irreducible Dislocations of the Great Toe and the Thumb. By JORDAN LLOYD, F. R. C. S. (Birmingham, Eng). The author reports two cases; (1.) The first was a backward dislocation of the great toe operated upon after unsuccessful attempts at reduction. A mounted man, aet. 40, fell with his horse, his right foot under the animal in such a way that its entire weight came on to the toe of his foot with the foot in a vertical position. On admission to hospital the right great toe was found completely dislocated on to the back of the metatarsal bone; slightly abducted and flexed at the phalangeal joint. It could be moved
laterally without much pain; the rounded head of the metatarsal bone projected prominently in the sole of the foot, the skin being stretched tightly over it. Attempts at reduction by traction and manipulation under anaesthesia were entirely unsuccessful. On the following day the limb was duly exsanguinated, and a 2-inch vertical incision made, with its centre over the head of the metatarsal bone, which lay immediately beneath the skin. The head of the bone was found between the heads of the flexor brevis pollicis muscle, the internal head of which was about half torn across. The anterior ligament, with its imbedded sesamoid bones, was torn away from the metatarsal bone and had "shut back" behind the rounded head, constituting itself the chief if not the entire obstacle to reduction. The tendon of the flexor longus pollicis lay on the inner side of the metatarsal bone. Even after exposure of the parts it was impossible to reduce the dislocation until the anterior metacarpo-phalangeal ligament and the sesamoid bones had been completely divided by a free vertical incision made in their median line. Reduction then occurred at once, but recurred as rapidly until the wounds between the sesamoid bones, the capsule, and the muscle were sutured closely with catgut. No vessel was tied at the operation, although the tissues around were infiltrated with coagulated blood. Under aseptic dressings and immobilization a perfect cure was obtained in a few weeks.

(2.) The second case was an unreduced backward dislocation of the thumb, operated upon after four months. A girl, aet. 7, had slipped, catching her thumb against the side of a door. Immediate but unsuccessful treatment had been applied by another surgeon. After four months the thumb was found completely dislocated backward; the head of the metacarpal bone projected markedly forward, and was curved by a resistant layer of soft parts; the base of the first phalanx lay behind the metacarpal head, and was slightly abducted; the phalangeal joint was semi-flexed and readily movable. No pain had been complained of for several weeks. After sterilization and exsanguination of the parts a 2-inch incision was made over the front of the metacarpal head in the line of the thumb. Below the skin the bone was covered with newly organized fibrous tissue, which was divided and the articular surface of the metacarpus exposed; the
phalanx lay completely behind the metacarpal bone and had attached to its base the anterior metacarpo-phalangeal ligament, which had been torn from its upper attachment and had "shut back" behind the metacarpal head. The heads of the flexor brevis pollicis muscle had been torn apart and lay posteriorly to the metacarpal bone, where they had become attached by newly formed fibrous tissue. The anterior ligament was freely divided vertically at its middle, and after a few fibres of the internal head of the short flexor had been divided transversely, reduction was with little difficulty effected; the tendon of the long flexor was not seen—it certainly did not lie between the bones. The deformity recurred at once, but this was readily controlled by suture of the divided ligaments and muscle in front of the metacarpal bone. The wound was duly dressed and the limb put up with the fingers folded into a fist. The patient attained a satisfactory cure in a month, the movements being but slightly limited in comparison with the other limb.

In remarking upon the cause of irreducibility in fractures of this kind, the author particularly emphasizes the importance of the fact that the head of the bone pushes its way through the muscle above the level of the sesamoid bones, the anterior metacarpo-phalangeal ligament being at the same time torn away from its metacarpal attachment, and these two structures, which are closely incorporated with each other, "shut back" behind the protruding head and become closely applied to the anterior part of the articular surface of the displaced phalanx. The "shutting back" of these structures is due partly to their own elasticity and partly to the pull of the remaining attachments to them of all the short muscles of the thumb or great toe.—London Lancet, Febry. 27, 1892.

James E. Pilcher (U. S. Army.)

