

# EPITOME OF CURRENT MEDICAL LITERATURE

## Medicine

### 370 Exophthalmos in Acromegaly

Citing two illustrative cases of acromegalic exophthalmos, M. LABBÉ and L. JUSTIN-BESANÇON (*Bull. et Mém. Soc. Méd. des Hôp. de Paris*, July 15th, 1935, p. 1221) emphasize the early appearance of this symptom in certain cases, the difficulty of differentiating acromegaly from Graves's disease, and, in advanced cases, the possibility of the exophthalmos being masked by the osseous hypertrophy. This sign may occur as early as three years before the acromegalic manifestations. Signs differentiating acromegaly from Graves's disease are the absence of goitre and tachycardia and a raised basal metabolism in the former. Animal experiments show that the exophthalmos caused by pituitary injections is inconstant and disappears under anaesthesia, and that the thyrotropic hormone is abundant in the urine in acromegaly but absent in Graves's disease. The pathogenesis of this exophthalmos is unknown; a direct effect on the orbital muscles or a stimulation of the thyroid or suprarenals is not a satisfactory explanation.

### 371 Lead Encephalopathy in the Young

P. C. BUCY and D. N. BUCHANAN (*Journ. Amer. Med. Assoc.*, July 27th, 1935, p. 244) record three cases illustrating the fact that lead encephalopathy may closely simulate intracranial tumour in children, and that its surgical treatment by suboccipital decompression is highly satisfactory. The differentiation of these two conditions by means of the history and clinical signs is difficult, and may be impossible since the rapid onset, the early appearance of vomiting, and the absence of neurological signs other than those associated with increased intracranial pressure are common to lead encephalopathy and midline cerebellar tumours of children. In the former condition, however, radiographs of the wrists and knees will often show lines of increased density at the ends of the bones, even though there is no characteristic blue line along the gums. Medical treatment to remove the lead is very risky in children, and the mortality figures are high. Cerebellar decompression is shown by the authors' three cases to be valuable. In two the prognosis was grave, but recovery rapidly followed the operation, and no trace of any sequel remained. In the third case no decompression was attempted, since the intracranial pressure was much less elevated; yet the patient lay stuporous for several weeks, and convalescence was protracted. The authors point out that the diagnostic lead line in the bones at the wrists and knees does not occur in adults, being associated with growth. The diagnosis is established by testing the blood for lead.

### 372 Occupation and Kidney Disease

According to H. DENNIG (*Med. Welt*, August 3rd, 1935, p. 1105) kidney disease may be induced by occupational influences favouring cold, infection, or poisoning. There is experimental evidence that undue exposure to cold induces reflex vaso-constriction in the kidneys, and clinical evidence that acute haemorrhagic glomerulonephritis may follow within a few days. A causal connexion is just possible in cases in which nephritis occurs one to three weeks after exposure to cold and a respiratory or pharyngeal catarrhal phase has intervened. Occupational risk of nephritis affects chiefly the medical and nursing attendants of infectious patients—for example, with scarlet fever—but recently the risk that canal and sewer workers may be attacked by Weil's infective jaundice has been recognized. Acute nephritis is an occupational risk of workers with mercury: chronic

nephritis in those using mercury, boron, arsenic, chromium, bismuth, salicylic acid, turpentine, or phenol derivatives. Lead poisoning may become manifest in an acute haemorrhagic nephritis, but more commonly in renal sclerosis: it is now less common among printers than among workers in accumulator factories. Early and thorough investigation of renal function, preferably in hospital, is advisable whenever medico-legal questions are likely to arise.

### 373 Vocal Fremitus

D. SUCIC (*Med. Klinik*, August 2nd, 1935, p. 1012) points out that difficulties are met with in women, children, men with high-pitched voices, and patients with aphonia when the orthodox method of eliciting vocal fremitus is employed. Since bronchial breathing, increased vocal fremitus, and pectoriloquy are an important diagnostic triad, the author has sought for another method of eliciting vocal fremitus. He found that he could evoke the sign by asking the patient to hawk or cough. In patients with healthy cords hawking, in those with diseased cords coughing, produces the best results. The reason for this is twofold: (1) the pitch of a cough is lower than that of the voice, and these "noises" contain semitones which bring them into harmony with those of the lung; (2) the intensity of these "noises" is greater and produces larger vibrations of the cords. Susic has found his method to be of use in many cases when the classical one has failed, and deems it an important diagnostic asset.

