of active purgation in concentrated form, the stone was dislodged from its position in the small intestine and passed on, but the damage it had left behind caused the second attack of obstruction.

At the operation, this portion of inflamed bowel was resected, and an end-to-end anastomosis done with the O'Hara forceps. The case terminated fatally in a few hours. Microscopic sections of the resected bowel showed a destructive inflammation of a gangrenous order, with the presence of numerous cocci and bacilli.

STATED MEETING, MAY 5, 1902.

The President, RICHARD H. HARTE, M.D., in the Chair.

OSTEOTOMY FOR BOW-LEG.

DR. JAMES K. YOUNG presented a girl, aged ten years, who, for the relief of deformity of the left leg, was subjected to osteotomy below the knee three months before.

SUBCUTANEOUS RUPTURE OF THIGH MUSCLES.

DR. OSCAR H. ALLIS presented a man, forty years of age, brakeman, who, on February 15, 1890, was standing on the rear end of an empty box freight car, weight 60,000 pounds, when it was hit unexpectedly by other cars coming slowly against it. The momentum knocked the man down. He fell with his body outside the track, but the advancing car ran over both thighs. The car was an eight-wheeled one, and two wheels passed over the thighs. He was taken promptly to the Presbyterian Hospital, where, on admission, the right limb was greatly swollen and bruised; the left limb much less so. In the right limb the wheel seemed to have passed a trifle above the midlength of the limb; in the left limb the apparent track of the wheel was at the junction of the lower with the upper two-thirds. The skin was not broken in either limb. The swelling was too great to permit of any satisfactory examination. Peripheral sensation was lost in the region of the injury to right limb, but not in the left.

Two weeks after the injury the hæmatoma broke down and was evacuated. No part of the skin sloughed in either limb. He was discharged at the end of thirteen weeks. Result, sensation returned to right limb; function so completely restored that the usual recklessness of brakemen was again indulged in, viz., the jumping on and off cars while in slow motion.

The track of the wheels can now be distinctly seen as two broad shrunken belts. When the patient contracts the flexor muscles, they act as two-bellied muscles, especially marked on the right limb.

Dr. Allis said that there was no reason to dispute the accuracy of the history of the injury. The car was marked, weight, 60,000; it was moving slowly; only two wheels passed over him; the clothing, which was his only protection, consisted of winter pantaloons and drawers.

OSTEOPLASTIC OPERATION FOR SPINA BIFIDA.

Dr. De Forest Willard presented an infant who at birth presented a large sessile tumor, lumbosacral, skin ulcerated. When seen at five weeks, epidermis had formed over the tumor, which was two and one-half inches in diameter; tensely distended during crying. Pressure upon the sac gave distress to the infant. The lower limbs were partially defective in motion, but not totally paralyzed, and there were no deformities of the legs. Condition of sphincters not ascertainable on account of age, but there was no apparent control of either bladder or rectum. In the centre of the sac was a dimple, apparently the attachment of the cord.

Operation at five weeks. A V-shaped portion of skin was excised, and the skin thoroughly dissected back from the sac. Upon opening the sac, the entire cauda equina was found adherent to the posterior wall; the filaments were dissected free and replaced in the spinal canal. A large section of the sac was excised, the remaining lateral portions being brought together over the large opening in the canal, which was an inch in length and three-quarters of an inch in width; spinous processes and laminæ being entirely absent. Redundant lateral portions of the sac were closely stitched with a continuous suture of catgut, the edges being inverted, and a staple stitch employed. Next, two large osseous flaps were cut from the crest of the ilia with a strong knife and turned inward upon their periosteal bases like a cellar-door, the fresh surfaces presenting outward. These were firmly united with catgut, and the opening in the canal thus accurately closed. The flaps of skin were then brought together and sutured in the same manner. The wound was dusted with aristol, and a dry aseptic dressing applied. The wound was protected from soiling by enclosing the gauze within a superimposed piece of mackintosh, accurately sealed and united around its lower and two lateral margins by freely applied layers of collodion, the collodion being applied first to the skin over one half an inch in width around the

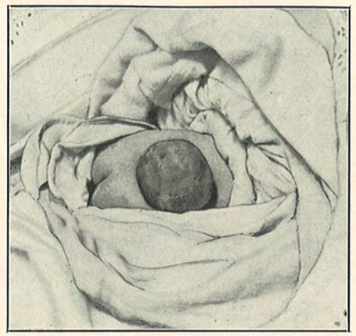

Fig. 1.—Spina bifida, five weeks old.

