be went to the local civil hospital, and the bite was counteracted with what appears from his account to have been silver nitrate. Three days later he returned to Secunderabad, felt quite well, and had no local pain.

On the fourth day he had fever, swelling of the forearm, with pain and tenderness around the bite. For the next ten days he was "excessively dull," and attended the medical inspection room for treatment with hot fomentations. There is no record of attacks of fever during this period, but the symptoms did not improve until the inflammation subsided.

On the fifteenth day after the bite he was sent to the Indian Station Hospital for admission. The temperature was then 101°. The right forearm showed general swelling, with a localized brawny infiltration around a shallow ulcer about the size of a silver sixpence. The blood film revealed no marked parasitism or spirochetes. The epiphysial girdle of the right arm was enlarged and tender, but the axillary glands were not affected. No rash or articular lesions were noted. Fever continued for four days, but was never higher than 101°.

On the fifth day after admission the temperature was normal and continued so for three days. Blood was taken for Wassermann test; scraping of ulcer found negative to organisms of streptothrix type.

On the eighth day after admission the temperature again rose to 102°, and the inflammation showed no improvement.

On September 6th, 1911, ten days after admission, or twenty-five days after the bite, 0.6 gram of novarsenobillon was injected intravenously in 10 c.c.m. of sterilized double distilled water. The following morning the temperature was 99°, and in the evening normal; there has been no recurrence.

Four days later all signs of inflammation had completely disappeared, and there was no tenderness. The Wassermann test of blood before the injection of novarsenobillon was strongly positive; twelve days after the injection it was negative.

In the literature at my disposal I have been unable to find any record of a positive Wassermann reaction in association with rat-bite fever, but I am informed that a positive reaction has been recorded for the disease previously.

In my case, as the Wassermann reaction became negative after what was virtually a provocative dose of novarsenobillon, it appears unlikely that the positive result was due to a syphilitic infection; furthermore, the patient had no history, symptoms, or signs of specific disease.

My thanks are due to Lieut. Colonel W. D. A. Keys, C.I.E., I.M.S., for permission to publish the note on this case.

References:

Memoranda: MEDICAL, SURGICAL, OBSTETRICAL.

ARTHRITIS DEFORMANS AS A DEFICIENCY DISEASE.

Osteo-arthritis, or arthritis deformans, has always been the subject of much speculation regarding its true pathology, and at the present moment many different theories are advanced as to the proper method of treating the disease. Its etiology also seems obscured in its origin. While the multiple arthritis frequently associated with some deformity in children can, like acute rheumatism, usually be said to be related to some blood infection, the chronic arthritis occurring chiefly in adults or middle-aged women, less often in young adolescents and men in middle life, does not to my mind seem to come under the category of an infection. There is a tendency to believe that this type of chronic rheumatism and its complications is caused by an increase, usually without any specific curative remedy; all that can be done is to check it from getting worse; but when once developed, although there may be periods of rest in the stage of onset, yet eventually the progressive nature of the malady asserts itself, rendering the sufferer sooner or later a hopeless cripple.

From many years' experience of treatment of these dis-appointing cases, and comparing them with types of diseases caused by a deficient food supply, I have come to the conclusion that the condition is connected with the class of deficiency diseases. Arthritis deformans is frequent in women of the poorer classes, who rarely have a properly selected diet, living, as they say, on coarse bread and vegetables or tea and bread and tea, their husbands being at work and having no control of their meals away; thus these women are depriving the metabolism of those essential salts necessary to a healthy existence, and the mineral salts contained in the bones are dissolved out into the poorly nourished blood and tissues with low mineral content, leaving the bones in the eroded de-}

formated condition so well known in the later stages of the disease; but at the early stage, of course, this erosion is not evident, only the gradual molecular destruction productive of pain in the joint.

One of the chief reasons which has induced me to associate arthritis deformans with deficiency disease is the fact that its occurrence is most often in that class of patient who for years have lived upon an improperly selected diet; granted that it is very improbable that a person can have a proper diet, yet if the food of these cases were analysed over a period of years a deficiency of some kind would be found. Apparently, when the tissues become weakened in this manner, it is impossible to say whether the self-dissolving properties of the food, which, if in the bone itself are less easily retained; but nevertheless the process once started becomes progressive, with the results described.