### 374 Prognosis and Treatment of Severe Gastro-duodenal Haemorrhages

UMBER (*Deut. med. Woch.*, August 9th, 1935, p. 1265) reviews his experience of 1,852 clinically definite cases of ulceration of the stomach or duodenum observed during the past sixteen years in his hospital. In 433 of these cases severe haemorrhage occurred, terminating fatally in forty-one cases. Thus, after medical treatment, 9.5 per cent. of the severe haemorrhage cases and 2.2 per cent. of all the ulcer cases terminated fatally in association with a haemorrhage. In as many as twenty-one of the forty-one fatal cases, valvular erosions of arteries of the stomach or duodenum were found, post mortem, to be the source of the haemorrhage. In Professor UMBER's opinion, large fatal haemorrhages in cases of old-standing ulceration are almost invariably due to such arterial lesions, even when they are overlooked post mortem or not mentioned in the records. In thirty-nine cases the patients were transferred to the surgical side of the hospital with an operation in view. Records were available for thirty-two of these cases, twenty-five of which were discharged as cured after resection (nineteen cases) or gastro-enterostomy (six cases). The remaining seven patients died in spite of an operation. Incidentally it should be noted that, among the cases coming to operation, the ulceration was located in the stomach in as many as twenty-three cases—an observation suggesting that severe duodenal haemorrhage is comparatively rare. As for the choice between conservative and operative treatment, the author is in favour of giving the former a fair trial, as in 82 per cent. of his cases it was followed by arrest of the haemorrhage. But when it recurs in spite of proper conservative treatment, when the haemoglobin curve declines, strength fails, and the pulse rises to 100 to 120 or more, an operation is indicated. Cases marked by recurrences of haemorrhage should, if possible, be operated on in a free interval. The author attaches great importance to irrigation with iced water to rid the stomach of clotted blood; and he has found this measure remarkably effective in the relief of nausea and vomiting.

## Surgery

## 375 Typhoid Ulcer Perforation

J. JÁKI (*Brun's Beitr. z. klin. Chir.*, July 24th, 1935, p. 124) gives an account of twenty-two operations for perforated typhoid ulcer at a Hungarian clinic. All but one were in males, and within 50 cm. proximal to the caecum. Three only led to recovery, but no fewer than nine of the patients in this series had perforation in an ambulant typhoid infection. The necropsy findings supported the old view that perforation does not occur before the third or fourth week, although a clinical history of some ten days' illness only was not uncommon. Nineteen patients were admitted to hospital as late as twenty-four to thirty-six hours or more after perforation, and a history of sudden severe pain was sometimes absent. Tenderness in the ileo-caecal region was of little diagnostic value, but rigidity was constant, although sometimes present in the absence of perforation. Diagnosis could invariably be assured by radiological detection of free gas in the peritoneal cavity. Leucopenia persisted in half the cases in spite of perforation, and only two patients had had a preceding serious haemorrhage. The operation recommended was suture with drainage, in ether anaesthesia, and after exhibition of morphine and atropine.

## 376 Liver Abscess

A. OCHSNER and M. DE BAKEY (*Amer. Journ. Surg.*, August, 1935, p. 173) present a report based on 102 cases of liver abscess. Of these seventy-three were amoebic abscesses and twenty-nine were pyogenic. In the seventy-three cases of amoebic abscess the average age was 44 years. Males are much more susceptible than females, due possibly to alcoholism, which predisposes to hepatitis, and to the greater likelihood of trauma. In the series reported there were only eight females. Prognosis depends upon the presence of secondary infection and the method of treatment. Operation was carried out in forty-six cases with nine deaths. Of these sixteen were operated on by the transpleural approach, with a mortality of 25 per cent.; fourteen through a right rectus incision, with a 21 per cent. mortality; whilst seven had simple incision and drainage over a presenting mass with a 14 per cent. mortality rate. Nine had retroperitoneal operations with an 11 per cent. mortality. The lowest mortality rate was obtained in twenty-four cases treated conservatively by aspiration and the use of amoebicides. Open operation should, the authors state, only be used when there is infection with pyogenic micro-organisms.