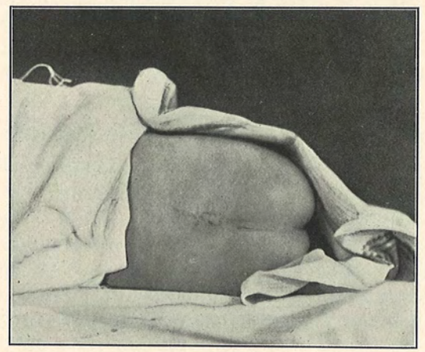

Fig. 2.—Spina bifida, after excision of sac.

margin, the mackintosh then laid in place and sealed thoroughly. By the use of this dressing combined with keeping the child upon its face and an abundance of absorbent cotton about the genitals and anus, all infection was prevented and primary union secured. The child suffered less discomfort after the operation than before; nursed and slept well, and recovered in two weeks. The tumor has not reappeared and the opening seems to be strongly closed, but the child is apparently becoming hydrocephalic, a not uncommon sequel. The legs show no change.

INTESTINAL ANTHRAX.

Dr. De Forest Willard made the following report to complete the history of the case of anthrax reported by him in the Annals of Surgery, April, 1902, page 524.

The man, a leather worker, had been infected in the cheek and also in the intestines. The wound caused by excision of the cheek tissues healed speedily; after a long struggle, in which his life was in the balance for weeks from peritonitis from the intestinal infection, opening of the abdomen and evacuation of three quarts of pus caused slow improvement, the sinus closing in five months. Meantime he suffered greatly from intestinal pains, probably due to the adhesions of loops of intestines about the abscess wall; but these pains, together with the symptoms of partial obstruction, were slowly relieved, and he was discharged from the hospital in six months, apparently in good health.

EPITHELIOMA OF THE ORBIT; TREATMENT BY X-RAYS.

Dr. Wharton presented a woman who, for a number of years, had been suffering from an epitheliomatous growth which first appeared below the right eye, involving the lower lid. It gradually extended, until she was sent to the hospital under his care two months ago. At this time she had a very large growth, which extended beyond the limits of the orbit and had destroyed the right eyeball. He curetted the growth, removed the shrunken eyeball, cut away the edges, and then applied the X-rays from five to ten minutes at intervals of two to three days. She has had in all twenty applications, and there has been marked improvement in the condition of the parts. A large amount of cicatrization has occurred.

ARTERIAL ANGIOMA OF THE EAR AND NECK.

Dr. Francis T. Stewart reported a case of cirsoid aneurism occurring in a medical student aged twenty-two years; he had been born with a nevus on the left ear, which grew with a rapidity out of all proportion to his general development. Hardly a month has passed without some hæmorrhage from the angioma; at times the bleeding would occur during sleep and often a large quantity of blood would be lost. For several years a bandage has been continuously worn around the head, owing to the constant dread of severe bleeding. The patient is unusually intelligent, quick and nervous in action, and markedly anæmic, owing to the repeated hæmorrhages. Occupying the site of the left ear and that portion of the neck immediately below it was an irregular swelling, purple in color, measuring six inches longitudinally and three inches laterally, the width of the mass lessening in the lower part. The whole swelling pulsated with considerable force, there being a number of arteries—the largest about the size of the radial—which ran into the mass, and which by their twisting and sacculation constituted most of the swelling. The skin was infiltrated with numerous enlarged venous capillaries. Pressure on the carotid caused a material diminution in the size of the tumor, but did not stop pulsation. Under ether anæsthesia an incision was made around the periphery of the angioma; each vessel was ligated as it was encountered, and all the vessels and overlying skin below and behind the ear were excised. The cartilage of the ear, which had been pushed forward by the growth so that it projected perpendicularly from the side of the head, was next sutured to the periosteum of the skull, and the incision closed except for a small area just below the ear, whose margins could not be approximated and which was allowed to granulate. The operation lasted three hours, was attended by frightful bleeding, although compression of the carotid was practised, and was followed by much shock. The patient was satisfactorily reacted, however, by saline infusion and stimulants, and the wound healed without mishap. The only vestige of his former trouble is a slight bluish discoloration occupying the region of the lower ear.