II. Bacteriological and Anatomical Investigations on Lymphangitis of the Extremities. By F. Fischer (Strassburg). Fischer, together with E. Levy, has subjected the statements of Verneuil and Clado, who found the streptococcus in lymphangitic abscesses and asserted erysipelas and lymphangitis were identical, to examination; not only lymphangitic abscesses, but also inflamed
lymphatic vessels were examined. Small pieces of inflamed lymphatics were excised, under all precautions, from patients who were received in the clinic, suffering from severe suppurative processes with simultaneous lymphangitis. These were inoculated, after careful comminution upon agar and gelatine plates. The result of the bacteriological investigation was, in eight cases of excised inflamed lymphatics, three times staphylococcus pyogenes albus, once staphylococcus pyogenes aureus, twice staphylococcus cereus albus, once bacillus coli communis, once a mixed infection of staphylococcus pyogenes albus and aureus. In two cases of typical reticular lymphangitis the staphylococcus pyogenes albus was discovered in both cases. The lymphangitis abscesses—eight cases were examined—presented four times staphylococcus pyogenes albus, three times a mixed infection of staphylococcus pyogenes albus and aureus, once a mixed infection of staphylococcus pyogenes albus and streptococcus pyogenes and twice streptococcus pyogenes. These facts prove that the view of Verneuil and Clado is not correct. Demonstration, by culture, of the presence of micro-organism in the excised pieces of tissue was easy, yet their microscopic demonstration was a task which required much time and patience. The inflamed lymphatic vessel is not entirely closed by a thrombus, and the micro-organisms are inclosed in the thrombus. The endothelium of the lymphatic is preserved, the wall of the vessel thickened and infiltrated with round cells; a small infiltration of round cells was also found around the capillaries. The results of the investigation may be recapitulated as follows:

1. Lymphangitis of the extremities is due to various micro-organisms of suppuration.

2. By entrance of the micro-organism into a lymphatic a thrombus is formed.

3. The same micro-organisms are demonstrable in the thrombus as are found in the original suppurative focus. The presence of the streptococcus pyogenes is no proof that lymphangitis is an erysipela-tous process, as no difference can be drawn between the streptococcus pyogenes and the streptococcus erysipelas.—Verhandl Deutsch Gesell-

lich fur Chirurg. XX Congress, 1892.
III. Acute Infectious Myelitis of the Upper End of the Femur.—By Max Jordan (Heidelberg). The writer separates infectious osteomyelitis of the epiphyses from that of the diaphyses, and thinks it justifiable for anatomical, clinical and therapeutic reasons. The anatomical difference lies in the different localization of the same process which, in the majority of the cases, attacks the growing bone. In the diaphysic forms the micro-organisms range themselves near the cartilaginous disc of the epiphysis and lead to the formation of pus, which extends further into the medullary canal and outwards to the periosteum, between which and the bone, it continued to progress, often with such intensity as to produce necrosis of the entire shaft. As a rule, the non-vascular epiphysic discs offer an impassable barrier, and thus protect the neighboring joint; in some cases, running a violent course, it may be broken through and an effusion into the joint be a secondary, rarely enacted, consequence. In epiphysic osteomyelitis there is a primary localization of the inflammation in the articular end of the bone, i.e., between the epiphysic disc and the articular cartilage. The joint is early involved, as there is but one direction for the pus to extend, and that is in the direction of the articular cartilage. The anatomical relations of the upper femoral epiphysis are peculiar. As the cartilaginous disc is situated at the boundary between the head and neck of the femur one would think it proper, strictly speaking, to regard the head only as epiphysic. The writer, however, places the boundary in the region of the trochanter minor, and thus designates osteomyelitis of the neck as epiphysic, as Schede has done in one case. Embryologically, as is seen in the new-born, the head, neck and trochanters form the only epiphysis, while in the further growth of the bone the trochanter, major and minor, each receive a cartilaginous disc from which ossification is completed. Then the neck of the femur presents the same peculiarities of other epiphyses, in being, anteriorly completely and posteriorly chiefly, surrounded by the articular capsule and included in the joint. These anatomical factors render the clinical course of the disease comprehensible, for, as it runs its course near the joint or at the upper end of the femur an immediate envolvement of the joint is the consequence. Schede states that the articular affection either
soon, or even immediately, marks the symptoms of the bone, and in most cases its diagnosis is difficult, as the disease is usually not observed at first, but comes under the surgeon's notice as a severe articular inflammation. The diagnosis is of great importance in the treatment, for simple incision and search for the purulent focus in the bone by trepanation is by no means sufficient, as in the diaphysic form. For, to expose the focus in the bone the joint must be opened, and in order to remove it a typical resection must be done. The earlier this is done the less the destructive process is advanced and the better will be the chances for recovery with a functioning joint. Indeed, an early operation will find the joint nearly intact, enable one to extirpate the affected portion and in a relatively short time yield a perfect articulation. This affection is very rare. Schede and Stahl have communicated five cases of epiphysic osteomyelitis, of which only one ran its course in the hip joint. Müller has described sixteen cases from the clinic in Göttingen, all of which, excepting two, came under observation after the first stage had passed. Finally, Sannelongue, who has had an immense experience in this disease, regards this form as very rare. He has seen but two cases, and reports, a fatal one with luxation of the head of the femur backward. The writer describes, in extenso, two cases. In both the operation was the means of saving the patients' lives. They had been confined to their beds for five weeks, and were in such a serious condition that if left to themselves they would certainly have perished. The operation changed at once the entire scene, for, by radical removal of the primary focus the inflammatory process was extinguished, the fever fell at once, the pain disappeared, the albumen disappeared from the urine, and in eight weeks the patients were discharged cured. If one be content with simply evacuating the pus, though the direct danger is removed, the patient is exposed to the dangers of chronic suppuration and its reaction on the organism. In the first case of the author the functional result was not good. The necrosis was so far advanced that the resection was made low on the neck; the periosteum was destroyed, preventing regeneration of the bone. This was due to following the expectant treatment. The advantages of the radical method are demonstrated by the second case. The osseous lesion
was circumscribed and the periosteum intact. Therefore, the head was enucleated subperiosteally, leaving a periosteal cylinder, from which a new head developed. The articulation was nearly intact, the soft parts unchanged; neither fistulae nor abscesses were present. Finally, the muscles were well nourished and resumed their functions at once, after the process had healed. This is a matter of great importance, for, as is seen in chronic articular affections, especially the tuberculous, the muscles lose much of their functionability, though in chronic osteomyelites the shortening is less, while the vital prognosis is rendered less favorable by exposing the individual to the dangers of a chronic course. This speaks against Volkmann’s suggestion to make the resection through the necrotic portion and await demarcation. The earlier the resection the better will be the functional result. As there is no danger of a recurrence, no constitutional disease being present, the results of this treatment are permanent and favorable.—Beitrage zur klinischen Chirurgie, Bd. 7, Hft. 3 p. 493.

