

source of heat. In use no obvious air entry or exit should be left. Under average conditions (with two double-wick stoves) the temperature inside the blanket chamber is raised to about 120° F. in twenty minutes; at this stage, when the apparatus is in use for ordinary drying, the roofing blanket is pushed a little on one side to allow of ventilation, and the contents will then rapidly dry off. If the contents are very wet the temperature in the chamber should be raised higher before free ventilation is allowed.

Simple suspension of the frame, as described above, is the most practical arrangement for forward area work; under stationary conditions it may be supported on a skeleton stand.

Use as a Hot Air Sterilizer.

The same apparatus can be used for sterilizing small batches of clothing when a steam disinfectant is not available. The chamber should then be formed by at least a double fold of blanket all round, and three Beatrice stoves used. With this arrangement the temperature in the chamber can be raised to about 200° F. in twenty minutes. An exposure to this temperature for half an hour will kill lice eggs and the scabies parasite, as the garments, turned inside out, or blankets, being suspended, have their surfaces well exposed. This method does not damage the leather of breeches.

Hot Air Generator.

In an advanced dressing station the first method for raising the wounded man's body temperature is the hot air bath. For this purpose a hot air generator, as shown in the figure, is convenient (Fig. 2). It is made from a standard biscuit tin, or a four-gallon petrol tin; the latter is the stronger. The side of the tin is cut away except for a strip about an inch wide at the top, and a door may be put in the gap so made. The top is cut out and a domed cap fitted in its place. Into one side of the domed cap a short length of tin pipe is set, and a further series of lengths of tin pipe,

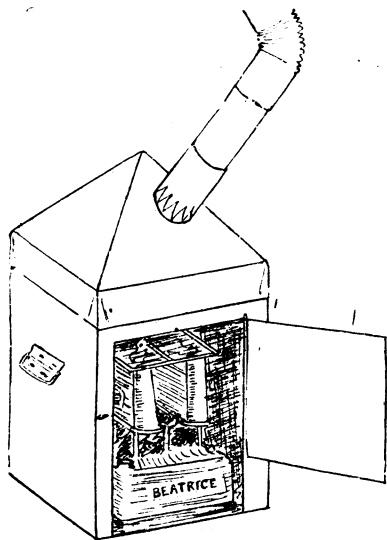


FIG. 2.—Heat generator made from biscuit box or four-gallon petrol tin.

prepared so as to telescope together, form the delivery pipe; the right angle bend is formed by an elbow of the ordinary pattern French stove piping. Solder, though useful for finishing off the dome, should not be relied on for the fixation of any part. If available, sheet asbestos may be applied to the dome and elbow. The addition of handles to the sides of the box is convenient. A double-wick Beatrice stove is placed in the box as a source of heat. The Primus pattern of stove is less reliable, and is not altogether safe for use in the closed apparatus described.

To give a bath, a properly blanketed stretcher on trestles is used, and an air chamber formed over the trunk of the patient by means of a simple cradle (Fig. 3), the whole



FIG. 3.—Skeleton cradle for hot-air baths. Made from aluminium splinting.

being covered by two or three blankets. The cradle frame may be made of skeleton splinting from the field fracture box or of stout wire. This arrangement allows dressings or operations to be carried out on the extremities while the heat is being applied. The box containing the stove is placed under the middle of the stretcher, and the piping arranged to deliver hot air just above the stretcher level. The box and contents are thus well out of the way, and only the pipe elbow projects from beyond the stretcher pole. With this apparatus a hot-air bath of from 130° F. to 300° F. can be given. For the wounded man a fifteen minutes' bath at about 130° F. is, I think, most satisfactory. The high temperature bath should be reserved for the treatment of urinary cases or myalgia under stationary conditions.

Memoranda:

MEDICAL, SURGICAL, OBSTETRICAL.

DISORDER OF THE RIGHT EXTERNAL SEMICIRCULAR CANAL.

THE two following cases, which present many points of similarity, are of interest:

1. A young woman who had previously suffered from three attacks of retrobulbar optic neuritis, after partaking at breakfast on January 15th, 1918, of rolled ham, which was noticed to be of unusual colour and from which fat was absent, found herself on the way to business falling towards a friend on her right. She struggled against this symptom and giddiness during three days. Then vomiting set in. When seen, there was constant lateral nystagmus. The patient could not stand unsupported, and there was vomiting of cerebral type. There was no deafness to speech test, and no tinnitus. The reflexes of the lower limbs were normal. Twelve days later the nystagmus could be barely elicited; the patient could walk and stand. The condition was that of one after nine days in bed.

