Normal motor activity gives a pressure of 5 to 7 upon his scale, and in dilatation of the stomach it is diminished to from 2 to 4. In cases of hypersecretion spasmodic contractions are indicated by sudden rises alternating with falls. The method is notable for ingenuity rather than for actual practical utility.

REFERENCES.
1. Steensma. *Nederland Tijdschr. v. Geneesk.* P. 203. 1908.
2. Simon. *Berliner klin. Wochenschr.*, 44. 1907.
3. Schaly. *Archiv. des Malad. de l'appareil digest.* 1908.
4. Schwarz. *Kongress der deut. Roentgen Gesellsc.* April 1908.
5. Sailer and Farr. *Progressive Medicine.* P. 24. December 1907.
6. Solms. *Zeitschr. f. klin. Med.* Vol. Ixiv. P. 159.
7. Witte. *Berliner klin. Wochenschr.*, 42. 1907.
8. Wolff and Tomszewski. *Berliner klin. Wochenschr.*, 22. 1908.
9. Fuld. *Verein f. Inn. Med.* July 1908.
10. Gross. *Berliner klin. Wochenschr.*, 13. 1908.
11. Lewinski. *Muenchener med. Wochenschr.*, 9. 1907.
12. Frauenberger. *Wiener med. Wochenschr.*, 30. 1907.
13. Robin. *Medycyna*, 38, 39. 1907.
14. Tottmann. *Muenchener med. Wochenschr.*, 52. 1907.
15. Einhorn. *Jour. Amer. Med. Assoc.* 2nd February 1907. *Archiv. f. Verdaunungskr.* P. 475. 1907.
16. Strauss and Leva. *Deut. med. Wochenschr.*, 29. 1907.
17. Supino. *Il Policlinico*, xiii., p. 365. 1907.

SURGERY.

By ALEXANDER MILES, F.R.C.S.,
Assistant-Surgeon, The Royal Infirmary, Edinburgh.

THE SURGICAL TREATMENT OF ABSCESS AND GANGRENE OF THE LUNG.

Körte (*Archiv. fur Klinische Chirurgie*, 1908, t. lxxxv., fasc. 1) has made an exhaustive study of the surgical treatment of suppurative and gangrenous conditions of the lung, based upon an experience of 28 cases of abscess and gangrene and 15 cases of bronchiectasis on which he has operated. In the former group the mortality was 26.5 per cent.; in the latter 73 per cent.

Abscess and gangrene are considered together as the two conditions merge into one another, and in cases of abscess there is always a certain degree of necrosis. Bronchiectasis, on the other hand, is quite different from the others, anatomically and clinically, and although the treatment may be the same the prognosis is much more grave. Abscess and gangrene may coexist with bronchiectasis, and it is not always easy to determine which originated first. Körte is inclined to
the belief that in the majority of such cases the abscess is a complication following upon bronchiectasis.

Abscesses and gangrene are acute conditions, and Körté has met with them as sequelæ of pneumonia, pulmonary infarction, appendicitis, puerperal infections, aspiration of water in persons submerged, erysipelas, and contusion of the thorax. The diagnosis is comparatively easy, and is based upon the foetid sputum, which on microscopic examination is found to contain elastic fibres and fragments of lung tissue, and hæmoptysis. On attempting to determine the seat of the lesion, auscultation and percussion are untrustworthy, and exploratory punctures are both useless and dangerous. The use of the X-rays is more helpful, especially if the findings coincide with the evidence afforded by auscultation and percussion. An abscess or an area of gangrene is usually single, although small foci of suppuration may exist around the main collection. Bronchiectasis, on the contrary, is usually chronic, and is very difficult to diagnose, because the foci are small and numerous, and may be scattered through a whole lobe or even throughout the entire lung.

It is not necessary to operate in all cases of abscess of the lung. A considerable number recover under medical treatment, but if this fails after a few weeks' trial, and particularly if the patient is losing ground, the expectoration continues, and the sputum becomes foetid, operation is called for. For bronchiectasis operative treatment should only be undertaken if the principal focus is extensive, and if there is reason to believe that the condition is not disseminated throughout the lung. Profuse hæmoptysis calls for operative treatment in cases of abscess and gangrene, because the seat of the hæmorrhage can usually be reached, but it is otherwise in bronchiectasis, as it is by no means certain that the focus exposed will be the seat of the bleeding, and the operation itself may increase the hæmorrhage. Körté sometimes operates under local anaesthesia, using eucaine after injection of scopalamine-morphine, sometimes under general anaesthesia induced by a mixture of alcohol, chloroform and ether, and he has not had more difficulty in the course of the operation with one than the other. He makes a semi-lunar incision, resects portions of two or three ribs, 6 to 8 cm. long, and the apex of the scapula if necessary. As a rule there are pleural adhesions in the vicinity of an abscess. If the pleura is free he recommends suturing the visceral and parietal layers very closely before opening the abscess, which is done with the thermo-cautery. The incision in the lung may be made very freely, and if there is difficulty in finding the pus punctures may be made with the thermo-cautery in various directions. When the abscess is struck it should be freely opened up, gangrenous portions of lung tissue being removed, and the cavity drained with a large tube and iodoform gauze. In cases of bron-
chicectasis the wound is left open in the hope that the pus will find its way out. Sometimes multiple incisions are made; sometimes the whole lobe is excised.

