Six dwellings had been built in 1897, about 80 yards from one of these heaps, and on 1st May 1909 the occupants of these dwellings numbered 21. During the morning of this date no fewer than 6 persons were found unconscious in the houses, while 7 others were more or less severely affected. No smell was detected in the houses, and the cases at first gave rise to great mystery. Gas poisoning was, however, suspected, and this was borne out by the death of two birds within five minutes, when placed at the top of the cellar steps of one of the houses, and also by the fact that a Davy lamp went out when lowered to within a foot of the floor of the cellar.

Spectroscopic examination of the blood in some of the cases proved the presence of CO haemoglobin, while there must also have been present, in the atmosphere, in addition to CO, a certain quantity of CO₂.

One of the victims died after the lapse of 6 weeks, one developed melancholia, and two others are still seriously affected.

Various theories were suggested to account for the poisoning, viz. an escape of coal gas, sewer gas, escape of gases from the neighbouring coal measures, and lastly, gases produced by the underground smouldering of refuse aided by the subsidence of land, of which cracks in the foundations of the houses afforded ample evidence.

The latter theory appeared to be conclusive to the minds of those who made an investigation into the cause.

Similar accidents have been recorded by Reid and Taylor, but it is interesting to note that in the present instance the ground was not frost-bound—a factor of importance in the other instances referred to.

DISEASES OF THE EAR.
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NON-OPERATIVE TREATMENT.¹

The omission of otoscopic examination often leads to errors in diagnosis. This may, of course, easily happen where there are no definite ear symptoms, or when the constitutional symptoms are such as to mask any which might be associated with ear trouble. Thus, for example, labyrinthine disease, giving rise to giddiness, vomiting, faintness, &c., is not infrequently mistaken for some cerebral or even

¹ Non-operative Treatment of Diseases of the Ear (series of lectures by Professor Schwarze, of Halle a/S., Münchener medizinische Wochenschrift, 25th March and 8th June 1909).
digestive disorder. Pyæmia from otitic thrombo-plebitis has been mis-
taken for pyæmia of cryptogenic origin, for typhoid fever (especially
before the introduction of Widal’s test), and for acute articular
rheumatism. The latter, it should be remembered, at its commence-
ment usually singles out the smaller joints, whilst in pyæmia the larger
joints are generally attacked. Pyæmia following on otitis is also some-
times confused with malaria, especially where rigors are marked. It
sometimes happens that ear disease is diagnosed where none exists, in
cases, for example, of neuralgia, caries of the molar teeth, ulceration in
the nasopharynx, and rheumatism. Patients suffering from anaemia
often complain of noises in the ears with no impairment of hearing.
The importance, then, of otoscopic examination cannot be questioned.

The External Auditory Meatus.—Cases of foreign body in the meatus
are particularly liable to suffer from ill-advised treatment. Foreign
bodies, if left alone, seldom do any harm, and there is no urgent call
for their immediate removal. The patient’s statement should always
be verified by means of the aural speculum. The only justifiable
measure for the removal of foreign bodies from the meatus, except in
specially skilled hands, is syringing with warm water. Attempts at
removal with forceps, hairpins, or sharp hooks almost invariably drive
the body further in, and may give rise to rupture of the tympanic
membrane, injury to the tympanic cavity, facial paralysis, incurable
deafness, or even meningitis and brain abscess.

Living insects, &c., sometimes find their way into the meatus, and
may urgently demand treatment owing to the pain and tickling which
they cause. Blowing in tobacco smoke or dropping in warm water
usually suffices. Chloroform vapour, if available, is cleaner and surer.

In recent injuries of the ear, and in fracture of the base of the skull,
the ear should never be syringed, and as little instrumental manipula-
tion as possible should be carried out. An aseptic dressing should be
applied to the ear, and the patient put to bed.

Acute Otitis Media.—Schwarze approves of the application of
leeches in front of the tragus in the early stages. Later, if there
is tenderness or œdema over the mastoid process, the application
of ice is more likely to do good. Blistering behind the ear to relieve
the pain is never successful. Schwarze is an advocate of paracentesis
of the tympanic membrane to allow of free drainage from the tympanic
cavity. He also advises inflation in acute catarrhal and suppura-
tive cases after the painful stage is past. Bier’s congestion was
formerly employed by some aural surgeons. The congestion is pro-
duced by means of an elastic bandage which is fixed round the neck
sufficiently tightly to hinder the venous return slightly. The method
should be used in hospital, but only in cases where there is no sus-
picion of intra-cranial complication. Sudden exacerbations calling for
immediate operation are apt to arise in the course of treatment. The
method may give rise to a false feeling of security, for it relieves pain while rapid destruction may be going on inside the ear.

Syringing of the ear should never be carried out unless there is something to be removed by the syringing. In the first place, it alters the natural appearance of the parts by loosening and macerating the epidermis, and thus renders accurate diagnosis more difficult. Further, it often does actual harm. In catarrhal conditions of the tympanic cavity which would otherwise subside, suppuration and perforation of the membrane may be determined by warm syringing, as they often are by poulticing.

Chronic Suppurative Otitis Media.—Insufflation of powders (alum, iodoform, boracic acid) in cases of purulent aural discharge tends to cause a damming back of discharge, and is therefore a source of danger. This is especially the case where the perforation is small or high up. The procedure should only be employed where there is a very large perforation, so that there is no fear of retention of discharge, and so that it is possible for the powder actually to reach the diseased surfaces. Even then the powder should be insufflated by the surgeon himself, and only in minimal quantities.

Middle Ear Catarrhs.—Massage in various forms has been used in the treatment of these conditions.

1. Stroking from the mastoid towards the angle of the jaw is of value in promoting absorption of exudate in the tympanic cavity, and in hastening the resolution of small lymph nodules about the mastoid. Tinnitus is often improved at the same time.

