enough to have his nutrition stimulated by it, will produce absence of urates from the blood, and so long as it continues to do so there will be no arthritis. An excess of uric acid is being introduced, but it does not remain in the blood because the conditions are unfavourable to its solubility.⁴ Hence meat diet may prevent rather than produce arthritis.

Unfortunately, however, some patients are too old, others are already too feeble and wasted, to respond to any stimulus; and others may at first respond to the stimulus of meat diet, and later, from old age or other causes, fail to do so, and then their blood will become a good solvent of uric acid,⁵ and all the urate they have previously been introducing in meat diet, or retaining with drugs or mineral waters, will come through their blood and produce all the worst effects of severe uricæmia. For this reason I believe that the other way out of the difficulty—namely, to prevent the production of (1) by diminishing the intake and formation of uric acid is decidedly the better of the two; and it is by no means as difficult to accomplish as some would have us believe.

I conclude, therefore, that drugs which clear the blood of uric acid may, if there is much of it in circulation when they begin to act, produce an arthritis, but if there is but little in circulation the signs of arthritis may be so slight as to escape notice. After the first arthritis is over, and so long as they keep the blood clear of uric acid, they will prevent rather than produce arthritis. Meat diet, or uric acid itself regularly administered, act in the same way, and may produce the same results.

THE VISUAL TESTS FOR RAILWAY SERVANTS AND MARINERS.

By J. B. LAWFORD, F.R.C.S.ENG.,

Ophthalmic Surgeon to St. Thomas's Hospital, and Assistant Surgeon to the Royal London Ophthalmic Hospital; Member of the British Medical Association Committee for the Efficient Control of Railway Servants' and Sailors' Eyesight.

THE two cases of which I give brief notes have come under my notice within the last three weeks at Moorfields Eye Hospital. In both instances the lack of a properly conducted examination of the eyesight has proved a serious hardship to the individual; and although it is a matter for congratulation that in the case of the railway official the tests are now sufficiently well carried out to detect his colour blindness, it is more than likely that the examiners who passed this man as fit for a fireman also passed other men with equal defect as fit for engine drivers.

CASE I.—W. B., aged 30, an engine driver's fireman in the employ of one of the large railway companies, came to the hospital to ask if he was colour blind. He had been examined before promotion to the rank of engine driver twice in the previous week, and had failed in the colour tests on each occasion. The examiner was an "inspector," not a medical man. The patient's eyes are perfectly sound, his acuity of vision and refraction normal, but he is the subject of typical red-green blindness. He entered the railway company's service eleven years ago as engine cleaner; four years later he became fireman on a locomotive after passing the so-called tests for vision and colour vision. He is now, seven years later, qualified as an engine driver, but is thrown out by reason of his colour blindness, which ought to have been detected at the previous examination. The examiner was not the same on the two occasions.

CASE II.—W. W., a sailor, aged 33, came to the hospital complaining that he could not see properly when on the look-out. He had been at sea since boyhood, and had only recently found his sight defective. On examination, he was found to have healthy eyes, but with abnormal refraction—a high degree of hypermetropia. With suitable lenses his vision was normal; without them it was reduced to $\frac{1}{3}$, and this he found insufficient to enable him to "pick up" lights, etc., at sea. Colour vision was normal. Thus, after spending the best years of his life, he becomes disqualified for his calling by reason of a defect which, although latent, could easily have been detected by a skilled examiner before the lad went to the sea.

⁴ See paper in BRITISH MEDICAL JOURNAL, December, 1894.

⁵ *Uric Acid*, Second Edition, p. 120.

These cases are illustrative of several of the points in relation to the testing of vision of railway servants and sailors—both from the side of the travelling public and that of the men themselves—which the Committee of the British Medical Association have recently brought before the notice of the Board of Trade. I have therefore thought it worth while to send them to the BRITISH MEDICAL JOURNAL for publication.

A CASE OF SCARLET FEVER COMPLICATED BY ABSCESSES OF RIGHT EYELID AND OF TIBIA, AND BY BRONCHO-PNEUMONIA: RECOVERY.

By MARK JACKSON, M.D.,

Surgeon to the North Devon Infirmary.

THE publication of the cases of scarlet fever with œdema of the eyelid by Dr. Sidney Phillips in the BRITISH MEDICAL JOURNAL of January 26th, 1895, has induced me to send you the notes of a similar case.

A boy, aged 12, was sick on August 25th, 1894, and complained of sore throat, which developed into scarlet fever followed by "profuse desquamation of the skin." The rash, when the case was first seen in bed on August 31st, resembled measles, and was accompanied by marked congestion of the conjunctivæ. The temperature for the first week ranged from 103° to 104° F.