ADVANCED CARCINOMA OF THE BREAST.

Dr. Stewart presented a woman, aged forty-five years, who had noticed a hard lump about the size of a hazel-nut just to the

inner side of the nipple three years before coming under observation. This increased very slowly in size for one year, when the rapidity of the growth became accelerated, until the entire breast was the seat of a hard mass. The skin covering the breast had ulcerated, the huge tumor resembling a crater. The axillary lymph glands were swollen and the growth was adherent to the pectoralis major muscle. The breast, both pectoral muscles, and the axillary glands were excised, and the wound closed by raising large flaps from the belly and back to fill in the deficiency left by the removal of the mass. The temperature remained about normal for three weeks after operation, and the tip of one of the flaps sloughed, leaving an area about the size of the palm to granulate. His object in bringing this case before the Academy was to show the result after the Warren method of the closing an enormous wound following an extensive excision of the breast, and also the amount of comfort gained for a patient subsequent to an operation for a breast cancer which might have been considered inoperable. The operation was performed ten months ago, and there were no signs of recurrence thus far.

Dr. Allis said he had had infection in every case in which he had to do this operation, and the reason was this: the surgeon takes away the great and small pectoral; that leaves a space which is bridged over by the clavicle which stands out so that when the skin is brought over there is left an air-space which invites infection.

One of his cases was quite unique and interesting; the shoulder-joint approximating the operation became infected. He drained right through the joint, washing it out, and in the course of five or six days removed the drainage. She recovered perfect use of the shoulder.

Dr. Rodman said that one of the patients who was shown to the Academy by him fifteen months ago is now dying from recurrence. But in another case, operated four years last October, the third operation, a most extensive operation for a recurring scirrhus growing from the sternal portion of the mammary gland, the patient is entirely well to-day.

In yet another case reported to him last month, the patient is well a little more than four years, having been operated in December, 1897.

SUPPURATIVE CHOLECYSTITIS DUE TO THE TYPHOID BACILLUS.

Dr. George Erety Shoemaker reported the case of a woman, aged thirty-three years, who was seen at her home by Dr. Xander for an inflammation in the region of the gall-bladder. She had had six confinements without sequelæ, and had aborted two months before at three and one-half months of gestation, while suffering from a severe attack of typhoid fever in the Methodist Hospital. During this attack, which began October 15, 1901, there were noted, as confirmatory of the diagnosis of enteric fever, the Widal reaction, spots, tympany, and typhoid stools. Though dangerously ill, she recovered fully and remained well four weeks. Then began, December 27, 1901, the present attack, with soreness and pain in taking a long breath, two or three inches to the right of the median line and above the level of the navel. Turning in bed gave severe pain. No cough, chill, or jaundice. There was absolutely no previous history of a gall-stone or gall-bladder attack. A mass below the rib edge was noted by the patient two days later. Her temperature ranged to 101° F., pulse to 110. There was some perspiration. When seen January 2, 1902, by the writer, a distinct mass could be felt to the right of the median line below the rib edge; the upper half of the right rectus muscle was rigid, the lower abdomen was tympanitic; the tenderness was greatest over the gall-bladder, less over the appendix, and absent on the left side. Vaginal examination was negative; there was no jaundice, no vomiting. She was sent to the Presbyterian Hospital for operation; diagnosis, cholecystitis with abscess. Leucocyte count, 15,200. The pain was very severe during the night. Next day, on opening the abdomen vertically over the mass, no adhesions were found to the parietal peritoneum. The liver, gall-bladder, and neighboring viscera were massed firmly and covered with well-organized exudate. The recognition of the gall-bladder was a matter of some difficulty; but without separating its adhesions, after proper packing, it was opened with great ease by a blunt dissection and about two ounces of pus allowed to escape. This was yellowish, streaked with blood and contained small clots; the portions escaping last contained mucus, but no bile. The walls of the gall-bladder were about one-eighth inch thick, much softened by inflammation, and of a purplish red inside; they bled on the lightest touch, so that small clots, constantly renewed, concealed from recognition by the finger a solitary gall-stone, which was, however, afterwards found and removed through the wound. It had no facets. The gall-bladder opening was stitched in the wound and drained. There was no complication in the recovery, and the patient left the hospital on the twenty-sixth day with a small sinus discharging a very little mucoid secretion from the gall-bladder wall. No bile.