2. A man aged 53, after partaking at breakfast on January 26th of ham which was noted to be watery, went to business. Some three hours later he suddenly collapsed on to the floor of his office. He was removed home. His gait as he was helped was to the uninitiated that of a drunken man, and many have been the jokes at his expense. Seen five hours later, he was retching and vomiting mucus like an alcoholic in the early morning; he is not alcoholic. Nystagmus, lateral, was most marked. He could not stand or walk unaided. There were no subjective aural sensations, nor was there any deafness to speech. Now, eighteen days after the onset, there remains only slight incapacity for mental activity. During a week there was slight hissing tinnitus, and for a few days there was a distinct tendency to fall to the right.

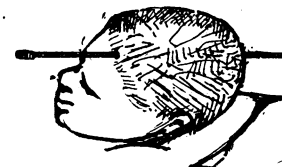
In neither case was there paralysis of cranial motor nerves, nor drowsiness, nor any definite ptosis.

H. D. O'SULLIVAN, B.A., M.B., B.C. Cantab.

Burton-on-Trent.

THROUGH-AND-THROUGH RAMROD WOUND OF HEAD.

ON November 9th a girl, aged 8, was brought to me with the ramrod of a gun fixed firmly in her head. It appears that a gun had been left on a shelf, loaded with the gunpowder charge only, and the ramrod left in it. The child in pulling something off the shelf had caused the gun to fall forward, when it went off. The ramrod had entered the cranium one inch above the top of the forehead, half an inch to the left of the middle line, and was protruding for some four or five inches from a point half an inch to the right of the same line and two and a half inches above the occiput. On admission the child was conscious, but the pulse was scarcely perceptible. There was no bruising of the skin, nor any haemorrhage, and the ramrod was so firmly fixed in the skull that the point had to be sharply tapped with a mallet in order to loosen it sufficiently to allow of its withdrawal. For



this the child was given chloroform and the head shaved and the protruding end of the ramrod was painted with iodine before putting it back through the skull. Very slight haemorrhage at the point of exit followed the withdrawal. For the first two days the patient vomited when any food was given her by the mouth, and for the first day the pulse was very slow (48) and intermittent. By the morning it was regular and of good volume. The temperature was 100.8° on the first night, but by the morning of the second day both pulse and temperature were normal. During the next few days the pulse was occasionally irregular, and she complained a good deal of headache, but otherwise she made an uneventful recovery. The little punctured wounds healed in two or three days by first intention, and she was dismissed in perfect health in three weeks, having been kept in hospital long enough to make sure that no cerebral symptoms would develop later. The illustration shows the top of the head with the ramrod *in situ*.

EMMELINE M. STUART, M.B., C.M.Glas.,
Church Missionary Society, Women's Hospital,
Isfahan, Persia.

Reports of Societies.

PATHOLOGY OF MALIGNANT GROWTHS.

A MEETING of the Pathological Section of the Royal Society of Medicine was held on April 16th, when Professor W. BULLOCH, F.R.S., President, was in the chair.

Tumours Arising in Endothelium.

Dr. E. H. KETTLE, in a paper on this subject, said that such tumours were not easy to recognize, as the neoplastic endothelial cell presented no distinctive characters. Some of the accepted diagnostic features were: An undifferentiated polymorphic celled type of growth; a whorled arrangement of the cells with the formation of giant cells; the close association of the tumour cells with blood vessels; and the occurrence of narrow trabeculae or elongated channels, which might contain blood. Some of these features might equally be applied to carcinomata; others appeared to have been accepted with very little critical examination. The author had as yet examined in detail only two specimens.

1. A malignant endothelioma in a woman, aged 44, who had suffered from elephantiasis of the right leg since childhood. In 1914 the limb became extremely painful; several silk drains were inserted, but amputation was performed in 1915. Recurrence ensued, and the limb was amputated through the hip-joint. Histologically the growth consisted of alveoli of cells of very irregular shape, combined with large spaces which contained fluid blood. Clear indications could be seen of its origin, especially at the periphery, where the tumour cells occurred as branching synovial masses closely resembling vaso-formative cells, or as endothelia lining vascular spaces. A constant feature was the formation of vacuoles in the cells, and it was by the confluence of neighbouring vacuoles that the larger spaces were formed. Blood was extravasated into the spaces from involvement and rupture of capillaries in the stroma.