## 377 Ununited Fractures of the Neck of the Femur

L. BÖHLER (*Zentralbl. f. Chir.*, July 27th, 1935, p. 1756) now treats old fractures of the neck of the femur, including those with pseudo-arthrodes, by extra-articular pegging in the method of Sven Johannson. He describes seven cases, including three in those aged 68 to 75. In one, a man aged 39, the peg was removed thirteen months after operation and thirty-one months after the accident; in the others the peg still unites the head of the femur and the trochanter, but the patients get about comfortably. Malunion, according to Böhler, is always due to errors of treatment: in the early stages the fracture is unrecognized, rest is insufficiently prolonged, too heavy or too light extension is used, or callus formation is disturbed by too early massage and passive movement. Only those are suited for the pegging operation whose general condition is good, and in whom the head of the femur is radiologically shown to be well nourished and rich in calcium. In a preliminary treatment the coxa vara and other deformities are corrected by pegging the tibia and instituting extension (by one-seventh of the body weight) with abduction. The operation proper follows in a few days. A fortnight later plaster is applied to the hip for at least six months, but the patient is allowed to walk.

## Therapeutics

## 378 Vaccine Treatment of Typhoid Fever

R. FRANZA (*Riforma Med.*, July 6th, 1935, p. 1017) records his observations of ninety-three cases of typhoid fever treated by intravenous injections of vaccine lysates, with only one death. All but three showed a well-marked febrile reaction from half an hour to two hours after the injections, followed in one or two days by a considerable fall in temperature and general improvement.

## 379 Sympathectomy in Bronchial Asthma

G. LEVIN (*Ann. of Surg.*, August, 1935, p. 161) considers that there is sufficient theoretical, pathological, and clinical evidence to show that the dorsal sympathetic nerves, especially the second, third, fourth, fifth, and sixth rami, contain contractor fibres to the bronchial musculature as well as sensory bronchial fibres. It has been found that sympathectomy is a sure method of severance of all sensory dorsal sympathetic stimuli, thus throwing out of action the motor half of the reflex arc, and it also implies direct destruction of the bronchial constrictor nerves. In consequence, dorsal sympathectomy for the relief of asthma has given good results. The different methods of direct and indirect dorsal sympathectomy which are applicable for the treatment of bronchial asthma are: anterior sympathectomy, in which the incision is made parallel to the clavicle; posterior sympathectomy, with the incision from the spine of the sixth cervical vertebra to the spine of the fourth thoracic. Both these methods tax the patient rather heavily, and imply the severance of the sympathetic supply of all the other thoracic organs as well as of the rami joining the brachial plexus. Another method which is only suitable for mild cases is the posterior rami section, in which the level of the operation is lower than in a posterior sympathectomy. Destruction of the rami by injection of absolute alcohol has given good results, and five cases are reported in which a complete cure had taken place. Destruction of the upper portion of the thoracic ganglionated trunk by injection of absolute alcohol was also successful, and of twenty-three cases treated by absolute alcohol injection complete relief was obtained in 75 per cent. of cases. It is considered that the indirect method of treatment by injection is preferable to open sympathectomy, as the procedure is quicker and the risk is very slight.

## 380 Treatment of Thrombo-angiitis Obliterans

S. GILBERT (*Surg., Gynecol. and Obstet.*, August, 1935, p. 214) gives the results obtained in the treatment of thrombo-angiitis obliterans by repeated intravenous injections of hypertonic salt solution. As a result of this method of treatment it has been found that the disease can be arrested, amputations can be avoided, patients returned to good health, and recurrence prevented. Failure occurs only when the condition is not recognized early enough and has reached an advanced state, or when the patients do not co-operate completely in their treatment. Thrombo-angiitis obliterans is an inflammatory condition, and as its cause is known and can be eliminated the disease can be arrested. In this respect the prognosis is more favourable than in cases of arteriosclerosis, which is a degenerative lesion. Cessation of the use of tobacco is of primary importance—there were no non-smokers in over 1,000 cases—and efforts to improve the collateral circulation by the repeated injections of hypertonic salt solution are only secondary. The disease is of a chronic nature, subject to periods of spontaneous remission, and is not progressive if the patient stops smoking and receives treatment. The solution used for injection is 5 per cent. sodium chloride, which is prepared in freshly distilled water, filtered, and immediately sterilized. Injections are given by the gravity method into a superficial vein at the elbow; the initial dose is 150 c.cm., and all subsequent injections are 300 c.cm. They are at first given

on alternate days, but the interval is gradually increased as the patient improves. The total duration of treatment varies from six weeks to two years, according to the severity of the case. Of the 524 cases in the series reported improvement has resulted in 434 instances—83 per cent. of cases. No dangerous reaction or untoward results have been noted in 35,000 injections. About 7 per cent. of the patients treated have required amputation of an extremity.