GENITO-URINARY ORGANS.

I. Treatment of Ectopia of the Bladder.—By Dr. Schlange (Berlin). In order to avoid certain disagreeable consequences, following closure of the congenital defect in the bladder by flaps, especially the formation of concrements and the appearance of cystitis, it is necessary to make the bladder from the mucous membrane alone. Hence, Trendelenburg proposed, several years ago, to loosen the sacroiliac synchondroses with the chisel, and then to approximate the edges of the wound and the stumps of the pubic bones until they touched. Such a procedure is quite serious under any circumstances. The writer has tried, with success in several cases, to approximate the margins of the defect in a simpler manner, namely, by rendering the recti muscles movable. An incision, 10–15 cms. in length, is made at the outer side of this muscle, on a level with the anterior superior spine of the ilium as deep as the fascia of the transversus, which is carefully avoided in order to prevent the formation of a hernia, and extending down to the pubic bones. The rectus muscle is also separated from the subjacent structures and the pubes. It is easily separated from the transverse fascia; its pubic attachment was separated by chiseling through the ascending ramus of the pubes, thereby
loosening the bone with the muscle attached. An attempt to make
an osteoplastic closure of the pelvic arch, as proposed by Neudörfer,
was impossible, on account of the bones being too small and drawn
upward by the muscles attached. The recti were so movable that
they could easily be sutured, after extensive freshening up of their
margins. Silver wire seems to be the best material for suturing, as it
will remain a long time in the wound without causing any distur-
ance by its swelling. The sphincter vesicæ should be left unclosed
only in those cases where too little of the vesical wall remains to per-
mit a reservoir to be formed; in such cases one may form a urethra
most easily, according to Thiersch's well known method. Where,
however, the vesical defect is relatively small and quite a voluminous
bladder is possible, the urethra should be formed at least in the pro-
thetic portion, similarly to the bladder, by freshening up and suturing
the edges of the defect. As after-treatment, the speaker recommends
tamponading the gaping abdominal incisions with iodoform gauze,
which, if the patient remains in a relatively good condition following
the operation, one may leave for even 14 days in the wound. The
writer then presented a 13 year old boy whom he had operated on two
years before by this method. The patient suffers from incontinence,
and has a fine fistula at the root of the penis, which he had when dis-
charged from the hospital. Since the operation he has been well, and
is now in a relatively satisfactory condition. Thiersch, of Leipsic,
observed, in the discussion, that the method of turning the skin
inward does not originate from him. He regarded the bladder
formed by Sch Lange as too small. If there be no vesical reservoir
then a sphincter is of no service.