Another point of some significance bearing upon the above is the water supply. I happened to have a knowledge of two districts, one where the supply was hard water containing a large amount of both temporary and permanent salts; hence a great amount of osteo-arthritis was very little. In the other, where the water supply was soft or no temporary hardness and very little permanent hardness, the cases of osteo-arthritis were much more numerous.

Of course, my experience is very limited, but it would be interesting to know if in other places the difference has been observed. We may, in the last district, quite well conceive that the intake of fluids deficient in salts, and food likewise poor in this respect, the fluids of the body, being low in mineral content, dissolve from the bones the salts necessary for their stability, thus producing the disease of osteal deformans.


RESUSCITATION AFTER APPARENT DEATH.

In view of the case reported in the BRITISH MEDICAL JOURNAL by Mr. G. R. A. Armstrong (January 28th, 1922, p. 141) the following notes may be of interest:

A boy, aged 15 years, was admitted to the Manchester Royal Infirmary suffering from a right-sided pyoempyema. His general condition appeared satisfactory and operation was carried out shortly after his admission.

The patient was anaesthetized with the usual A.C.E. mixture and the operation commenced at 6.20 p.m. Five minutes later, when the peristomus was being separated from the rib, it was found that both respiration and the heart beat had ceased. The posterior was widely dilated and the patient appeared to have all intents and purpose. Artificial respiration was instituted and kept up, but with no result.

At 6.35 p.m. the abdomen was opened through the left rectus muscle and bimanual cardiac massage was carried out; at the same time injection of 1/2 an min. of aether and of 0.2% of novarsenobillon. Artificial respiration was continued meanwhile. At 6.40 p.m., fifteen minutes after it had ceased to beat, the cardiac rhythm restarted with slow strong beats. The messre was discontinued and the heart beat ceased immediately, but restarted when massage was resumed and then became automatic. Voluntary respiration started ten minutes later, the correal reflex returned, and the operation was rapidly completed. About one hour later generalized convulsions appeared at intervals of two minutes, and these increased in frequency until at midnight they came on with every second breath. Nothing appeared to control them; the pulse became more rapid and weaker until 1.30 a.m., when the patient died.

A post-mortem examination on the following day showed that, apart from the cardiac lesions, the brain was unimportant, and there was no bleeding into the pericardium or the puncture track. Microscopic examination of the brain showed no demonstrable lesion in the cell cultures.

We find, therefore, in this case that automatic action of the heart was stopped for fifteen minutes. Animation was suspended for a similar period, but ultimately signs of cerebral irritation supervened, as the result of cerebral anaemia from stagnation of the circulation.

It would appear from the case reported, that highly specialized tissues of the central nervous system could not stand deprivation of the blood supply for a period of fifteen minutes, and irreparable damage was done to these tissues. Cases of this type are fortunately rare, and successes after cardiac massage still more uncommon. Yet with increased knowledge of the method and its earlier adoption we may perhaps look for happier results in the future.
INTRACTABLE VOMITING DUE TO CEREBRAL SYphilis.

A married woman, aged 46, complained of persistent vomiting of frothy matter, which had persisted for many months, unrelated to food in time, quantity, or quality. The retching commenced usually in the early morning and continued until food time at irregular intervals. She also complained of general weakness and flushings, giddiness and fainting attacks.

Such a history naturally suggested a climacteric causation, but examination of the patient revealed several unusual symptoms. She was anaemic and looked ill; the pulse was weak and rapid (pulse rate 120); examination of the abdomen was negative, and her other organs appeared to be normal. The central nervous system was in every respect normal, with the one exception that the knee jerks were slightly increased. There were no sensory or parietic changes, and indeed nothing to suggest a syphilitic causation beyond her pupils. The optic discs appeared to be normal.