2. A small infiltrating growth attached to the outer margin of the left erector spinae in an infant; this showed clearly capillary formation by vacuolation of the tumour cells, and the origin of the cells of the neoplasm from the endothelium of long complex capillaries, which established communication with healthy veins.

Autologous Grafting of Malignant New Growths in the Mouse.

Dr. J. A. MURRAY showed a series of charts illustrating the typical sequences which are met with in autologous grafting of malignant new growths of the mouse. In a series of 405 experiments 302 positive results were recorded. Of the 103 negative autoinoculations death occurred in 53 before the lapse of four weeks, and could be ignored as delay for this period was common. The significance of the remaining 50 negative results (15 per cent.) was discussed. It was shown by a study of individual charts that the negative results might be due to a variety of extrinsic causes apart from lack of vitality in the cells of the graft. The conditions of experiment made it impossible to utilize negative results in individual cases. The occurrence of delayed positive results made the method quite unsuitable for diagnostic purposes in the human subject.

TREATMENT OF SYPHILIS.

At a meeting of the Section of Medicine of the Royal Academy of Medicine in Ireland, on March 22nd, the President, Dr. HENRY C. DRURY, in the chair, a discussion on the treatment of syphilis was opened by Dr. T. PERCY KIRKPATRICK. After insisting on the importance of early treatment, he said that efficient treatment included the administration of salvarsan or some analogous drug. He had himself followed the procedure recommended at the Military Hospital, Rochester Row, using either kharsivan or diarsenol, and had no doubt that the procedure was efficient. But the question arose whether treatment by galyol or some of the other preparations might not be as good or better. In the treatment of some patients in the early secondary stage, and in practically all in the late secondary or tertiary stages the course of treatment had to be much longer than when it was begun in the early stages. He had followed the plan recommended at Rochester Row of courses of salvarsan accompanied by mercury, repeated till a permanent negative Wassermann reaction was obtained. Some patients actively treated until an apparent cure was effected—whose blood serum gave a persistently negative Wassermann reaction—afterwards developed such parasyphilitic affections as general paralysis of the insane and locomotor ataxia. In such patients the cerebro-spinal fluid continued, as a rule, to give a positive Wassermann reaction. It was doubtful whether a definite prognosis should ever be given without an examination of the cerebro-spinal fluid. In the course of his paper Dr. Kirkpatrick expressed his acknowledgements to officers of the R.A.M.C.

Major H. C. DONALD, R.A.M.C., who followed, said that the use of salvarsan combined with mercury had given very satisfactory results. Under mercury alone 83 per cent. of soldiers had been readmitted to hospitals, at least once during the first year, for relapse. Under salvarsan combined with mercury the percentage was less than 1.3. The latter statement was founded on the record of over 10,000 cases. Of the drugs in use in the army kharsivan, arseno-benzol, and galyol were the most usual, and had all proved successful; galyol had not been so efficacious as the other two, but it had the advantage that it was easily mixed and could be given intravenously with a Record syringe. It must be used at once, as it quickly became oxidized. Luargol, containing silver and antimony in combination, had been used recently with apparently good results, but their permanence could not yet be affirmed. At the beginning of the war the intravenous method of administration of kharsivan—allowing the solution to flow into the veins by gravitation—was most in use. Neo-kharsivan had given excellent results. Within the last year or eighteen months there had been a tendency to return to the intramuscular or deep subcutaneous injection, and he believed that some day it would prove to be the most successful and simple method, and well suited to dispensary practice. The objection was the amount of local pain sometimes caused. The addition of stovaine had not seemed to help much, and he preferred to mix the dose in 10 or 12 minims of distilled water, to diffuse as well as possible while injecting, and to massage the buttock well afterwards. The course at present in use in the army, as suggested by Lieut.-Colonel Harrison, R.A.M.C., was as follows:

Seven weekly doses of the arsenic compound selected were given intravenously, commencing with 0.3 gram for the first three doses, 0.4 gram for the next three doses, and then one dose of 0.5 gram, a total of 2.6 grams. If administered by the intramuscular method the doses were two of 0.45 gram, followed by five of 0.6 gram, a total of 3.9 grams. A weekly dose of 1 grain of mercury as cream was given by intramuscular injection. If at the end of the course the blood reaction was negative the patient was directed to have a blood test made at the end of two, four, six, and twelve months. If the reaction was positive or doubtful the man was put on a course of potassium iodide for fourteen days, and then given two weekly doses of 0.3 and 0.4 gram of the arsenical drug and 1 grain of mercury. Tertiary cases received the same course, repeated after intervals during which potassium iodide and mercury were administered. It was necessary to determine repeatedly the Wassermann reaction of the cerebro-spinal fluid before pronouncing a patient cured.

Major Donald had not seen many cases of syphilitic diseases of the nervous system in the army during the war, but had been struck by the marked improvement of

THE death, on April 8th, of Dr. ROBERT STEVENSON of Bootle, came as a shock to many of his friends. He died after a few days' illness, from acute pneumonia, at the age of 56. He was born in Scotland, graduated M.B., C.M., Glas. in 1887, and became M.D. in 1897. He had been in practice at Bootle for over twenty years; he became a member of the Liverpool Medical Institution in 1901, and was an active member of the Council in 1917. Dr. Stevenson held many public appointments, and was honorary anaesthetist to the David Lewis Northern Hospital, Liverpool. He was held in high regard by his fellow townsmen; to a native shrewdness he added painstaking skill, and was in consequence a busy practitioner. Of a somewhat retiring disposition, he took no prominent part in public affairs, but secured the esteem of his professional brethren and a large circle of friends. The funeral took place on April 11th at Bootle Cemetery. A large number of friends and representatives of the institutions to which he acted as medical officer were present to testify to the sterling merit of Dr. Stevenson. He leaves a widow to mourn his loss, and many Bootle residents to cherish his memory.

We regret to announce the sudden death, on March 24th, of Dr. H. ALDERSMITH, formerly medical officer to Christ's Hospital, first of all when it was still in the City of London, and afterwards when it was removed to Horsham. Dr. Aldersmith studied medicine at St. Bartholomew's Hospital, obtained the M.R.C.S. diploma in 1870, and the fellowship two years later, and graduated M.B.Lond. in 1875, obtaining the university scholarship and gold medal. He also won the gold medal of the Apothecaries' Society, and a senior scholarship at St. Bartholomew's Hospital, where he held the appointments of house-surgeon and house-physician. Dr. Aldersmith was the author of a small work on ringworm and alopecia, which reached its fourth edition in 1897. He took a deep interest in the welfare of the Horsham Cottage Hospital, of which he was honorary secretary.

Dr. VERNON HAROLD STARR, Church Missionary Society, was stabbed by a fanatic at Peshawar on March 17th, and died twelve hours later, aged 35. He was the son of the late Mr. H. P. Starr, and was educated at King's College Hospital, London, graduating M.B. and B.S.Lond. in 1908. After acting first as assistant and then as senior house-surgeon of the Royal Devon and Exeter Hospital, he went to Peshawar in 1910 as surgeon in charge of the Church Missionary Society's mission hospital in that city.

Universities and Colleges.

UNIVERSITY OF CAMBRIDGE.

THE following candidates have been approved in both parts of the examination in Sanitary Science: D. W. Boswell, Edna M. Goffe,* J. L. Gregory, May I. T. Reid, A. J. H. Russell,* Jane Stalker, E. J. Tyrrell.

* Distinguished in bacteriology.

Medical News.

THE late Sir James Alexander Russell, M.D., of Edinburgh, left £33,766 gross.

SURGEON-GENERAL SIR ARTHUR W. MAY, R.N., K.C.B., has been appointed a deputy lieutenant of the county of Cornwall.

Dr. EDWARD BUXTON, M.D., F.R.C.S.E., J.P., has been unanimously elected chairman of the Great Crosby Urban District Council for the ensuing year.

Dr. SIDNEY MATTHEWS (Crawley) has been added to the Commission of the Peace for Sussex.

Dr. DONALD MURRAY, M.O.H. for Stornoway, has been adopted as the prospective candidate for the representation in Parliament of the Western Isles.

At a meeting of the Central Midwives Board on April 18th Sir Francis Champneys was unanimously re-elected chairman. Fifteen midwives were removed from the roll on their own application.