Rydygier, of Cracow, tried Freudlenburg's procedure in a case;
the child died. In a second case he operated in two sittings; the
vesical margins were united, yet healing did not set in. In still another
case he operated after the same method as Sch Lange, including frag-
ments of bone from the pubic arch, which modification he regards as
very important. Sch Lange, of Berlin, in reply to Thiersch, stated that
he only sought to preserve the sphincter in those cases where much of
the bladder was present. Verhandl. d. Deutsch. Gesellsch. für Chirurg.
XX Congress.

FRANK H. PRITCHARD (Norwalk, O.)
II. Two Cases of Ruptured Bladder.—By P. A. Lloyd, F. R. C. S. (Haverfordwest, Eng.) The author reports two cases which occurred in the practice of Dr. Lediard, Surgeon to the Cumberland Infirmary. The first case was an extra-peritoneal rupture treated by suprapubic drainage. A woman, æt. 21, after a railway accident, found herself unable to stand or walk on account of inguinal and crural pain, although no bruises, or excoriations, or pelvic, or femoral injuries could be discovered. Complete anuria existed; catheterization drew off small amounts of bloody urine. After recovery from shock marked inguinal and hypogastric pains were present, especially on pressure. Abdominal poultices and opium were administered. On the third day peritonitis was evident, and on the fourth marks of contusion of the abdominal wall over the bladder; voluntary micturition reappeared and persisted at frequent intervals. On the eleventh day a tumor was noticed in the hypogastric region; dullness was present from the pubes nearly to the umbilicus, and a distinct edge could be felt at the upper limit of the swelling of the shape and appearance of the distended bladder. Hypogastric pain, fluctuation and purulent urine developed, together with troublesome vomiting and a temperature of 100° to 102.6°. On the thirty-first day, under chloroform, a two-inch median incision over the pubes gave exit to about thirty ounces of very malodorous purulent urine. Exploration of the cavity revealed, opening into the bladder close to the entrance of the left ureter, an aperture large enough to admit the tip of the forefinger, with round edges thickened and coated with phosphates. Flushing with hot boracic lotion and siphon drainage was applied, resulting in a complete cure on the one hundred and first day. The urinary functions resumed an entirely normal character.

The second case was an intra-peritoneal rupture treated by suture of the wound. A man, æt. 30, lying supine, received upon his abdomen the weight of a companion who was thrown from a vehicle. There was no shock and, at first, but little disability. He suffered from urgent desire but inability to micturate. Under chloroform by a lithotripsy evacuator and an aspirator about a pint and a half of bloody urine was drawn off. The next day patient presented an anxious expression, a small and thready pulse, a distended abdomen, and
an absence of urine in the bladder. Abdominal section by Mr. Page, of Newcastle, discovered a collapsed bladder behind the pubes with a star-shaped rent about two inches long on the posterior surface; this was sutured with catgut, but death occurred before the completion of the operation. A large quantity of blood-clots and urine was found in the peritoneal cavity and signs of beginning peritonitis were evident. —London Lancet, Feb. 6, 1892.

JAMES E. PILCHER. (U. S. Army).

III. Foreign Bodies in the Bladder. By Dr. ALEXANDER L. EBERMANN. (St. Petersburg, Russia). The author relates two interesting cases, one of which refers to a young lady who introduced into her bladder a bundle of false hair (for masturbating purposes). Some time afterwards she married and had two normal labors. Shortly after her second confinement she fell severely ill, which induced her to seek admission to a hospital. During her stay in the latter it was repeatedly noticed that she was voiding hairs with her urine. The lady's condition being hopeless, no attempt at the extraction was made by the author. Shortly after her admission the patient died. On the post-mortem examination it was found that the sojourn of the hair bundle had caused severe cystitis with the perforation of the bladder both into the vagina and peritoneal cavity. The other case is that of a middle-aged married merchant who, when visiting on business a strange town, and experiencing an ardent "call" to sexual intercourse, sought advice of some local residents of his acquaintance, the latter happening to be members of the famous Skoptzy sect ("self-castrating people"). The consultants advised him to the effect that he "should take a thin wax-candle from an ikona (a holy image), dip it into an image-lamp's oil, fasten a thread on the candle's end, and introduce the instrument into the urethra." The patient followed the suggestion, but, unfortunately, during his trying to extract the appliance from the canal, the thread gave way, and the candle slipped down into his bladder. The author, to whom the patient applied several months later, succeeded in removing through the urethra first the candle's wick, then several bits of wax, and lastly a stone of the size of a bean which had formed around a wax nucleus.—Vratch, No. 10, 1892, p. 245.