On vaginal examination a large fibroid uterus was found, and it was supposed that this might be the cause of some of her symptoms it was removed, total hysterectomy being performed. The only result was apparently to increase her discomfort, so far as the sickness was concerned. The surgeon was again called in for further advice, but his diagnosis was that the sickness was mainly of a functional nature.

A variety of medicinal preparations were subsequently tried, but without success. The suspicion that the condition was due to some cerebral lesion was eventually confirmed by a strongly positive Wassermann reaction given by the cerebro-spinal fluid; the blood gave a negative result. The effective treatment led to an examination of the blood as soon as she came under my observation, but as the blood was reported to be negative for the Wassermann test, the idea of syphilitic causation was unwisely neglected until everything else had been tried without success.

R. HAMER HODGES, M.B.

British Medical Association.

CLINICAL AND SCIENTIFIC PROCEEDINGS.

YORKSHIRE BRANCH: LEEDS DIVISION.

A meeting of the Leeds Division of the British Medical Association was held on January 12th. Before the meeting the members of the Division visited the Armley School Clinic, where they were conducted round by Dr. Algernon Wear, and much interest was shown in the different departments. The meeting was then held at the Medical School, Leeds.

SCHOOL MEDICAL WORK.

Dr. Wear read a paper on "Some aspects of school medical work." He said that school medical inspection dated back some eighty years. The first country to make a start in this direction was France, in 1833 and 1834 respectively, and by 1849 school boards were medically inspected. While the idea was gradually taken up by other countries, England did not really wake up to the meaning of school medical inspection until about 1905; the chief cause which led to the adoption of schemes by this country being the result of a Royal Commission on physical training in Scotland in 1903, which showed that deplorable conditions existed among school children. The School Boards of London and Bradford had taken steps in 1901 and 1903 respectively; and by 1899 medical officers were appointed by seventeen-nine different local authorities. The Education (Administrative Provisions) Act of 1907 made it the duty of all authorities to provide medical inspection, and since that date many other Acts have been passed affecting the school medical service, practically the whole of which had been consolidated into the Education Act of 1921.

School medical inspection in Leeds, continued Dr. Wear, is carried out by 8 full-time and 3 part-time medical officers, 6 dentists, 27 nurses, 24 clerks, and several dental attendants; the dental attendants are employed by the local authority.

In our school medical work the main object is to make the school children cleaner and healthier, and by that means to improve the standard of local public health. The examination is comparatively simple, and occupies about seven minutes, per service, so that 10,000 children in the city and 35,000 children on the roll, and three routine examinations are carried out for every child—on entering school, on leaving school, and every three years of age. An exhibiting mother may bring forward any child for examination, and all children found defective have to be re-examined, usually six weeks after the routine examination. The examination is performed periodically in every district, and subsequent cards. Nurses visit all schools twice a year and examine all children as to cleanliness. Parents present at medical inspection are allotted personal time and subsequently get a stamped card, notice: "Your child has been found to be suffering from so-and-so, and are advised to..."

For administrative purposes the city of Leeds is divided into six districts, each of which contains an approximately equal number of schools and children, together with a clinic. Each district is in charge of a medical officer with a number of nurses, the nurses assisting and carrying out minor treatment. The nurses do not become medical officers, but are trained in personal time and subsequently get a stamped card, notice: "Your child has been found to be suffering from so-and-so, and are advised to..."

The Leeds System.

Dr. L. A. Rowden gave an account of the treatment of ringworm. The X-ray treatment by the single dose method, he said, was first described in this country by Sauvageon, in a paper published in the British Journal of Dermatology in June, 1906. Dr. Rowden treated his first case of ringworm in July, 1906. To be successful the technique had to be precise, and the aim was complete depilation of the hair within three weeks. If the dose was not quite sufficient the hair failed to fall out, and if too great the hair failed to grow again and a permanent alopecia resulted. If the hair failed to fall out, it was not safe to give a second dose till several months had elapsed. The hair was then cut short and a more thorough examination, such as mentally defective, blind, deaf, epileptic, cripples, and tuberculous cases. Here there are various departments—eye, nose, throat, dental, medical, and X-ray treatment for ringworm. At this clinic there were 19,000 attendances yearly, 19,200 were carried out at four clinics, and all extractions are under gas anaesthesia.