A PROCLAMATION has been issued under the new Military Service Act cancelling as from April 24th all exemptions granted by tribunals or Government departments to men between 19 and 23 in grades 1 and 2, or categories A, B1, B2, and C1, with certain exceptions, which include duly qualified medical practitioners.

Dr. J. M. H. MACLEOD will give a course of demonstrations on skin diseases, especially those met with in military wards, at Charing Cross Hospital on Tuesdays, at 3 p.m., commencing on Tuesday, May 7th. The demonstrations are open to all medical practitioners and medical students.

A SERIES of lectures and demonstrations on the feeding and care of infants will be given by Dr. Truby King, C.M.G., in the Governors' Hall, St. Thomas's Hospital, on Tuesdays and Fridays. Sir Arthur Stanley will take the chair at the first lecture at 5.30 p.m. on Friday, May 3rd. Members of the medical profession, nurses, and infant welfare workers can obtain tickets from the secretary of the hospital.

Dr. CHAUVEAU, representative of the Côte-d'Or, has been elected chairman of the French parliamentary group by thirty-one out of thirty-four votes. In thanking the members for the honour done him, Dr. Chauveau pleaded for a closer union between the group and the medical press and professional associations so that parliament might be kept in touch with the profession.

COLUMBIA UNIVERSITY has received £10,000 from an association of medical women, and contributions from other donors amounting to £3,600, to enable it to begin the erection of buildings in the medical department for the accommodation of women students. The university has lately received a gift of £600 from an anonymous donor for research in war problems, and another of £1,000 from Mr. Clarence Mackay for surgical research work.

A MEETING of medical men, jurists, and philanthropists representing every part of Switzerland has been held to discuss the formation of a Swiss association for the prevention of venereal disease. Professor Bloch, director of the dermatological clinic of the University of Zürich, and Colonel Hauser, head of the medical service of the Swiss army, were appointed to draw up reports on the campaign against syphilis in the civil population and in the army.

Dr. FRANCISCO DOMINGUEZ ROLDAN, who was recently appointed secretary of Public Instruction and the Fine Arts, one of the highest administrative posts in the Republic of Cuba, is a distinguished member of the medical profession. After graduating at the University of Havana he studied for a long time in Paris, devoting himself especially to anatomy. On his return to his native island he was appointed professor in the University of Havana, and won a great reputation and influence as a teacher.

THE London County Council, at its meeting on April 23rd, agreed to the establishment for one year of an experimental centre for remedial exercises as part of the Council's scheme for the medical treatment of school children. The treatment is intended for the more pronounced cases of such deformities as lateral curvature of the spine, and a voluntary committee is to manage the centre, which will be in Hampstead, where selected children from schools in the district will be sent for treatment.

AT a meeting of the National Baby Week Council on April 11th, under the chairmanship of Sir James Boyton, M.P., it was announced by Dr. Eric Pritchard, chairman of the executive committee, that this year the national celebration would be held from July 1st to 7th, but local committees would be free to choose dates to suit their own convenience. Exhibitions of the practical side of infants' welfare work and mothercraft competitions would be held. It was agreed to co-operate with the National League for Health, Maternity, and Child Welfare. The offices of the National Baby Week Council are at 27A, Cavendish Square, London, W.1.

DISTURBANCES of the reactions of the pupils after recent shell shock without external wounds are probably common, but, as vision is not affected, little attention has been called to the subject. From an analysis of twenty-six cases, Guillaumin and Barré (*Ann. de méd.*, 1917, v, 503-513) find that the following changes may occur: Dilatation, without reaction to light or accommodation; inequality, with failure to react to light on one or both sides; inequality only; the Argyll Robertson pupil; and the paradoxical reaction to light. As a rule, these disorders do not last more than three weeks. The explanation of the pupillary abnormalities is difficult; there is no gross damage to the eye, and there is no evidence that they are hysterical. In six of the cases examined the cerebrospinal fluid was yellow as the result of haemorrhage; possibly in these cases there was a toxin which acted on the roots of cranial nerves or on the fibres of the pupil reflex; possibly the shock affected the retina or the ciliary nerves and muscle, causing asthenia; or possibly there was local compression by blood clot, but in most of the cases there was no sign of meningeal haemorrhage.