mended the inhalation of a terebinth vapour or steam of hot water and turpentine.

Dr. MACKENZIE (Burnley) referred to the fact that many patients recovered rapidly with no medicinal treatment. Regarding the pain of diaphragmatic pleurisy associated with pneumonia, which was situated in the abdomen and over the shoulder, there was frequently in these painful areas distinct evidence of hyperæsthesia, that of the shoulder being due to the irritation being conveyed by the phrenic to the root of the fourth cervical nerve, producing the hyperæsthesia in its peripheral distribution over the shoulder.

Dr. MANSSEL SYMPSON (Lincoln) said that the difficulty of diagnosis from the other acute febrile affections of infancy, and the great clinical likeness of pneumonia to them was an argument for the specific nature of that disease. The collapse which occurred at the crisis was due to the specific action of the poison on the heart. Another point of much interest was the association of apical pneumonia with vomiting, convulsions, great headache, and occasionally hemiplegia, which was luckily transient. Whether this were due to the influence of hyperpyrexia, as Dr. Ashby had suggested, or to any other cause, such as œdema of the brain (to which the vomiting had been attributed) was at present uncertain. In cases of central pneumonia, no pain might be complained of anywhere owing to absence of implication of the pleura; as the lung trouble extended outwards, pain in the side or belly might appear. In treatment, alcohol should be reserved entirely for the period of crisis and collapse. Digitalis should be given then as a general heart stimulant, as the failure was not entirely on the right side. Soup was most useful, and Benger's food also in place of beef tea.

Mr. FREER (Birmingham) narrated a case of pneumonia in which antifebrin had proved distinctly disadvantageous, whilst

Dr. J. W. SMITH (Ryton-on-Tyne) stated that he had obtained benefit from the use of the same drug in an analogous case.

Dr. KING (Chester) wished to draw attention to the fact that in most cases of croupous pneumonia in its earliest stages over the suspected area the breathing was slightly more distant. With regard to the treatment, he placed great value upon the use of the icebag applied, not directly, but over two layers of flannel, and used intermittently, according to the effect produced. The local abstraction of blood by leeches was also very useful.

The PRESIDENT (Dr. Lewis Marshall) observed that diagnosis was of momentous importance, and very difficult. Careful attention should be given to it at the outset. He referred to the languid way in which children with pneumonia would allow an examination, as contrasted with the resistance of a child with broncho-pneumonia. There was no specific remedy, and the physician should not be satisfied with a mere depression of fever; the course rendered diagnosis more difficult. He also touched upon the abuse of heart tonics and alcohol in the early stages of pneumonia.

Dr. SAMUEL WEST (London) spoke of the difficulty of diagnosing between croupous and catarrhal pneumonia in children, and of the confusion which this introduced into statistics and treatment. The irregularity in the temperature of pneumonia in children was a further cause of difficulty in estimating the effect of treatment. He drew attention to two important points in diagnosis which had not been dwelt upon by previous speakers as much as they deserved: (1) The alteration in the pulse-respiration ratio, which was as marked in children as in the adult, and which in those cases where the sudden onset of acute fever was the chief symptom, might determine quite early the correct diagnosis. (2) In infants the condition of the fontanelles, which were as a rule tense and prominent in meningitis and retracted in other cases resembling meningitis—for example, the so-called cerebral pneumonia. In respect of treatment, pneumonia was a specific disease, though it might not depend upon one organism only, and there was as yet no known antidote for pneumonia any more than for other specific fevers. The treatment was therefore general and symptomatic. Among the symptoms were three of prime importance: the temperature, the dyspnoea and cyanosis, and the cardiac failure. The fever did not require active treatment unless it was excessive. So far from fever being in itself bad, it was

probably the natural reaction of the organism against the disease; but it might outrun itself and become excessive and then require treatment. Antipyretic drugs, in his experience, proved to be of very doubtful value. Baths and packs had their uses, but also abuses. Of the icepack he could not speak as enthusiastically as Dr. Lees. A simple and good method of cooling fever patients was the "air bath," as it had been called, the patient being simply lightly covered or placed naked under a cradle covered with a sheet. This was a simple and beneficial method. The dyspnoea and cyanosis was largely mechanical and associated with distension and probably paralytic failure of the right heart from over-distension. For this there was but one means of relief—namely, bleeding; not a local bleeding but a free venesection. Copious bleeding in such cases had saved many lives; yet, speaking generally, the cases in which it was indicated were far from common. Cardiac failure was recognised as one of the chief dangers and causes of death in pneumonia, but it would be wrong to think that it was necessarily and only a failure of the right side from over-distension. The poison generated in pneumonia, whatever it was, could, like that of other specific fevers, affect the muscular substance of the heart itself, and lead thus to muscular failure of the heart as a whole—of the left as well as of the right side. This could only be treated by the usual means, especially diffusive stimulants and cardiac tonics; and here it was that the use of alcohol came in. Dr. West agreed with those who had already spoken of the harm done by the indiscriminate use of alcohol in pneumonia; but for cardiac asthenia they, or similar diffusive stimulants, were essential. Among the cardiac tonics he ascribed a high place to caffeine, either by the mouth or subcutaneously.