The aim of the school medical work is mainly preventative, the practice is to advise in treatment for the school medical practitioner for treatment. The school medical officers want the fullest help and the trust of the general practitioner.

Treatment of Ringworm.

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For after-treatment an ointment of half a drachm each of sulphur and salicylic acid in an ounce each of vaseline and adps lanae was used.

There were two ways of applying radiation to the scalp: (1) By hexagonal-shaped glass and the molybdenum comb method. This was the best method, but tedious, especially useful in single patch cases. Seven or eight cases could be done in a morning’s work of three and a half hours. (2) By a hand treatment, in which the whole scalp was done in five areas. In this method there was difficulty on account of uneven surfaces, of keeping the
REGGERED DENTISTS.

Sir,—I write to say that the regulations of the Dental Board have now been approved by the General Medical Council and the Privy Council, and that applications for registration under the Dentists Acts, 1907, which have been considered, if addressed to "The Registrar of the Dental Board," at this office, on and after January 27th.

My object in writing is to point out that no person should be considered to be registered, but persons possessing a qualification of registration, and that medical practitioners should be careful to satisfy themselves, before they enter into professional relations with any persons pretending to be registered, that such persons have in fact been registered. I am, etc.,

NORMAN C. KING.
Registrar.

An account of the regulations was given in the Supplement last week, p. 19.

PARENTAL RIGHTS AND THE MEDICAL EXAMINATION OF SCHOOL CHILDREN.

A DECISION presenting features of both medical and social interest was given in the King's Bench Division on January 26th. A case was stated by the Hove justices and related to the medical examination of school children under Section 122 of the Education Act, 1902, which provides for the inspection of the clothing and persons of children attending elementary schools, gives power to cleanse children who are found to be infected, and imposes a penalty or fine on parents who allow a child to become verminous a second time.

The appellant was the father of a girl aged 12, who was attending an elementary school at Hove. In April, 1921, the girl, presumably at her father's direction, declined to submit to medical examination. In July, 1921, she again refused to be medically examined, and in September when a further medical examination was attempted she refused to submit. Her intention to offer resistance to medical examination was not proceeded with. The child was reported to the local education authority for persistent non-compliance, but the school continued to send her daughter to the school, but she was refused admission. The attendance officer then took the case to the magistrates who convicted the father, but stated the case for decision by the High Court.

Counsel for appellant argued that this was a method of compulsion which reminded him of the saying, "We shall never have compulsory education. We shall have to become voluntary." The education authority in effect said, "We will not admit your child until she submits to a medical examination; but if you don't submit to the rules we will not admit you. It is better for you and better for the child." He submitted that there was nothing in the Education Acts to make medical examination compulsory. There was no suggestion that the child's health was continuous and non-existent, and the case was not within the ground on which there were certain cases which showed that it was not compulsory to submit themselves in proper order in some cases, but there was no statement in the Acts of the grounds on which children might be excluded. He submitted that this child's conduct was not persistent non-compliance; if the child committed one or two acts of disobedience, the remedy lay in the ordinary methods of discipline. No attempt here had been made to punish the child or make her obey. The proper course, he submitted, was to carry out the examination, using such force as was reasonably necessary.