The complications arising in the course of such operations are haemorrhage, the entrance of air into veins, sudden death from arrest of respiration and syncope, apart from the anaesthetic.

In his 28 cases of abscess 8 died, the cause of death being haemorrhage, purulent infections and syncope. Körte has been able to follow up 10 of the patients who recovered for periods up to 4 years. Of the 15 cases of bronchiectasis only 4 have been cured. He does not believe that the use of the Sauerbach pneumatic chamber is likely to improve the results of these operations, as he does not find that pneumothorax is a common complication, on account of the pleural adhesions which are usually present.

The Surgical Treatment of Bunion.

Chas. H. Mayo (Ann. Surg., Phila., August 1908) contributes an eminently practical paper on the subject of bunion and hallux valgus, and describes a simple operation for its relief. "A curved incision is made, base down, over the inner side of the metatarso-phalangeal joint, the skin being lifted in the flap, which is separated from the bursa. A curved incision 'horse-shoe' is now made around the bursa, with its base forwards left attached to the base of the first phalanx, its inner surface being synovial membrane and continuous with the anterior surface of the joint." The head of the metatarsal bone is then removed, the section also removing two-thirds of the anterior portion of the bony hypertrophy on the inner side. The remainder of this projecting bone is cut away to the level of the shaft of the metatarsal. After the end of the metatarsal has been smoothed the bursal flap is turned into the joint area in front of the bone and fixed in place by two catgut sutures, to secure a movable joint. A small drain is inserted through a puncture at the base of the flap and the skin sutured. The patient is able to go about in about two weeks.

Treatment of Tetanus by Intra-Spinal Injections of Sulphate of Magnesia.

Griffon and Lian (La Presse Médicale, Paris, 29th July 1908) report a case of tetanus in which marked benefit followed the injection of a solution of magnesium sulphate into the spinal canal. Meltzer and Auer have shown experimentally that the action of the salts of magnesium on the conducting fibres of the cord is to produce an effect comparable to a temporary section. A lumbar puncture is made, a quantity of cerebro-spinal fluid withdrawn, and a 25 per cent. solution of sulphate of magnesiu injected, one cubic centimetre being used
for each 25 lbs. of body-weight. Within an hour all the muscles are relaxed, the tetanic spasms have ceased, and the patient is able to drink and to turn in bed. The pains and contractions return the following day, but are less severe. A second injection is then given. In the authors' case 5 injections sufficed. In the 9 recorded cases in which this treatment has been adopted (7 in America and 2 in Europe), it has been successful in 7, the two unsuccessful cases being examples of acute fulminating tetanus.

**Anti-Gonococcic Serum.**

Uhle and Mackinney (Jour. Amer. Med. Assoc., 11th July 1908) have employed the antigonococcic serum in the various types of gonococcic infection, and report the results of their observations on 23 cases. They are not satisfied that the serum has any curative effect on the urethral condition; nor did they see any benefit in cases of gonorrheal prostatitis. Of 7 cases with epididymitis, there was some improvement in 3, but the authors incline to attribute this as much to the rest in bed and elevation of the scrotum as to the serum. In none of their cases did they observe the prompt response which should follow an antitoxin treatment. They give the serum in 2 cc. doses, and suggest that possibly their results might have been better with larger doses, although they did not find that either the number of injections or the length of the intervals between them made any appreciable difference in the results. The best results were obtained in cases of gonorrheal arthritis. In 3 cases the patients were promptly relieved, and all the local manifestations had disappeared in less than two weeks. In one of these Bier's treatment also was employed, and it is interesting to note that in a case of gonorrheal myositis the serum produced no beneficial result until Bier's treatment was instituted. In 7 patients a general urticarial eruption followed the use of the serum, but no other toxic effects were manifest.

**DISEASES OF CHILDREN.**

By G. H. MELVILLE DUNLOP, M.D., F.R.C.P.,
Physician, Royal Hospital for Sick Children, Edinburgh.

**The Tetanoid Conditions of Childhood.**

A considerable divergence of opinion still prevails regarding the symptoms which entitle a case to be regarded as one of tetany. Escherich, in a paper (Münch. Med. Woch., 1907, No. 42), lays great stress upon the importance of including the latent symptoms, such as Trousseau's, Erb's and Chvostek's phenomena, in the recognition of the disease. He maintains that muscular and glottic spasms and general