TREATMENT OF RINGWORM.¹

[WITH DISCUSSION.]

By ALFRED EDDOWES, M.D. EDIN.,

Clinical Assistant to the East London Hospital for Children, Shadwell.

Dr. EDDOWES said that he would deal only with the treatment of ringworm of the scalp. Dr. Unna had had great success in the treatment by his method with chrysarobin. To those accustomed to use chrysarobin (chrysophanic acid), the method might be strongly recommended providing the patients could be seen sufficiently often and carefully attended to. Experience showed that Unna's plan could only be carried out under conditions which could not be secured in out-patient practice in London. Dr. Eddowes had therefore sought to modify it so as to be able to get through a large number of cases in a limited time. The result was not so rapid as with the original, but could be highly recommended. The essential preparations were (1) a sulphur and vaseline ointment about 3j to 3j, (2) olive oil, (3) a compound chrysarobin ointment containing, say, 25 grs. of chrysarobin to the 3j, the same proportion of ichthyol, and 10 grs. of salicylic acid. The plan is this:

First Week. The sulphur ointment to be applied daily. Hair to be cut as short as possible with scissors over the whole scalp. Scalp to be washed two or three times during this week with soft soap or soda and water. A cap to be worn night and day.

Second Week. The chrysarobin ointment to be rubbed well into a few patches, but not over too wide an area, or in such quantity as to run down on the face, neck, or ears: the rest of scalp to be dressed with the sulphur ointment. If the two ointments become mixed up a little it is of no consequence. A piece of oiled silk or gutta-percha tissue a little larger than the hairy scalp is then placed over the ointment, and a tightly—or rather, should I say, a closely-fitting—skull cap is then fastened over all. All ointment to be thoroughly wiped off scalp and tissue or oiled silk, and fresh ointment applied daily. The area to which chrysarobin ointment is to be applied must be regulated according to the condition of the skin and the comfort of the patient from day to day. If the skin be very intolerant of the remedy, it should be cleansed by wiping with tow or cotton wool, and be dressed with the sulphur ointment instead. If the chrysarobin be well borne, the area to which it is applied is daily extended till the whole scalp is dressed with it, but never for more than four days consecutively. At the end of four days in any case, and sooner if necessary, on account of irritation, the sulphur is entirely substituted for the "dark" (chrysarobin) ointment. During the last night of the week the scalp is well oiled, next morning well washed with soft soap or soda and water, dried, oiled, and patient brought for inspection.

Third and Following Weeks. Precisely as the second until a cure has been effected.

¹ Read in the Section of Diseases of Children at the Annual Meeting of the British Medical Association held at Nottingham, July, 1892.

The most important practical points were (1) thorough cleansing of the scalp before the employment of chrysarobin; (2) the removal of secretion and scales by means of the sulphur ointment and oil before redressing with chrysarobin. As Unna had stated, the skin should be brought back to its normal colour before the chrysarobin was reapplied. This was a point of the highest importance. If any chrysarobin found its way on to the forehead, neck, or ears, the parts should be dressed with vaseline, zinc ointment, dusting powder, or still better with zinc gelatine and cotton wool. The cap should fit closely and come well over the scalp, but not constrict any part. A cap made by the "Scottish Home Industries," answered very well. It was better than bandages or handkerchiefs, and it had the great advantage of not advertising to the public that the head inside it was undergoing surgical treatment.

Among children of the poorer classes ringworm was scattered broadcast in the schools, and Dr. Eddowes suggested that the parents or guardians should be requested to keep the hair of the children's heads cut rather short; that they should wash the scalps once a week with soft soap and warm water, and oil them afterwards or apply vaseline; and that a little oil should be used regularly for the hair. At the end of a term, especially in summer, the heads should be at once systematically examined, and the guardians of each child should be informed of the existence of any disease requiring treatment, and be requested to have it attended to during the vacation; and that on reassembling of the school their child would not be allowed to attend unless cured or so dressed as not to be a source of contagion to the other children. When under efficient treatment for ringworm of scalp, there was no sufficient reason why children should not go to school. Their hair could be cut short with a clipping machine or a metal comb and scissors, and the scalp dressed with a mild ointment such as sulphur or boric acid, and washed once, twice, or three times a week with an antiseptic soap or common soft soap—or, if preferred, a solution of soda—according to the state of the skin. If the skin were sensitive, once a week would be sufficiently often for the employment of soap. Afterwards, at any convenient time—after an examination or at the end of a term—the chrysarobin method or any other in which the medical attendant felt most confidence might be commenced. Such a preliminary procedure was sufficient to cure some cases, and always decreased the diseased area. Before concluding, he would like to say a few words on two important practical questions: How do we know when a case is cured, and can mercurial preparations be recommended? The only certain test that a case was cured was that the disease did not reappear after cessation of treatment for many weeks, but by means of a careful inspection of the cleansed scalp a very fair opinion could be formed after some experience. Doubtful hairs when extracted should show sound roots. Examination of any doubtful hairs under the microscope by the usual histological methods, of course, was of great value, but the most trustworthy test in practice was the method of taking cultivations from the hair roots, in the way taught by Unna. With regard to the use of mercurial ointments, care was required. The horny layer of the skin was damaged by ringworm, and apt to be split up by other co-existing complications that must render absorption probable.