Counsel for the defendant said that he placed great reliance on the finding of fact that the father declined to allow the child to submit to examination. He did not suggest that if the child's disobedience was in delinquency of her father's wishes, the local education authority could expel her and then summon the father, who sent her to school and in October by a lawful order and the disobedience was invited by the parent. The father knew when he sent his child to the school gates that he was making her subject to her consequences which would make an absolute attendance. It was true that the Act contained no specific penalty for refusing medical examination, but submission to medical examination must be regarded as on a par with any other lawful commands which the school authorities might give. If a father persisted in ordering a child to disobey a particular part of the school's regulations, he could only be excluded from school. This was a reasonable and proper course. A father could not hold up a child's attendance in relation to the regulation sanctioned by Parliament by saying, "I send my child on my own conditions." Mr. Justice Avory, in giving judgement, said that it had been held that the word "intention" is not the same as "opinion" that a child could be sent to a particular school in circumstances in which he knew the child would be refused admittance, had not caused the child to attend school. Nevertheless, he did not think that the child had been excluded on the ground of persistent non-compliance. Counsel had suggested that the remedy was for the school authority to exercise disciplinary power, but his lordship thought that that was putting on the authorities a responsibility never intended. It would lead to scenes of violence and disorder in the school, and probably to summonses in the police court for assault. He thought that Section 122 did impose an obligation on the child to submit to examination. If the child refused under her father's direction, the fault of the non-compliance was his and she was responsible for her non-attendance. He must send her in such a way that she could not escape by removing his own and her objection to submitting to examination. If the option of non-compliance must be dismissed.

Justice Baker agreed. He thought that Section 122 imposed a duty on children to submit, and on their parents to co-operate. Mr. Justice Roche also agreed.

Experience has shown that the medical examination of school children has been of great benefit to the children, and education authorities have been pressing for the law taken to secure that the examinations are conducted with regard for the comfort and susceptibilities of the children. To have adhered that a foolish or faddly parent can be allowed to override the provisions of the law for the benefit of all classes of the community would have been a step tending to nullify the essential principles of the Act.

Universities and Colleges.

UNIVERSITY OF OXFORD.

Tolstoy Memorial Prize, 1922.—The next award of this prize for original research in any subject comprised in the following list—psychology and physiology, and animal and vegetable morphology, and anthropology—will be made in Trinity Term, 1922. The value of the prize is now about £100. Candidates must be not more than 25 years of age and their work must be submitted by their college or their head of department in the University. No candidate may submit more than one essay. The examination committee is composed of the deans of the faculties of arts, science, and medicine, and of the ex-principal of New College. Professor J. F. Rose, F.R.S., is chairman of the committee.

No candidate will be eligible (1) who has not either passed the examinations for the B.A. degree or the B.M. degree at Oxford, or for the B.A. degree or the B.M. degree at Cambridge; (2) who has been admitted as a candidate for the degree of B.Sc. at Oxford, or as an undergraduate for the degree of B.A. at Cambridge; (3) who has exceeded the period of five years from the date of his graduation; (4) who has himself been previously submitted for the award of the prize. The prize is believed to be the greatest offered by any University in this country for research in the University of Oxford, and the work submitted must be of the highest quality. Candidates must forward their essays to the Registrar of the University not later than March 31st, 1922. They must, further, enter the name, person, or by letter, at the University Registry, not later than Monday, April 3rd, and must at the same time produce or send to the Registrar of the University evidence of their capacity for original observation and research. A candidate may also submit to the examiners any original work previously done by him.

A congregation has been held in the University, at which, the degree of Bachelor of Medicine was conferred on G. Cranston.

UNIVERSITY OF LONDON.

At a congregation held on January 27th the following medical degrees were conferred:

M. B. Crn.—R. H. T. Tallerman.
D. Cnr.—H. L. Wletter.

UNIVERSITY OF GLASGOW.

The Balliolahous gold medals have been awarded to the following, all of whom gained honours for the excellence of their theses for the degree of M.D.: D. K. Adams, T. J. Mackie, N. Morris.

ROYAL COLLEGE OF PHYSICIANS OF LONDON.

An ordinary Comitia of the Royal College of Physicians of London was held on February 4th, p.m., the President, Sir Norman Moore, being in the chair. The following were admitted to the membership:


Licences to practise Physic were granted to the following ninety candidates who had passed the required examinations and confirmed by the by-laws and regulations:

SIR JOHN BLAND-SUTTON will deliver an Emeritus lecture at the Middlesex Hospital Medical School on Tuesday, February 7th, at 3 p.m. The subject of the lecture will be "The florid plexuses of the brain and psammomata."

SIR ARCY POWER will deliver a Lecture on "The Production of a Grastic Solution of a Sterile Drainage Solution" before the Royal British Nurses' Association to-day (Saturday, February 4th), at 3 p.m., at 194, Queen's Hall, W. The chair will be taken by Dr. A. J. Bice-Oxley, C.B.E., Mayor of Kensington.

