fibrillation of the ventricles of the heart. The conditions essential for the production of ventricular fibrillation were present-namely, an imperfect degree of chloroform anaesthesia as a predisposing cause, and operative procedure and struggling as exciting causes, one or both of which may be efficient.

There are only two chances of the restoration of the ventricles from fibrillation to a normal beat of which I am aware. One chance is that of spontaneous recovery, which is rare, and the other is through digital manipulation of the ventricles, such as was applied in the case reported. Artificial respiration alone, as generally practised, does

not hold out any prospect of resuscitation.

Cardiac massage should be performed without undue delay in all cases of ventricular fibrillation, once the condition is recognized. Sudden pallor and complete cossation of the pulse followed by a phase of exaggerated respiration or convulsive movements, is a clear indication for cardiac massage, and if immediately preceded by evidence of semi-consciousness, assurance is made doubly sure. Only in cases of overdosage with chloroform, in which some evidence of respiratory failure precedes the heart failure, and in which the latter is gradual and not sudden, is cardiac massage centraindicated, for in such circumstances artificial respiration is sufficient to restore the patient.

The following quotations from what I have already written upon this subject 1 defines the course to be adopted

when ventricular fibrillation is established:

The only remedy so far effective is massage of the ventricles. It is not advisable to attempt this at once, for the heart may recover spontaneously; two minutes' grace is all I would advise.

. . . At the end of two minutes, if there is stil. no indication of cardiac action, open the abdomen, and with the hand compress the ventricles between the diaphragm forcibly and rhythmically. Artificial respiration should be maintained meanwhile, so that the heart may not die from asphyxia, for a measure of circulations is maintained by the cardiac compression.

Cardiac massage of this nature is not a certain remedy. Still better than cure is prevention, and the class of syncope illustrated above may be entirely avoided by the use of effective chloroform anaesthesia. Operations under light chloroform anaesthesia entail a risk of sudden death through ventricular fibrillation, and are therefore, in my opinion, unjustifiable.—I am, etc.,

London, W., Nov. 13th.

A. G. LEVY.

### Obituary.

### ADAM ROBERT TURNBULL, M.B., C.M.EDIN.,

LATE MEDICAL SUPERINTENDENT, FIFE AND KINROSS DISTRICT ASYLUM.

It is with regret that we record the somewhat sudden and unexpected death from cerebral haemorrhage of Dr. Adam Robert Turnbull, on November 17th, at Colinton, near Edinburgh, where he had lived since his retirement from the post of medical superintendent of the Fife and Kinross District Asylum. He was 62 years of age.

Dr. Turnbull was a brilliant student of inedicine at the University of Edinburgh, and took very high places in all his classes. He gained ten medals during his undergraduate career with over 90 per cent. of the available marks in each subject; in midwifery he obtained 98 per cent. He graduated M.B., C.M. in 1875, with first class honours, and was accorded the Ettles Scholarship, the prize given to the most distinguished student of the year. He was also senior president of the Royal Medical Society.

After graduation Dr. Turnbull first became a resident physician in the Royal Infirmary, and then, in 1876, an assistant physician in the Royal Asylum, Morningside, under the late Sir Thomas Clouston. He here acquired a knowledge of asylum administration and the care of the insane, and succeeded Dr. Brown as medical superintendent of the Fife and Kinross Asylum at Springfield in 1881. He occupied this post and discharged its duties to the entire satisfaction of the District Board till February, 1915, when he retired on a pension.

Although possessing great intellectual gifts, Dr. Turnbull was of a retiring and unassuming disposition, and his rich

stock of knowledge was never displayed for show or effect. His friends could, however, always depend upon getting from him thoughtful views on most subjects and sound judgement in difficulties of all kinds. He was a hard worker all his life, as well as an efficient and a most conscientious one. It was characteristic of him that some years ago he should be found during an official visit at his ost carefully discharging his duties when very seriously ill. Since then he has been a semi-invalid, and he bore his afflictions with patience and fortitude.

Dr. Turnbull was a highly valued and respected member and official of the Medico-Psychological Association. Ho was in 1910 chosen President of that Association, but was obliged, owing to the state of his health, to resign the honour before the time came for him to undertake its active duties. He will always be remembered for having initiated the modern method of caring for insane sick male patients by the employment of female nurses entirely. In a new hospital which the District Lunacy Board were building in 1895 Dr. Turnbull designed a special sick room, with easy supervision, for this purpose. The arrangements were on a modest scale, and females were employed by day only, but the success of this departure formed the beginning of a great movement, which, under the fostering care of the Board of Lunacy, spread over Scotland. Since the war began it has been adopted over the whole kingdom, adding to the comfort and well-being of the insane and to the military strength of the empire by liberating male attendants from sick-room duties.