Dr. PHINEAS S. ABRAHAM observed that the general experience still was that certain cases of *tinea tonsurans* were as intractable as ever. After trying many methods, he had for two or three years used the following inunction night and morning, by means of a stiff brush, of a pomade containing lanolin and vaseline aa $\frac{3}{4}$ ss, acid carbolic and acid salicylic aa $\frac{3}{4}$ ss to j —the scalp being shaved occasionally, kept closely cropped, and always greasy. A cap to be constantly worn (but changed, and, if of linen, boiled daily), and the head to be washed once a week with an antiseptic soft soap. A number of cases had thus been cured in a comparatively short time, but the majority had required several months of treatment. He did not regard a case as cured until, after several attempts, there could be seen no short stumps, no unhealthy or irregularly growing hairs, no scurf, and no spores in scrapings examined under the microscope. With the more obstinate cases, occasional applications of carbolic liniment of iodine had been made, or mercuric chloride or iodide

(gr. j to ij) had been added to the above ointment. While admitting a great deal in favour of Dr. Unna's method, he doubted whether it was likely to be widely followed in hospital practice at any rate, on account of the time and special manipulation required in carrying out the details. Prophylaxis was insufficiently attended to in this country. Naturally, every source of contagion could not always be guarded against, but the importance of one simple precaution should be impressed upon the minds of all parents, namely—the suggestion long ago made by Dr. Liveing—that when children were sent to the hairdresser, they should take their own combs and brushes with them. The BRITISH MEDICAL JOURNAL, in a leading article in 1885, sounded a note of warning in reference to the extensive dissemination of ringworm in board schools; and Dr. Stowers was then able to corroborate several of the statements made. Last year Mr. Malcolm Morris again brought the matter forward at the International Congress of Hygiene. It had been more than once suggested that the children in these schools be periodically examined by competent experts, and the affected ones kept apart, but nothing had been done.

Dr. BARRON asked Dr. Eddowes whether he advocated the same line of treatment to those cases of the disease found in other parts beside the scalp.

Dr. HARRISON asked whether, practically, there was any advantage of the culture test over careful microscopic examination. He also spoke of the difficulty of curing every case of ringworm in a reasonable time, because there were often isolated fertile stumps existing.

Dr. NORMAN WALKER thought Dr. Unna's chrysarobin treatment was no better than any other treatment, and that it, like salicylic acid, owed its use largely to its reducing power. As regards mercury, while not greatly in its favour, he thought it useful, but considered copper should have more frequent trials. He agreed with Dr. Eddowes that there were many varieties of ringworm, and considered that some information as to prognosis might be got from differentiating these varieties. In cultivating he often used a simple solution of dextrose made faintly acid instead of human complicated medium. As regarded tests for recovery, there was no doubt about the advantages of cultivation. Very few men would take the trouble to examine under the microscope twenty or thirty hairs, which number could easily be dropped into a tube. He thought Duckworth's chloroform test had some advantages, though it was not perfect.

Dr. ABRAHAM, in answer to Dr. Eddowes, said that he did not find any crust or deleterious effects after the carbolic-salicylic treatment. He observed that in his experience the oleate of copper method was by no means so satisfactory as had been expected. The chloroform test he found not so certain in the very slight and doubtful cases.

Dr. EDDOWES, in reply, said that he did not know any remedies which really penetrated deeply into the follicles. It was necessary to be satisfied with checking the growth of the fungus in the depth of the follicles, and killing it when it came nearer to the surface. It was not necessary to treat patches on the body like those on the head, as they were much more easily cured. He was not inclined to use chrysarobin to the exclusion of other remedies. It had its drawbacks, and therefore in practice he stopped it if necessary, and only recommended it when the skin appeared almost normal. It was a mistake to use it daily and excite a chronic dermatitis. It was often necessary to give the skin rest; vaseline alone might be used for this purpose in some cases, but the fungus should never have a chance; we should keep out oxygen as much as possible.

UNIVERSITY OF VIENNA.—The total number of students in all four faculties of the University of Vienna during the winter semester of 1892-93 was 5,995, of whom 2,879 belonged to the medical faculty. Of these, 2,461 were Austro-Hungarian subjects and 418 were foreigners. The largest contingent of the latter came from Russia, which was represented by 94 students, the United States standing second on the list with 89, and England being well down towards the other end with 11. Spain was the only European country unrepresented. Asia sent 3 students, while Africa was conspicuous by its absence. The teaching staff comprised 57 Professors, 70 *Docenten*, and 223 Assistants.