(VALERIUS IDELSON, Berne).
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WOUNDS, INJURIES, ACCIDENTS.

I. Ideal Dressing for Abdominal Wounds. By H. A. Kelly, M. D. (Baltimore). The author has for two years past used a dressing which hermetically seals the wound in a thin layer, with certainty preventing the invasion of pathogenic organisms from without. This dressing is easily made, simple, and always satisfactory. After closure of the incision, the skin, the line of the wound, and the sutures are dried, and two layers of sterilized gauze or cheesecloth, large enough to project five to ten centimetres (two to four inches) beyond the incision on all sides, laid on the skin. This is saturated with the following adhesive mixture, which is evenly distributed over the whole surface.

R Squibb's Ether, or Washed Ether, and Alcohol, absolute, equal parts.
Bichloride of Mercury (Merck's recryst.) enough to make
the solution . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .
[Anthony's] Snowy cotton, enough to make a syrupy consistence,
added in small pieces, stirring.

As soon as this is poured over the wound evaporation begins to take place at once, and the celluloidin hardens, gumming the gauze fast to the skin. To avoid delay in waiting for this to grow quite hard, and to prevent adhesion to the cotton applied above it, the whole surface is freely dusted over with a finely powdered mixture of iodoform and boric acid: 1-7.

The wound thus sealed with celluloidin gauze may be left untouched for a week or more, when the dressing should be softened with water, or more rapidly with ether, the gauze lifted off, and the stitches taken out.

If there are any signs of suppuration, as evidenced by pain, local tenderness and redness, associated with elevated temperature, the dressing should be removed earlier and the discharge of the stitch-hole abscess promoted in the usual way.

Sufficient cotton may now be heaped upon the abdomen to pad out the inequalities for the application of the bandage. Common cotton may be substituted for absorbent and prepared cotton, by simply sterilizing it in the Arnold steam-sterilizer. Amer. Journ. Obstet. Dec. 1891.
I. Cystorrhaphy for the Cure of Vaginal Cystocele. By Dr. Tuffier (Paris). Fixation of the bladder to the anterior abdominal walls (cystorrhaphy) is proposed by F. as a means of cure of vaginal cystocele. It may be performed as an adjunct to colporrhaphy, anterior elytrorrhaphy, and hysterorrhaphy or suturing of the uterus to the anterior abdominal wall. The feasibility of the operation, and its safety as well, was demonstrated upon animals preliminary to its performance upon the human subject. The operation is done as follows: The bladder is filled with from 250 to 300 grammes of a solution of boric acid, and an incision of the abdominal walls is made as if for supra-pubic cystotomy. The peritoneum is then separated from the bladder until that portion lying adjacent to the vaginal wall is bared. After partial emptying of the bladder the latter is drawn strongly upward and its lateral portions sutured to the abdominal wall. For this purpose 4 silk threads are passed through the bladder wall and then through the abdominal parietes. The left side is sutured first, to avoid some increased difficulties met with upon this side. Should the tension be considerable with danger of the cutting through of the sutures, the urachus at the summit of the bladder, after previous partial resection, may be likewise sutured with final closure by means of buried sutures of the abdominal wound; the dressing of the wound by iodoform gauze and tamponing of the vagina completes the operation, the latter being only removed on the 15th day, when the patient may be allowed to sit up. The sutures, in favorable course of the wound healing, may be removed on the 7th day. T. has operated by this method in 2 cases; the first subsequently suffered from a slight prolapse of the urethra, which was cured by an anterior elytrorrhaphy. At the end of 2 years, having been in the meanwhile under observation, she was found to be free from her former difficulties.—Annal. de Gynecol. 1890, T. XXXIV, p. 21.

II. A New Method of Treatment for Recto-Vaginal Fistula. By Dr. G. Felizet (Paris).—The method of F. is as follows: After passing a hollow sound through the fistulous opening
he passes the index finger of the left hand into the rectum, puts the perineum upon the stretch with the thumb, and splits the recto-vaginal wall in a direction upward and backwards, by means of a half-moon shaped incision, until the fistula is reached. In this manner 2 fistulae are formed, one being a vagino-perineal and the other a recto-perineal. The latter is now, as in the case of a common rectal fistula, split upon the hollow sound and packed with antiseptic gauze. The entire operation can be performed in 10 minutes, and requires neither freshening of the surface nor the application of sutures. The injurious effects of the rectal contents being removed in this manner, the original fistula heals spontaneously, assisted, it may be, by the occasional application of the solidstick of nitrate of silver.—Annal. de Gynecol. 1891, T. XXXIV, p. 17.