In private life Dr. Turnbull was a most gentle and

amiable man, beloved by all and without an enemy. His consideration, often approaching deference, for the views and feelings of others, was a perpetual lesson in courtesy and self-denial. In his younger days he took a keen interest in cricket, and was himself a capital batsman. Latterly, he was fond of shooting and spent part of the autumn in Northumberland for that purpose. Shortly after going to Fife he married Miss Georgina Hughes, of Middleton Hall, Northumberland, who predeceased him

many years ago.

#### E. E. DOYEN, M.D., PARIS.

Dr. Eugène Louis Doyen, who died in Paris on November 21st, was born at Rheims in 1859, studied at the medical school of that city, and afterwards in Paris, where he graduated in 1885. He had the advantage of starting life with a considerable fortune, and soon left the slow road of official promotion to found a private surgical clinic. He was a bold, rapid, and skiltul operator. He was one of the first to use the cinematograph as a means of demonstration, and at the annual meeting of the British Medical Association in 1898 he exhibited several films showing the manner in which he performed various operations, including that of craniectomy.

He was the author of works on the treatment of cancer, published in 1904 and 1909; an atlas of anatomy and of a treatise of surgical therapy and operative technique, the first part of which appeared in 1907; the work is still incomplete. In 1901 he announced the discovery of an organism producing cancer to which he gave the name Micrococcus neoformans, and in the same year he began to treat malignant disease by injection of toxins and vaccines prepared from its cultures. His first communication on the subject was made to the Académie de Médecine in December, 1901. In 1904 a commission consisting of MM. Berger, Kirmisson, Monod, Nélaton, and Pierre Delbet was appointed, which, after an investigation extending over five months of cases offered by M. Doyen himself as instances of success, reported that it had not seen a single case showing improvement. The report, which was published in the Bulletin et mémoires de la Société de Chirurgie de Paris for July 18th, 1905, ends with the following verdict: "Moreover, it seems to us that M. Doyen has been the victim of the illusions which so easily carry away inventors to confound their hopes with reality, and we unanimously conclude: Nothing that your committee has observed warrants the belief that M. Doyen's treatment has a favourable action on cancer." A later invention of M. Doyen was a pre-paration he called "mycolysin," which he said would prolong life and prevent and cure most infectious diseases.

Although the Ministries of Marine and the Colonies were induced to sanction the inclusion of this chixir among anthorized medicaments, it seems, so far as it has any effect, to do no more than stimulate the resistance of the leucocytes. M. Doyen is another illustration of the vanity of the search for such elixirs. He said at a congress in Geneva some years ago that the preservation of man's life through several centuries depended solely on himself, yet he died at the comparatively early age of 57. M. Doyen's manner of announcing his claims exposed him to much criticism by his professional brethren, and his position for some years before his death was one of open antagonism to his profession. His book Le malade et le médecin, published in 1904, is almost a declared defiance of the accepted rules of medical ethics. A few years ago he delivered a public address on Le Malade Imaginaire. in which he deplored the want of a twentieth century Molière to expose the wrong-doings of the doctors. when this pontiff of professional morality separated the xiphopagous twins Radica and Doodica, he gave a full account of the operation in the Echo de Paris of February 10th, 1902. It is a pity that one so gifted should have condescended to such devices in search of a notoriety which was quite unnecessary for his success.

Dr. A. Fraenkel, for many years director of the medical section of the Urban Hospital, Berlin, died on July 6th. He was born in 1848; he was a nephew of the celebrated physician, Tranbe, and was one of the earliest pupils of von Leyden. His name is known as the discoverer of the pneumococcus of pneumonia, and he made other important contributions to the study of respiratory diseases. He was a founder and for many years president of the Berlin Association for Internal Medicine.

DR. ENRIQUE B. BARNET, who died recently, was one of the founders of the health department of Cuba, and for many years took the chief part in the organization and direction of sanitary work in the island. When the Junta Nacional de Sanidad was formed in 1902 he was placed at its head. That position he held till 1909, when political influences caused his transfer to the office of chief of the library of the Secretariate, in which he rendered valuable service. Later he organized the library and press section, of which he was head at the time of his death.

## The Services.

EXCHANGE.

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# Medical Aelus.

COLONEL W. H. BULL, A.M.S.(T.), K.H.S., F.R.C.S., of Stony Stratford, has been appointed a deputy lieucenant for the county of Buckingham.

AT a meeting of the Section of Surgery of the Royal Society of Medicine, I, Wimpole Street, W., on Wednesday, December 13th, at 5 o'clock, a paper will be read by Miss Frances Ivens, M.S., of the Hôpital Auxiliaire No. 301 at Royaumout, on a clinical study of anaërobic wound infection, with an analysis of 107 cases of gas gangrene.