A culture made by Dr. Foulkrod, under the supervision of Dr. Steele, in the laboratory of the hospital, gave a pure culture of a bacillus identical with the typhoid bacillus.

Four months later the patient is strong and well, doing her own work, including washing, without any discomfort whatever. The sinus still persists, a very little mucopurulent fluid staining the dressing. When it closes, she feels some discomfort, and she therefore re-opens it. Only once since the operation has anything resembling bile appeared, when about six weeks ago a few drops of greenish fluid escaped for a week. The cystic duct appears to have been obliterated by inflammation. No gall-stone can be now found.

INTERSCAPULO-THORACIC AMPUTATIONS.

Dr. Le Conte read a paper with this title, for which see page 100.

A FURTHER NOTE ON INTERSCAPULO-THORACIC AMPUTATIONS.

BY ROBERT G. LE CONTE, M.D.

THIS month, three years ago, I had the honor of showing a case of interscapulo-thoracic amputation before the Philadelphia Academy of Surgery, and of detailing a new method of technique for its accomplishment (ANNALS OF SURGERY, August, 1899). At that time I had absolute confidence in the safety of the method, and the belief that no serious accidents could occur during the performance of the operation. To-day, my confidence in the method is still unshaken, provided it is carried out with good judgment, but errors of judgment may bring about complications of the most serious character. It is for the purpose of detailing my own errors in this line that I again bring up the subject.

The safety of this operation for malignant disease lies in the control of hæmorrhage, particularly of the venous bleeding, for in some cases the venous channels exposed are as large as the ascending cava. For the purpose of exposing these veins as thoroughly as possible, I have advised the disarticulation of the sternal end of the clavicle instead of a resection of that bone. When the veins are of normal size, the operation may perhaps be performed safely by either method; but when the veins are enormously increased in size, the greatest exposure of the part gives none too much room for their ligation. It was at this point of the operation in the following case that I erred in judgment, and my errors nearly cost the patient his life.

T. D., aged eighteen years, white, school-boy, born in Philadelphia, was admitted to the Pennsylvania Hospital, April 2, 1902. Family history negative. He has always been quite healthy, though never very robust.

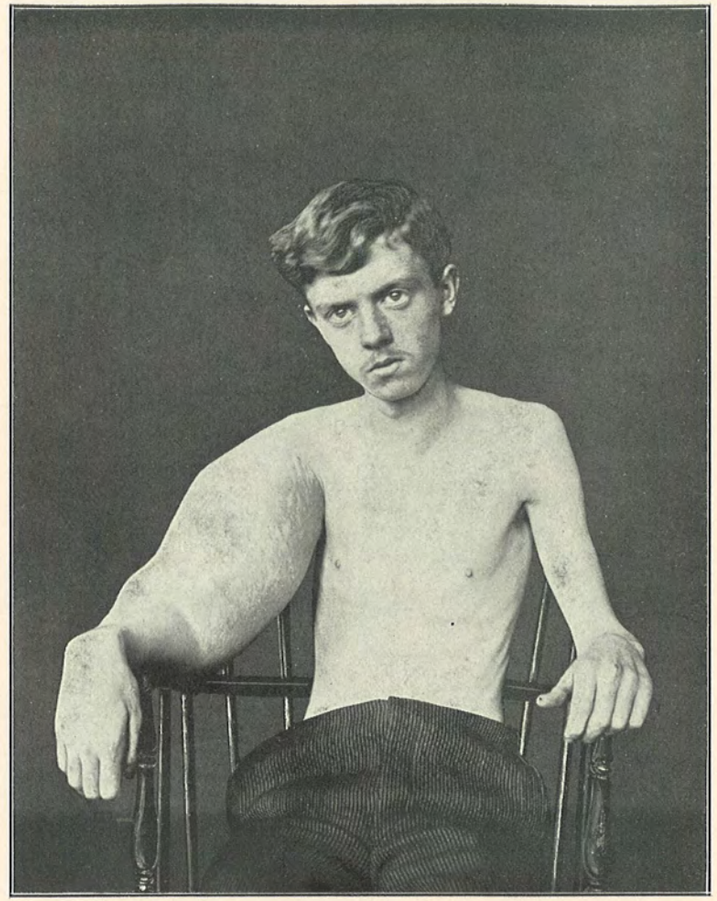

FIG. 1.—Sarcoma of right arm, anterior view.