### 381 Contralateral Pneumothorax for Empyema in Children

KOSTER and others (*Journ. Amer. Med. Assoc.*, April 27th, 1935, p. 1484) have tried contralateral artificial pneumothorax to improve the drainage of post-pneumonic empyema in eight children aged from 3 to 12. This method was adopted following the observation of a case of bilateral empyema whose worst side became dry one week after drainage was instituted. Three days after closed intercostal drainage has been started a pneumothorax is induced on the sound side. About 250 c.cm. is given initially. The object is to collapse the good lung to about one-third of its volume under fluoroscopic control. The authors' patients became slightly dyspnoic and the drainage from the empyema markedly increased. The temperature remained normal and showed no rises suggestive of pus-pocketing. By the ninth day after induction of the pneumothorax the average capacity of the empyema cavity was 25 c.cm. Drainage ceased, on average, fourteen days after the thoracotomy.

[This method of encouraging deep breathing in empyema is similar in principle to the use of a Drinker respirator for infantile empyema recommended in the *Lancet*, 1934, i, 1438.]

## Anaesthetics

### 382 Sodium Evipan and Regional Anaesthesia

H. LIEBER (*Current Researches Anesth. and Analg.*, July-August, 1935, p. 159) summarizes the well-known advantages of sodium evipan as a short general anaesthetic, and enumerates several ways in which it may be helpful during operation under local or regional analgesia. It may be used, for example, to give a short complete anaesthesia for abdominal exploration, after which operation is to be carried out under local methods or to provide a painless induction for spinal or splanchnic analgesia. It is much superior to other general methods where a supplementary anaesthesia is required during operation, for the induction is so quiet and peaceful that no disturbance or interruption is caused.

### 383 Intravenous Anaesthesia with Eunarcon

E. HILDEBRANDT (*Münch. med. Woch.*, August 23rd, 1935, p. 1348) reports from a public hospital in Berlin-Wilmersdorf his experiences with eunarcon in 230 cases requiring general anaesthesia of short duration. His patients represented first-aid and out-patient material, and eighty of them suffered from fractures of the lower limbs. Among the ambulant cases were forty suffering from incised wounds. The mobilization of stiffened joints and the incision of carbuncles were among the operations requiring general anaesthesia of short duration. The success of the anaesthesia induced by eunarcon largely depends on the rate at which it is injected into a vein; and a failure to induce complete anaesthesia which the author records was traced to a too precipitate injection. The technique he recommends is as follows: The first cubic centimetre is introduced so slowly that the process takes from one and a half to two minutes. The injection of the first  $2\frac{1}{2}$  to 3 c.cm. must take from four to five minutes. A general anaesthesia lasting about ten minutes can be achieved with 5 c.cm., but if the patient does not go to sleep till he has received 4 to  $4\frac{1}{2}$  c.cm. it may be necessary to increase the total dosage to 9 c.cm. One of the

cases with which the author illustrates his thesis was that of a woman aged 77, suffering from incarceration of an umbilical hernia. He concludes that eunarcon is as safe as any other general anaesthetic, and that the ease with which it is given commends it to the general practitioner. It is suitable not only for small and short operations, but also for starting the general anaesthesia required for major operations.

### 384 Anaesthesia in Children

R. J. MINNITT (*Liverpool Medico-Chirurg. Journ.*, vol. xliii, Part II, 1935, p. 120) describes the difficulties of inducing anaesthesia in young children, and stresses the harm that may result from the forcible methods sometimes used. As an alternative to the various forms of basal anaesthesia, he recommends a method he has devised for using nitrous oxide and air. The gas is delivered into a mask on which are three painted disks representing traffic lights. This is held at a short distance above the patient, who is instructed to watch till the lights change. The gas, being heavier than air, sinks, and is inhaled in mixture form. Unconsciousness quietly supervenes whilst the child's attention is focused on "the lights."

### 385 Hyperpyrexia after Spinal Anaesthesia with Percaine

T. A. JOST (*Current Researches Anesth. and Analg.*, July-August, 1935, p. 191) records a number of cases in which a transient rise of temperature up to 104° F. with chill and shivering followed anaesthesia with Howard Jones's solution of percaine. No apparent cause could be found, and recovery followed in twenty-four to forty-eight hours. The writer concludes that these effects were due to sterilization of needles and syringes in alkaline or tap water, and since using alcohol for sterilization, subsequently rinsing with distilled water, he has had no repetition of the trouble.