A SPECIAL sanitary bureau has been established in connexion with the Italian Ministry of War. The new department is a first step towards the realization of the scheme of hygienic reform designed to meet the needs of the army which is being promoted by the Minister, Leonardo Bianchi, in co-operation with General Morrone.

As announced in our advertisement pages, the Walter and Eliza Hall Institute of Research in Pathology and Medicine, established in connexion with the Melbourne Hospital, require the services of a director of medical research in pathology and medicine, at a salary of £800 per annum and a yearly premium of £75 for retirement. The institute is controlled by a board representing the trustees, the University of Melbourne, and the Melbourne Hospital.

THE medical department of the Belgian War Ministry has resolved to begin with the new year the publication of

a periodical—Archives médicales belges—in which reports of the medical work of the exiled Belgian nation will be published. Research laboratories have recently been founded in the principal Belgian hospitals, and both hospitals and laboratories have been greatly sulgaried. hospitals and laboratories have been greatly enlarged, so that it is expected that the material available from these sources will be sufficient to put the new periodical in a leading position. It will also contain abstracts of publications in other countries.

THE foundation stone of a new hospital dedicated to San Juan de Paula was laid in Madrid on June 23rd. The King of Spain was present at the ceremony. The buildings cover an area of 13,000 metres in the Cuatro Caminos, and the hospital, which is intended for working peorle, is equipped in accordance with the most advanced ideas. It owes its foundation to the beneficence of Señora Doña Dolores Romero. Another hospital lately opened in the Spanish capital is that of the Santisima Virgen y San Celedonio, the cost of which has been defrayed out of a fund bequeathed by the Count de Val.

DR. BACRI, a French army surgeon, has reported to the Académie de Médecine the results of the treatment of thirteen cases of tetanus by large and repeated doses of antitetanic serum. Although in eight cases preventive injection nad not been given, all thir een recovered. His practice was to give a subcutaneous injection of 50 to 60 c.cm. in one dose on each day, every day, for six days. The total quantity of serum given varied from 160 c.cm. in a case in which the diagnosis was made very early, to 420 c.cm. Improvement was generally noticed on the third day. The treatment should be commenced as soon as the first symptoms of trismus are noted, and continued even though the symptoms be slight.

An inter-allies dental congress was held recently in Paris to discuss especially the treatment of wounds of the jaw; at the same time a museum of drawings, photographs, and appliances was brought together. At the meeting of the Odontological Section of the Royal Society of Medicine on November 27th Mr. T. A. Coysh gave some account of both, which, unfortunately, owing to circumstances apparently beyond his control, was very incomplete. He praised the French records of cases, especially by colour photographs, reach records of cases, especially by colour photographs, and spoke of American ingenuity in the construction of ap liances, referring especially to Pope's swivelled bar. He mentioned with appreciation Dr. Gilleat's demonstration of restorative plastic work, and described visits to the American ambulance at Value-Grâce, and to the British base hospital at Camiers, where from 1,500 to 1,800 den are are made each month. The president, in his address to the section, in reviewing the changes brought about in the treatment of fractured laws by war experiabout in the treatment of fractured jaws by war experience, noted and commended the disuse of wiring, the saving of bone fragments, and the growing tendency to extract septic teeth. or teeth near the line of fracture.

WE have received from Dr. Ralph G. Mills a review of current Japanese medical literature by the staff of the Research Department, Severance Union Medical College, Seoul, Korea, of which he is director. It is issued as a serial every two months. Among the papers abstracted is one on the development of the supposed last stage in the life-history of Paragonimus, the "fur" crab (Eriocheir Japonicus, De Haan), by K. Nakagawa, of the sinchiku Hospital, Formo a, published in the Journal of the Perfection Medical Society, Alumni Association of Kanazawa Medical School, vol. xxi, January, 1916. It is regarded as the second intermediate host of the lung distoma. In a report to the Japan Pathological Society in April, 1915, Nakagawa, on the basis of a number of experiment- on dogs and cats, concludes that the young parasites are taken into the intestinal tract of man encapsuled in the flesh of crabs, and quickly reach the ileum. They hatch in twenty-four to forty-two hours, and, working their way in o the peritoneal cavity, pass up through the diaphragm into the lung, sometimes directly, in other cases after penetrating the liver. The first intermediate host is a snail of which he found two likely forms- he Melania libertina (Gould), and the Melania obliquegranulosa (smith). Kakami in Chosen I Ho, February 1st, 1916, gives the results of an investigation of the lung distoma (Paragonimus Pestermanni) in South Ham Kyung Province, Korea. He doubts whether crabs or crayfish play any part in t e produc i m of the disease in man, because, althou h the Koreans never eat uncooked crabs, 50 per cent. of the population is affected. On the assumption that the intermediate host is the Melania libertina, raids on the snails were organized by police order. It is estimated that in the last two years 210,000,000 snails had been destroyed in the infected district, and that only a few years would be required to get rid of them altogether.