SIR ROBERT JONES has accepted an invitation to become President of the Association of Certified Blind Masseurs, and has its office at 224, Great Portland Street, London, W. 1.

A POST-GRADUATE lecture will be given at the St. James's Hospital, Ouseley Road, Balham, on Tuesday, February 7th, at 4.30 p.m., on the subject of "Some aspects of infant feeding."

CAPTAIN SIR ARTHUR CLARKE, an Elder Brother of the Trinity House, formerly deputy-chairman of the Seamen's Hospital Society, has been elected chairman of that corporation in succession to the late Sir Percival Alleyne Nairne. Captain H. B. Hooper, R.I.M., has been appointed deputy-chairman.

DR. WILLIAM SHAW has been elected chairman of the Lame Urban Council for the year 1922; he has been a member of the council for thirteen years, and twice vice-chairman.

The fifth Silvans Thompson Memorial Lecture will be delivered by Sir Oliver Lodge at the Royal College of Surgeons of England, on Thursday, February 10th, at 1.15 p.m., in the meeting room of the College.

A sessional meeting of the Royal Sanitary Institute to be held at 19, Gower Street, W. 1, on February 14th, a discussion will be opened by Dr. W. M. Willoughby, M.O.H. Port of London, on the administrative measures necessary in regard to the slaughter of animals and the conveyance and treatment of their carcases, a question recently issued by the Ministry of Health. A sessional meeting of the Institute will be held in the Guildhall, Norwich, on February 21st.

A series of eight lectures under the auspices of the People's League of Health will be delivered at the Royal Society of Arts, John Street, Adelphi, on the subject of "The mind and what we ought to know about it." Four lectures will be given in February and four in March, the first lecture being on Monday, February 6th, at 6 p.m., when Dr. Bernard Hart will discuss "Primitive Instinct." Subsequent lecturers will be Dr. R. G. Cole, Dr. R. S. Rows, Sir Maurice Craig, Sir Robert Armstrong Jones, and Sir Frederick Mott.

The late Lord Mount Stephen, who died in November last, has bequeathed £22,000 to the Victoria Hospital, Montreal, which he left in trust to the Montreal Lying-in Hospital, for the purpose of erecting a building. Sir James Reid, M.D. As already announced, the residue of his property, after paying other bequests and annuities, has been bequeathed to the Royal Hospital for Incurables. It is estimated that the residue will amount to about $75,000.

DR. R. J. SMITH, DR. M. F. CAHILL, AND DR. H. DUGUID, all of Gray's Inn, have been called to the Bar.

The executors of the late Mr. Hermann Woolley, for many years treasurer of Manchester University, have given a donation of £1,000 towards the endowment of a lectureship in pharmacetics in the University.

In the week ending January 28th there was a decrease of 153 in the number of deaths in London from influenza, the numbers being 320 as against 473 in the previous week. In the 105 great towns of England and Wales there was a small increase, 1,450 as against 1,433. In the case of the ninety-six great towns the figures were 1,419, as against 1,404 in the week ending January 21st. In several of the great towns, mainly in the north, there were increases. In Birmingham the fall was from influenza, influenza 77 against 42; Bristol 55 against 37; Liverpool 25 against 14; Reading 20 against 11; Southend 8 against 4; Southampton 9 against 6; Cambridge 9 against 4; Norwich 3 against 5; Chester 3 against 1; Wallasey 7 against 5; Wigan 21 against 6; Wellingborough 10 against 7; Walthamstow 10 against 4; South Shields 19 against 10; Gateshead 52 against 42; Cardiff 13 against 7. In Newcastle-on-Tyne there was a decrease of 74 against 109, as was also the case in Glasgow, where the figures were 152 against 225. In the week ending February 1st the figures showed a substantial increase, being 115 as against 72 in the week ending January 28th. It seems probable that this last week accounts for the maximum accessibility of this wave, and that in the present week a decline will be found to have occurred.