On September 2nd, there was noticed slight œdema of the right eyelids, chiefly of the upper lid. This subsided temporarily, but by September 8th the right upper lid had become very œdematous, red, and shiny, occluding the eyeball, though pus issued from between the lids. On September 16th, this swelling burst and discharged pus freely.

The boy was noticed to be slightly deaf on September 8th, and there was enlargement of the cervical glands of both sides of the neck. On this day too the temperature rose from 101° to 103.6° F., with pulse-rate of 106.

Next day signs of broncho-pneumonia were detected in the left lung, with more general bronchitis on the right side. About this time there was otorrhœa from the right ear, accompanied by œdema of the scalp above the right ear and over the mastoid process with tenderness down the right side of neck. Movement of the head was resented because of the pain induced.

On September 10th the pulse was 102, the temperature 103.4°, and the respirations 36. There was free sweating, more marked on the left side of the face, and the patient complained of feeling cold. The conjunctiva of the left eye was very congested; the pupils were equal and there was no squint.

On September 14th the pulse was 108, the temperature 101.6°, and the respirations 36. He had complained of pain in the left leg on September 13th. There was slight swelling over the tibia about 2 inches from the knee-joint. The following night the boy was very restless and could not sleep owing to the pain in the leg. The left pupil was dilated.

On September 21st chloroform was given and an incision made into the swelling over the tibia, which discharged pus, exposing the bone. Later it was found necessary to make a counter-opening at the posterior surface to secure better drainage, and convalescence was soon established and the lung symptoms cleared up. There was a trace of albumen in the urine on September 11th.

REMARKS.—It will be seen that this case resembled closely those published by Dr. S. Phillips, though further complicated by abscess over the tibia and broncho-pneumonia of the left lung. For days the boy's condition was most critical and I feared suppurative meningitis. It can scarcely be doubted that infective elements obtained entrance into the circulation and caused the two abscesses of the lid and of the leg and also the broncho-pneumonia. œdema of the lid was noticed as early as September 6th, before the occurrence of otorrhœa had been observed. Dr. Macewen, in his able work on *Pyogenic Diseases of the Brain and Spinal Cord*, states that "in thrombosis of the cavernous sinus the eye symptoms, though unilateral to begin with, become bilateral at a later

stage," and urges that "this alternation of symptoms from one eye to the other is a diagnostic distinction between inflammations confined to the orbital cavity and cavernous sinus thrombosis." In this case, as in those published by Dr. Sidney Phillips, the eye symptoms remained unilateral, and what is more, all the cases recovered, whilst Dr. Macewen states that "absolutely all those cases due to infective thrombosis (of cavernous sinus) end fatally."

ON TAPPING THE PERICARDIAL SAC.

By GORDON SHARP, M.B. EDIN.,

Late Research Scholar in Pharmacology, Owens College.

In December, 1891, a girl of 11 was seen in a second attack of acute rheumatism, the first attack having taken place some years previously, when she was under the care of another practitioner. After the first few days following the onset of the symptoms of rheumatism, the breathing became rapid and laboured, and on examination of the precordial region a to-and-fro murmur was heard over the whole area. Dulness extended from the upper border of the second rib on the left side down to the upper border of the fifth rib on the same side as the child lay on her back. Sodium salicylate was given in 10-grain doses every four hours for three or four days. The joint pains were relieved, but the effusion into the pericardial sac increased rather than decreased, and the breathing went up to 60 in the minute.

In consultation it was agreed to tap the pericardium, but to confirm the diagnosis I inserted a hypodermic syringe of 20 minims' capacity between the third and fourth ribs on the left side, and, close to the sternum, withdrew a syringe of serous fluid. In a few minutes the patient breathed more freely and with less frequency, illustrating a point that has been emphasised by Professor Sir Thomas Grainger Stewart, namely, that the withdrawal of even a small quantity of fluid from the vicinity of a vital organ makes a profound impression upon that organ. Had I rested content with the benefit received by my patient it might have been the best plan, but, hoping to get further benefit, I was advised, and thought fit to remove a larger amount of fluid by means of the aspirator. I thrust in the needle near the original spot, some five hours after the first operation and withdrew 2½ fluid ounces of a serous fluid tinged with blood.

I may say I selected the space between the third and fourth ribs because it appeared to me to be the spot where the dulness was most marked.