Geo. Ryerson Fowler (Brooklyn).

III. Hysteropexia Abdominalis Anterior Intraperitonealis in Retroflexions and Retroversions of the Uterus. By Dr. Lucian I. Chrostowski (St. Petersburg, Russia). The author details eleven cases of ventrofixation made by Professor K. F. Slaviansky in women aged from twenty-four to thirty-two. Nine of the patients had retroflexion, which in two was accompanied by extensive adhesions between the womb and the rectum, pelvis and appendages, while in seven the uterus was mobile. A tenth patient was suffering from retroversion with dense adhesions between the organ and rectum, etc. The eleventh case was that of a complete uterine prolapsus in a virgin. The operation was indicated by a train of intractable agonizing symptoms, including lumbar and hypogastric pains, obstinate constipation, dysmenorrhoea, menorrhagia, metrorrhagia, reflex neuroses of various kinds, etc. In three cases the operation was made after Leopold's method, in seven after Czerny's (vide the Annals of Surgery, September, 1889, p. 234), and in one after Jacob's. Its duration varied from twenty to forty minutes. The after course was always most satisfactory, the temperature never rising above 37.6° C., and the abdominal wound rapidly healing per primos. The patients were allowed to 'get up on from the fifteenth to the twenty-first day after the operation. In every one of the cases all the symptoms van-
ished tracelessly, the womb assuming a permanent position of a beautiful anteversiflexion. In none of the patients has any relapse yet occurred. In one case twenty-eight months passed since the operation; in three from twelve to twenty-one; in the remaining from one and one-half to nine.

The author was able to collect from international literature as many as 393 cases of hysteropexia for uterine posterior displacement (including Slaviansky's ten cases). An elaborate analysis of the series justifies him to lay down the following general propositions:

1. The best method of hysteropexia consists in a direct fixation of the womb to the anterior abdominal wall by means of horizontal stitches embedded within the abdominal wound.

2. The operation is indicated in such cases of laparotomy for disease of the appendages or for uterine tumors in which there is simultaneously present retroflexion or retroversion, giving rise to pronounced symptoms. Also in cases of fixed retroflexion or retroversion causing severe symptoms. And in such cases of mobile posterior displacement of the womb in which there are present otherwise intractable severe local or reflex symptoms.

3. Contra-indications for ventrofixation are identical with those for any abdominal section. The possibility of future conception does not contra-indicate the operation in question.

4. The procedure affords a reliable and radical means for curing the uterine displacement and for permanently freeing the woman from all the morbid manifestations.

5. The latter, however, frequently disappear but gradually.

6. In a majority of cases ventrofixation does not interfere either with conception or with a normal course of pregnancy, labor and puerperium. In some cases of gestation the womb may become detached from the abdominal wall, but even then, as a rule, no relapse of the displacement does occur after labor.

7. Ventrofixation does not give rise to any disturbances of the bladder.

8. The prognosis in cases of a pure and simple hysteropexia does not differ in any way from that of exploratory abdominal section. In
other words, the operation is entirely free from any danger, provided all aseptic rules are strictly observed.

9. In such cases where the procedure is combined with division of adhesions or with removal of diseased uterine appendages the prognosis is somewhat less favorable.

10. On the whole hysteropexia fully deserves to occupy a prominent place amongst the most valuable operations of modern gynecological surgery (cf. Annals of Surgery, October, 1890, pp. 311 and 313).—St. Petersburg Inaugural Dissertation, 1891-1892, No. 5, pp. 181.

IV. Foreign Body in the Vagina. By Dr. N. N. Mohilev (Russia). A woman of fifty applied to the Mohilev Lying-in Hospital on account of severe pain during defecation of considerable standing, to which incontinence of urine had added itself quite recently. According to her statements, about six years previously she had contracted uterine prolapsus. In order to correct the latter, a female friend of hers had taken a glass-stopper from a decanter, broken its stem, and introduced the stopper’s head into the vagina. "The home-made pessary had been worn by the patient ever since, successfully preventing the prolapsus and never causing any inconvenience until the time stated. On examination the foreign body proved to be firmly embedded in the upper third of the vagina, which was constricted and rigid at the level. The canal contained a number of calcareous concretions, some of them being as large as a nut. After some unsuccessful attempts the disc was ultimately turned edgeway, firmly grasped with forceps, and extracted, a quantity of sero-purulent fluid escaping during the operation. A subsequent examination revealed the presence of a vesico-vaginal fistula, situated 3 cm. above the external orifice of the urethra. Higher up, in the anterior poruit, there was found another slight slit-like opening leading into a purulent cavity whose anterior boundary was formed by the posterior wall of the bladder and the posterior by the wound. The latter was slightly enlarged and retroverted, the cervix shortened and flattened, the external os fully obliterated, the posterior vaginal wall traversed with numerous irregular fissures, while the mucous membrane of the
upper third of the canal was covered with a continuous crodyuidid deposit. The diameter of the stopper amounted to 5\(\frac{1}{4}\) cm. [The issue of the case is not stated. A case of a glass-disc remaining in the vagina for ten years was recently reported by Dr. F. L. Hayger: vide the Annals of Surgery, May, 1891, p. 371, Reg.]—Proceedings of the Mohislev Medical Society for 1891. 