## Obstetrics and Gynaecology

### 386 Prophylaxis in Puerperal Sepsis and Pyrexia

H. J. THOMSON (*Journ. Obstet. and Gynaecol. British Empire*, June 15th, 1935, p. 434), presenting an analysis of a series of 8,189 cases of confinement and abortion treated in the County of Lanark Maternity Hospital, Bellshill, between the years 1927 and 1934, arrives at the following conclusions. (1) Surgical technique as practised in a general hospital is of prime importance in a maternity hospital. (2) The wearing of masks by patients and staff is essential. (3) Anti-streptococcal antitoxin (puerperal) occupies a definite place among preventive measures of puerperal sepsis. The antitoxin, though not always preventing the onset of sepsis, ameliorates the disease, and the mortality rate is negligible. (4) The use of acriflavine is limited to swabbing of the skin around the vulva, and gives satisfactory results, especially when combined with ethereal soap 1 in 500. (5) Administration of calcium sulphide in 1,421 cases gives a pyrexial rate of approximately 3.5 per 1,000—an irreducible minimum. The routine dose varies between 1/2 grain three times daily and 1 grain twice daily, while in complicated cases 1/2 grain is given every two hours for the first twenty-four hours and 1 grain every four hours thereafter. The author urges that other medical observers should try the value of the remedies recommended—namely, asepsis, masks, calcium sulphide, antitoxin, acriflavine-ethereal soap, and, in foul-smelling lochial discharges, an intra-uterine douche of glycerin and acriflavine (1 in 500) twice or thrice daily. In the course of his summary the author reiterates some of the conclusions which he reached in a report he published in 1932. They are as follows: (a) It is not necessary to give every patient puerperal antitoxin after parturition. (b) Cases of instrumental delivery with evidence of lacerations of the soft parts should receive anti-streptococcal antitoxin in liberal doses. (c)

Antitoxin should be given in all cases of ante-partum and post-partum haemorrhage. (d) The effect of the antitoxin is prophylactic for thirteen days on the average; nine to ten days would be the minimal and seventeen days the maximal time in this respect. (e) Puerperal anti-streptococcal antitoxin is of no value when given to a patient whose temperature has been markedly elevated for twenty-four to thirty-six hours before administration.

### 387 Granulosa Cell and Brenner Tumours of Ovary

P. BROOKE BLAND and L. GOLDSTEIN (*Surg., Gynecol. and Obstet.*, August, 1935, p. 250) review 160 cases of granulosa cell tumours and sixty-six Brenner tumours, of which individual summarizations are given. A further eighty-five cases of Brenner tumour have been reported, making a total of 311 cases of these two lesions. Clinically, the granulosa cell and Brenner tumours are relatively benign, and only occasionally do they break through the capsule, recur, or metastasize. The granulosa cell tumour may vary in size from a tiny nodule to a growth 20 cm. or more in diameter. It is usually spherical or ovoid, is encased in a thick, dense fibrous capsule, and is freely movable in the majority of cases. A large tumour is invariably associated with a varying degree of ascites, and usually involves one ovary, although bilateral involvement has been seen. As the cells of the neoplasm elaborate the follicular hormone a feminizing effect is produced, with vascularization, engorgement, and hyperplastic alteration of the endometrium. Uterine bleeding is the most common symptom, and when the granulosa cell tumour occurs in a child there may be precocious sexual development. The Brenner tumour is found in two varieties: the solid form, and in association with pseudomucinous cystomata. This growth displays a special tendency to develop cavities of varying size, containing colloid or mucoid material. It does not cause any conspicuous symptoms. Both the granulosa cell and Brenner tumours occur most frequently after the menopause. "Follow-up" data were available in ninety-six cases of the granulosa cell tumour. Of these, recovery after operative removal of the tumour is recorded in thirty-two cases. Forty-two patients were reported well for periods of from one to ten years after operation, and twenty died at varying periods after operation. Six died from metastases. In the Brenner tumour group thirty-nine patients have been traced, and of these twenty-seven were well at varying periods after operation and twelve died, six deaths being within a year of operation. One patient died from metastases.