Immediately after this second operation the breathing became more laboured, and the child appeared to be distressed to an alarming degree. However, in the course of half an hour she calmed down, and became comparatively comfortable; but this was only of short duration, for in the course of an hour or more the breathing again became laboured and more frequent, and the patient gradually sank, death taking place twelve hours after the second aspiration.

I do not think that I should again tap the pericardium in a case of effusion attendant on rheumatism, for I believe such cases are best left alone. In confirmation of my belief I may mention a case which I had under my care some twelve months after the one just related.

A woman, aged 30, had repeated attacks of acute and sub-acute rheumatism, and in connection with the one I am about to relate she had considerable effusion into the pericardial sac. The breathing was much affected, and to one inclined to aspirate there was every indication for performing the operation. Instead of doing this, the salicylate of sodium was given in medium doses, and a large amount of liquid nourishment was administered at frequent intervals. The result was that the woman got well in the course of a few weeks.

WILLS AND BEQUESTS.—The late Mr. William Frederick Rawdon, of Clifton, York, has by his will bequeathed to the Middlesex Hospital, for the female cancer ward, called when he was a dresser there in 1822-23 Whitbread's Ward, £1,000; to the York Dispensary, £2,000; the York County Hospital, £1,000.

MEMORANDA:

MEDICAL, SURGICAL, OBSTETRICAL, THERAPEUTICAL, PATHOLOGICAL, Etc.

ACUTE DERMATITIS.

C. J. was seen by me at my own house on December 11th, 1894. The girl, aged 22, an outdoor worker at a farm, had hitherto been healthy. On December 4th, while menstruating, she first felt the itching; it began in the thighs and forearms. On the 11th there was no eruption on the skin; the bowels were very costive and the breath foul; the tongue was covered with a yellow fur; there had been no rigors. On December 14th I was summoned to see her. The itching had now become intense; the most irritable parts were the thighs, especially the left, and the skin on the upper two-thirds of these was of a deep red colour, with papules of a faint red colour closely studded over the more deeply-coloured surface. The anterior and inner surfaces of the thighs were of a darker red than the external and posterior ones. The girl was not confined to bed; the pulse was 70 and the temperature normal; she did not feel ill.

On December 18th the neck and chest were covered with an eruption composed of maculæ and blotches, some of the latter being large; the arms and forearms as far as the wrist were of a diffuse red colour, with no papules; the hands and wrists were still free. The skin at the flexures of both elbows was moist and fissured, and there was induration to a slight degree there; the back was covered with an erythematous rash; the skin of the thighs was swollen, covered with minute vesicles and moist; there were discrete papules below the knees; the feet were free. The face was still unaffected; the axillary and inguinal glands were enlarged and tender, the submaxillary and cervical glands unaffected.

On this day for the first time the patient felt ill; on sitting up in bed she became giddy; the pulse was 72 and the temperature 100; the bowels were constipated, the breath foul, and there was no appetite. The patient noticed that as soon as the rash appeared on any part the itching ceased there.

On December 19th the face was still free, the hands and wrists covered with raised red spots; the right elbow was so much swollen that it was kept in an extended position; the left thigh had begun to desquamate; the feet were now involved; the pulse 72, the temperature 100°.

On December 21st the pulse was 72, the temperature normal, and appetite was returning. On the right cheek was one large red blotch, nearly as large as a penny piece, the rest of the face being free; the eruption on the neck and chest had now become confluent, and was covered with vesicles; the thighs and flexures of the elbows were casting off flakes of varying size, those shed from the left thigh being as large as a five-shilling piece. For the following four or five days desquamation continued, the hands and feet now throwing off large flakes; the one patch on the face threw off powdery scales, as did also the neck. There were no scabs; the hair and nails were not affected; there was no albuminuria.

On January 10th the skin over the affected surfaces was renewed except that on the feet; that over the flexures of the elbows was somewhat cracked; there was no induration; no other member of the family was affected.

On January 12th the dermatitis again set in, and ran a course similar to that of the first attack. It was preceded by urticaria, which appeared one hour after the patient had eaten a hard-boiled egg.

Jedburgh, N.B.

DONALD MACGREGOR, M.A., M.D. EDIN.

MALE NURSES' CO-OPERATION.—We are glad to learn that the first year's work of the Male Nurses (Temperance) Co-operation has been most successful. The average net earnings of each man have been at the rate of £97 2s. 5d. for the year. The Co-operation has had to meet a certain amount of prejudice against male nurses on the score of their tendency to intemperance, but this difficulty has been successfully met, and all the men employed, we are told, are total abstainers. The secretary of the Co-operation is Mr. F. Rouse, 8, Great Marylebone Street, Portland Place, W.