Valerius Idelson (Berne).

V. The Indications for and the Results to be Expected from Supravaginal Amputation of the Cervix Uteri for Carcinoma. By Dr. Winter (Berlin.) The author remarks that in cases of carcinoma uteri total extirpation has, in the course of years, continued to become a more satisfactory and, as a rule, a more safe operation, and it is employed exclusively by the majority of German operators. The supravaginal amputation of the cervix, which was devised by Schroeder fifteen years ago, has been almost entirely abandoned, notwithstanding the fact that Schröder developed it into a safe method, and Hoffmeier has shown that the permanent results in cases of carcinoma of the vaginal portion are as good as those following total extirpation.

The author, however, advocates resort to supravaginal amputation in cases in which the carcinoma is limited to the vaginal portion of the cervix, and in these only, and supports his views by the experience of the University Gynecological Clinic of Berlin, in which, since 1878, 155 supravaginal amputations for carcinoma were done. Of these 10 died from the operation, 13 were lost from sight: there remained 132 available for statistics. Of these 80 suffered from relapse, 49 remained healthy longer than two years, and 27 longer than five years. No relapse is likely to occur after more than five years, so that about 25 per cent. of recoveries will represent the final result of supravaginal amputations. These results are not inferior to those obtained by total extirpation in similar cases. The mortality of supravaginal amputation: Olshausen, Fritch, Leopold, Kaltenbach and Schauta, out of 474 extirpations had 40 deaths—that is, about 8.4 per cent. for a series of operations extending up to the present time. Supravaginal amputation has a mortality of 6\(\frac{1}{2}\) per cent., and these deaths almost all occurred while the operation was being perfected.
Since the year 1884 650 operations have been reported, with only one death, and this was not wholly referable to the operation. Supra-vaginal amputation, therefore, should not be wholly discarded, since it is much less dangerous than total extirpation, and since the women may bear children without difficulty in the part of the uterus which is left, and since there are no dangers or sufferings which originate in the latter.

The number of the uterine cancers on which radical operations can be performed increases from year to year, with the progress of time, since the diagnosis can be made more accurately and earlier, and the methods of operation are continually growing more practicable. The writer has been able to prove this from the cases of the Berlin Clinic for Women, where since 1883 the percentage of cases operable has increased from 19 to 37. In general, however, to-day, in the great hospitals, on the average, about 25 per cent. of the women suffering from cancer undergo operation. Since about one-fourth of all the women who are operated on remain free from relapse it follows that about one-sixteenth or seven per cent., of these patients are permanently cured of cancer, while 93 per cent. of the sufferers continue to-day to perish of cancer as formerly.—Annals of Gynecol. and Pediat., April, 1892.

VI. German Statistics on the Prognosis and Treatment of Extra-uterine Pregnancy. Dr. Winter (Berlin).—Of 626 cases collected by Schauta, occurring during the years from 1876 to 1890, 369 recovered and 257 died, a mortality of 41 per cent. This was distributed as follows: In the first half of pregnancy 381 cases, 218 recovered, 163 deaths; in the second half of pregnancy 93 cases, 40 recoveries, 53 deaths; after the normal term of pregnancy 152 cases, 111 recoveries, 41 deaths; in 241 cases the cause of the affection was left entirely to nature, and of these 75 recovered, 166 died, the mortality thus being 66 per cent.; such cases, therefore, in the first half of pregnancy have a much more unfavorable prognosis than that of extra-uterine pregnancy in general, which has a mortality of 41 per cent., from which the conclusion may be drawn that the prognosis is better for those cases which are operated upon.
The most frequent spontaneous termination of extra-uterine pregnancy in the early months was rupture and hemorrhage into the general abdominal cavity; this occurred 128 times, with 121 deaths; the prognosis in such cases is, therefore, extremely gloomy. Twenty-two times rupture occurred with formation of hæmatocele; of these cases 8 died. In the second half of pregnancy death was caused most frequently by peritonitis, in consequence of decomposition of the foetal sac after death of the foetus. After the normal end of pregnancy the most frequent termination in cases which were left to nature was perforation of the foetal sac into the intestine, vagina or bladder, or through the abdominal wall; this most frequently occurred in the course of one or two years, but was delayed in some cases much longer, even up to ten years.