## Pathology

### 388 Hypoglycaemia in Epilepsy

Fasting blood sugar determinations have been performed in ninety-two cases of idiopathic epilepsy and sixteen non-epileptic cases by G. N. TYSON, LOUISE OTIS, and T. F. JOYCE (*Amer. Journ. Med. Sci.*, August, 1935, p. 164), who report that abnormal carbohydrate metabolism appears to be associated with at any rate one type of epilepsy. Although eighty-five of these epileptic patients were receiving luminal, which may cause a rise in the fasting blood sugar level, 56.4 per cent. of the group showed subnormal levels in comparison with only 12.5 per cent. of the non-epileptic group. The glucose tolerance tests pointed strongly to the fact that there is a correlation between abnormal glucose tolerance and the frequency of the epileptic seizures, both during the test and during the patients' institutional life, but it was noted that the seizures which occurred during the tolerance tests were as likely to occur at medium as at low blood sugar values. Three types of response to the glucose tolerance test are described. In the first the curves did not deviate much from the normal, and the patients had on the average only one grand-mal seizure each month. In the second group there was exaggeration of the peaks and valleys of the curves, and the incidence of grand-mal attacks was 884 r

greater. In the third group there was a delayed return to minimum values which were subnormal, and the patients had an increased tendency to epileptic fits. It was apparent that as a group these epileptic patients showed an abnormally low amount of sugar in their blood, and none of them had a fasting blood sugar value that was consistently normal.

### 389 *Listerella Monocytogenes*

C. V. SEASTONE (*Journ. Exper. Med.*, August, 1935, p. 203) draws attention to a little-known organism which, however, seems to be widely distributed. In 1926 Murray, at Cambridge, studying a disease of his stock rabbits, isolated a small Gram-positive bacillus, to which he gave the name *Bact. monocytogenes*. A similar organism was reported the following year by Pirie in South Africa, where it was giving rise to a plague-like disease in gerbilles. In 1931 Gill, in New Zealand, demonstrated the organism in the brains of sheep suffering from an epizootic mid-brain encephalitis known as "circling." The same organism was found by Jones and Little to be the cause of sporadic bovine encephalitis in New Jersey. A fowl disease characterized by massive necrosis of the myocardium was found by Ten Broeck at Princeton to be due to this bacillus. Finally, in 1934 two reports appeared of cases of meningo-encephalitis in human beings caused by the same organism. Bacteriologically, all the strains isolated are found to resemble each other closely, though antigenically the original strain of Murray's appears to differ from the rest. The generic name *Listerella monocytogenes*. Inoculation intravenously into chickens, rabbits, or guinea-pigs calls forth an unusual blood response characterized by a marked monocytosis.

### 390 Intravenous Sucrose in the Reduction of C.S.F. Pressure

BULLOCK and others (*Amer. Journ. Physiol.*, May, 1935, p. 82) observed the cerebro-spinal fluid pressures of narcotized dogs for twelve hours after intravenous injections of sucrose, dextrose, and sodium chloride. The latter two substances reduced the pressure for three hours, and then the pressure rose above the control level. From 3 to 8 grams of sucrose per kilo body weight in 50 per cent. solution produced a fall in pressure of from 50 to 150 mm. in about six hours. No secondary rise was observed due to sucrose. The sucrose also caused an active diuresis.

### 391 Rapid Test for Syphilis

G. F. LAUGHLIN (*Canadian Med. Assoc. Journ.*, August, 1935, p. 179) describes a modification of the agglutination test for syphilis, and claims for it reliability and rapidity. The antigen is similar to that used in the Kahn test, but with the addition of 6 mg. of pure cholesterol to each cubic centimetre. It is modified by the further addition of some fat stain (Scharlach R, preferably, or Sudan III) and of tinct. benzoin. co. Microscopical slide preparations are made of the mixture of the antigen and the patient's serum, and flocculation occurs rapidly in positive specimens, visible to the naked eye in one minute. Negative readings should not be accepted until after the lapse of at least ten minutes. Reactions within two minutes are classed as strongly positive. In a series of 400 cases there was 98 per cent. agreement between the findings by this method and the Wassermann test, and 99 per cent. agreement with those of the ordinary Kahn test. Laughlin commends this procedure as being inexpensive, easy to perform, and rapid as regards results; the readings are more distinct, since they depend upon an agglutination of coloured particles in an unstained medium. Since it resembles the methods used in typing blood, it is easily practised. The reagent is stable for several weeks, and is quickly available for emergencies. The degrees of positivity can be graded, and accuracy has not been sacrificed to secure speed or simplicity. The test requires only small amounts of materials.