2. Hommel's pressure massage—that is, rapidly repeated pressure with the finger on the tragus—often produces considerable improvement. The improvement is, unfortunately, usually, only temporary. The method, however, does no harm, and is easily carried out by the patient himself.

3. Massage by the Delstanche masseur, which produces alternate compression and rarefaction of the air in the meatus, is recommended by some. Schwarze admits that tinnitus may be improved by the use of this apparatus, but has found no definite permanent increase of the hearing power. It is no better than tragus pressure, but it impresses the patient more, and helps the mental depression which is so often associated with these chronic catarrhs. It should be remembered that the instrument may cause pain and often injury to the ear—stretching of the tympanic membrane and ligaments of the ossicles, rupture of the membrane, bleeding into the tympanic cavity, and congestion of the inner ear, accompanied by giddiness, vomiting, fainting, &c. One should be very cautious in recommending this or any similar form of apparatus, especially for use in the patient's own hands.

4. Massage by means of Lucae's pressure-probe, by which pressure is applied directly to the chain of ossicles, can only be carried out by
the surgeon. It is a proceeding which is usually very painful to the patient, and it may cause ecchymosis or rupture of the membrane in unskilled hands. Lucæe says it increases the hearing distance. Schwarze has not obtained good results with it, but thinks it worth a trial where the membrane is insensitive and thickened and suggestive of adhesions in the tympanum.

On the whole, mechanical methods may produce temporary improvement in early cases, but cannot possibly do so in advanced cases where the stapes is fixed by bony ankylosis in the oval window. Removal of the stapes has been practised in these cases with results which, though good at the time, proved to be only temporary.

Fibrolysin administered by injection under the skin of the back was used by Schwarze in fifteen cases of adhesive inflammation in the middle ear. Good results were obtained in only two cases.

Otosclerosis. — Recent pathological findings show that in these sclerotic conditions there are changes in the bony capsule of the labyrinth, in the modiolus, and in the ossicles. The cases are not always dry catarrhs of the mucosa. One finds in the petrous pyramid an osteitis allied to arthritis deformans, with absorption of the dense bone and its replacement by loose bony masses, leading to osteo-porosis and later osteo-sclerosis. Fixation of the stapes is an incident in the progress of the disease. The process is due to constitutional causes, is usually bilateral, and often hereditary. There are various theories as to its causation. Habermann and others think it is parasyphilitic. Some associate it with rheumatic gout, or with scrofula and anæmia. Others regard it as of neuroparalytic origin. The condition calls, then, for constitutional treatment. Phosphorus may do good in the early stages, but not in the later. Siebenmann states that he has been able, by the administration of phosphorus, to arrest the course of rapidly progressing cases and to improve the noises and deafness. Politzer believes in potassium iodide, but Schwarze, in cases of syphilitic origin, prefers inunction. Cases of not more than six weeks' standing are cured rapidly by this method, but old-standing cases are hopeless. When the labyrinth wall is seen through the membrane to be hyperemic, Turkish baths are of benefit. Pilocarpine may be employed for the same end, but Turkish baths are less likely to do harm even though continued over a long period. Courses of treatment at Wiesbaden, Carlsbad, &c., are also to be recommended in such cases. The neurasthenia which is often associated with the ear trouble must not be neglected, but cold water cures, and especially sea-bathing, which invariably makes the symptoms worse, are to be avoided. Luke-warm salt baths and residence in a wooded mountainous region (1500-2000 feet) give the best results.

Zimmern and Gendreau¹ claim that they have obtained good

¹ Arch. d'élec. med., 10th October 1909.
results in the treatment of these conditions by means of galvanic and high-frequency currents.

Aimless inflation of the middle ear, especially by Politzer's method, in incurable forms of sclerosis is very bad practice. In these cases the Eustachian tube is usually abnormally patent, and the only results of inflation are stretching of the tympanic membrane and repeated impaction of air on the labyrinth. In unilateral cases, the sound ear cannot fail to be damaged by repeated Politzerisation.

NEW BOOKS AND NEW EDITIONS.

Third Report of the Wellcome Research Laboratories at the Gordon Memorial College, Khartoum. By Andrew Balfour, M.D., Director. Pp. 477. London: Baillière, Tindall & Cox. 1908. Price 21s.

Review of Recent Advances in Tropical Medicine, &c., &c.: Being a Supplement to the above. By Andrew Balfour, M.D. Pp. 251. London: Baillière, Tindall & Cox. 1908. Price 10s. 6d.

The previous reports of the Khartoum laboratories were so able and interesting that the issue of another report was eagerly awaited. An erroneous idea was abroad that the reports were issued annually, and there was some disappointment at the tardy appearance of the third volume. The director points out in the introduction that the reports are not issued at any fixed times, but only when sufficient material has been collected to render publication advisable.

We may say at the outset that those who have expected this report to be even more valuable than the previous ones, good as they were, will not be disappointed; it is almost twice the size of the last report, and contains 28 coloured plates and 333 other illustrations, maps, &c.

The scope and value of the report are enhanced by the inclusion of the results obtained in research by workers not actually members of the laboratory staff, including medical and veterinary officers and others.

In addition to the Review of Recent Advances in Tropical Medicine (noticed below), another new feature is the insertion of a chapter headed Sanitary Notes, in which, by a detailed description of the mode of carrying out sanitary measures in and about Khartoum, an object-lesson of how such work should be systematically and scientifically performed is afforded to medical officers of health, whether serving at home or abroad.

This, together with chapters on Hæmogregarines, Piroplasmosis, Spirochætosis of Sudanese Fowls and Trypanosomiasis in the Anglo-