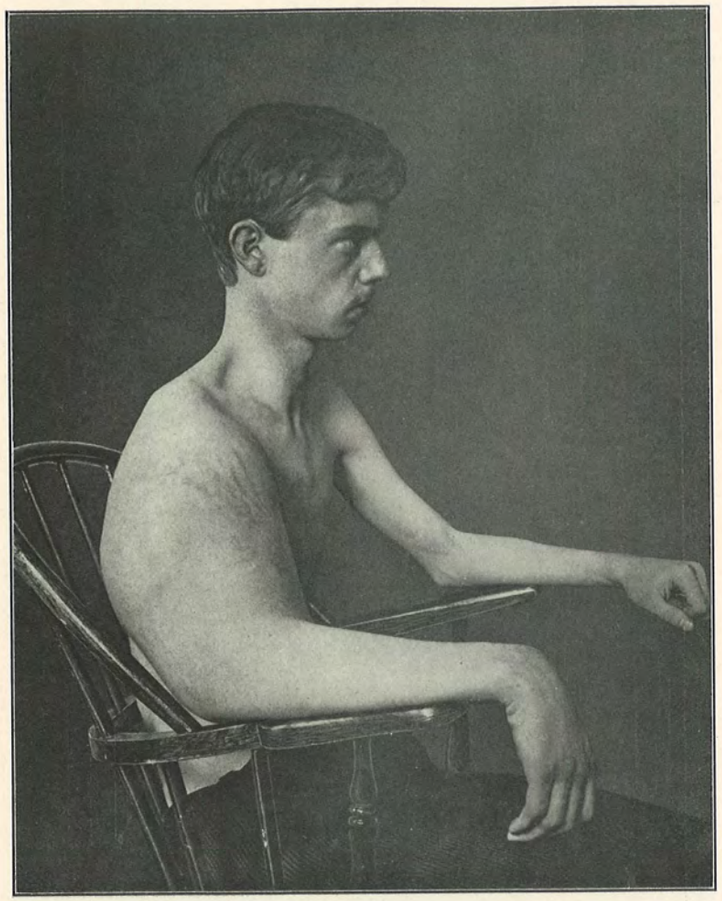

FIG. 2.—Same patient, side view.

Present Condition.—One year ago, while at school, he was frequently pummelled on the right arm by some of the boys, causing a feeling of soreness for several days. During the summer, while playing baseball, he noticed that he could not throw as far as formerly, and as time went on his ability to throw a ball diminished. In October he noticed a stiffness of the arm, with a tendency to flexion at the elbow, with slight pain on motion. Not until January was he aware that the arm was increasing in size. This enlargement was at first gradual and painless, and the flexion at the elbow increased slowly until two weeks before admission, when very rapid growth set in, accompanied by severe pain, especially at night, and a feeling of discomfort and distress from the weight and bulk of the arm, which rendered the limb useless and overbalanced him when moving about.

On admission the patient was pale, very slightly built, weighing 118 pounds; eyes prominent; temperature and respiration normal, but cardiac action much accelerated, pulse ranging from 120 to 130; no murmurs present. Lungs, other organs, and urine negative to examination. Blood count: red blood-corpuscles, 5,136,000; white corpuscles, 12,400; hæmoglobin, 87 per cent. The prominent eyes with rapid heart action were strongly suggestive of exophthalmic goitre.

The right arm reveals a growth about the size and shape of a large ham. (Figs. 1 and 2.) The tumor seems limited to the confines of the humerus, as the forearm, shoulder, and axilla are not visibly affected. Axillary glands not enlarged. The growth is hard and tense, and the skin over it brawny and markedly striated. The elbow is flexed almost to a right angle and cannot be extended. Movements of the hand and fingers on the affected side are limited, with a very pronounced wrist-drop, and a weak radial pulse.

Measurements.—Circumference: Right elbow, twelve and one-half inches; left elbow, nine inches. Right biceps, twenty-two inches; left biceps, eight inches. Right axilla, fifteen inches; left axilla, twelve and one-half inches.

April 24, ether administered. An incision was made through the skin and superficial fascia from the sternum, along the clavicle to its middle, and then curved downward to the anterior axillary fold. The clavicle was disarticulated from the sternum with blunt, curved scissors, the rhomboid ligament and the clavicular