Treatment.—In recent years the treatment of extra-uterine pregnancy has become entirely surgical. Killing the foetus by electricity has not been accepted at all in Germany. Injections of morphine have only been employed, in any considerable number of cases, by Winckel, who has treated seven cases in this way, usually by injecting through the abdominal wall; two of these patients died and five recovered. In the early months, if the foetal sac has not yet ruptured and the ovum is living, all operators are agreed that the sac should be extirpated. If, on the other hand, the death of the ovum seems probable, as indicated by the expulsion of decidua, protracted hemorrhages, hardening of the tube and diminution of the size of the foetal sac, there is a division of opinion as to what should be done. Martin and Veit recommend the extirpation of the foetal sac in these cases also, supporting their opinion by a series of cases where, after such symptoms, rupture of the sac and fatal hemorrhage occurred. Other surgeons use expectant treatment for these cases. Veit deserves the most credit for establishing the operative treatment for extra-uterine pregnancy, by extirpation of the foetal sac. He operated 11 times in the year 1890; in 2 cases the ovum was living, in 9 it was dead; all the patients recovered. If the sac is ruptured and hemorrhage into the abdominal cavity has taken place, it is much more difficult to decide what course is indicated.
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Schauta recommends operation even under such circumstances, basing his opinion on his statistics:

Rupture, with hemorrhage in the abdominal cavity, without operation: 115 died and 7 recovered.

Rupture, with hemorrhage into the free abdominal cavity, with laparotomy: 19 died, 102 recovered.

These numbers are inexact, since in the cases which terminated favorably the diagnosis of extra-uterine pregnancy was not always positive; of the nineteen fatal cases only six deaths were due to the operation, three on account of hemorrhage, one from ileus and two from sepsis, while twelve or more died only because the operation was delayed too long. The prognosis as to controlling the hemorrhage by laparotomy is therefore very favorable; in many cases the patients were saved in spite of the most extreme anæmia. Usually there is sufficient time to make suitable preparation for laparotomy, to wait for formation of hæmatocele when there is internal bleeding is a very unsafe matter, because it depends on the presence of previously existing adhesions in Douglass' space.—Annals of Gynecol. and Paediat, April, 1892.

SYPHILIS.

1. Case of Gummata of the Elbow and Knee-Joints. By Dr. Nikolai A. Mikhailoff (St. Petersburg, Russia). A male peasant, aged 25, had contracted hard chancre in March, 1887. In August there had appeared rash over the body, sore throat and alopecia, to be followed in November by shallow ulcers over the shoulder-blades and extremities. In October, 1888, the patient had first noticed weakness of his left lower limb, with pain about the knee, on movements, and rigidity and pain about the left elbow-joint. When admitted to Professor V. M. Tarnovsky's clinic, in March, 1889, the man had enlarged and indurated cervical, cubital and inguinal glands, and a typical circular gummous ulcer on the posterior surface of the left thigh. The left knee-joint was markedly swollen (its circumference being 3 cm. larger than that of the right knee), oedematous, painless on pressure, the skin tense, but of a normal color. The limb was flexed at the joint to the angle of 165°.
SYMPHILIS.

and could not be extended beyond 175°, all active and passive movements being associated with pain. The left elbow-joint presented similar changes, the extremity being immovably fixed at an angle of 150°. Near the inner condyles of the humerus there was situated a painless, flat, dense, immobile periosteal tumor of the size of a walnut. The treatment adopted by the author consisted in intramuscular injections of salicylate of mercury (1½ grains at a time) suspended in vaseline-oil. After 20 injections (in the course of 40 days) the patient was discharged quite well, the cutaneous ulcer had soundly cicatrised, the articular gummata disappeared, all movements of the joints became normal, etc. Dr. Mikhailoff draws attention to the fact that gummous lesions of joints occur relatively rarely. At all events, international literature of the subject remains yet rather scanty. Of Russian authors, Dr. M. Kitaevsky (vide the London Medical Record, 1882, p. 280), and Professors Mansuroff and Monastyrsky have published the most valuable contributions, to our knowledge, of syphilitic affections of joints.—Vratch, No. 19, 1890, p. 432.

Valerius Idelson (Berne).