water supply, which must, in spite of all care, be derived from the adjacent soil.

Not on the high ground of public health alone must we consider this question, but as not one of us would willingly see a person dear to us reduced to that horrible state of stagnant fetor which is their inevitable fate under the conditions we impose on them, it becomes a sacred duty to reform our present methods.

The practice of cremation at once suggests itself, but I do not propose to deal with it, partly because it has so often been treated by abler hands and partly because I wish to meet the opinions of those who are opposed to cremation on account of religious or other prejudices.

Methods of embalming the dead are becoming increasingly common, and already there are several firms who make a speciality of it, and who charge comparatively moderate fees for the process. For those who can afford it it appears to offer a more decent and reverential means of treating the dead than our present customs, but it must remain largely a luxury of the rich on account of the cost.

The method which I suggest for the prevention of *post-mortem* putrefaction in human bodies is simply that of the injection with formalin, practically the method of the dissecting room. It is cleanly, cheap, and effective, and may be introduced merely by syringing into the aorta by the ordinary injectional method. Sufficient proficieney to do this neatly can be acquired by a little practice, and there need be none of that mutilation which is so abhorrent to the relatives of the deceased.

It is unnecessary to detail the advantages of formalin over any of the disinfectants or antiseptics hitherto used for preserving anatomical preparations. It has been abundantly tested in every medical school in the world. It hardens the tissues, preserves their natural conformation, and does not introduce poison into the system. Hence the drawback of using such substances as arsenic, corrosive sublimate, or carbolic acid, which would interfere with the examination of the body in case of suspected poisoning, is overcome.

It is, of course, arguable that it is much better not to attempt to use a preservative of any kind; that the object of earth burial should be to reduce the body to its primary elements as quickly as possible, and any effort to delay that consummation should be considered objectionable. Such an objection might well prevail if it were the custom to place bodies uncoffined into the earth and allow the ordinary processes of nature to operate, or if they were merely interred in a perishable coffin. But what we have to deal with is the present custom, whereby the remains are placed in a strong wooden coffin which will not perish for many years, whilst a sufficiency of air is enclosed in the coffin to promote the growth of saprophytic organisms, and the oxidizing agency of the earth is prevented from operating for a considerable time. Whilst these conditions prevail, and whilst the considerable amount of prejudice against cremation persists, the problem remains to convert the cadaver, as Sir Henry Thompson said, into ammonia, ashes, and carbonic acid. The rôle of formalin is merely to ensure that this may be done without the production of offensive by-products harmful to the public health by poisoning the water supply, and the purport of this paper is merely to stimulate a discussion as to whether there is any better means of doing this.

MEMORANDA:

MEDICAL, SURGICAL, OBSTETRICAL.

CASE OF ANGIO-NEUROTIC OEDEMA.

MISS X., aged 32, had been under my treatment for about three weeks suffering from colic and pain over the area of the appendix; no swelling or tenderness on pressure, no high temperature or other symptoms of appendicitis could be found. After a week's rest in bed, with milk diet, castor oil, and bismuth mixture with tinct. opii ♏v, all symptoms subsided, and on August 31st I told her she might live her usual country life, gardening, walking, etc. On the same afternoon she went for a two-mile walk, and felt very tired, and the pain came on again. She went to bed early and slept well until 3 a.m. September 1st, when she woke up feeling her lips very swollen, and sent for me (3½ miles). On arrival at 4.30 a.m. I found her in a very nervous hysterical condition, with well-marked oedema of both lips and both eyes. She said she had also had a "tight feeling and choking sensation" in the throat, and was afraid she was going to be suffocated; but this was getting better when I saw her, and I could see no oedema of the larynx and nothing but congested fauces. The pulse was 140, slowing down to 80 in twenty minutes; no murmur was to be heard, but only an accentuated second sound; the urine, specific gravity 1015, was very acid, but contained no albumen or sugar, and there was no deposit. I gave her a mixture containing liq. strych. ♏iv and sp. aetheris co. ℥ss every four hours—four doses. At noon the same day the oedema was diminishing, and at 11 a.m. on September 2nd oedema had practically vanished, and there was no colic.

Her father and mother are both dead; she had only one brother, who is alive and healthy, and there is no hereditary history of the disease to be obtained. She states that she had it once before, two years ago, and put this former attack down to fatigue through overwork as a hospital nurse.

Is this purely a vasomotor change owing to suddenly increased permeability of the serum through the capillaries (and, if so, what is the cause of this change?), or is there a possibility of its being a result of cardiac weakness brought on by fatigue? And what connexion (if any) has it with the preceding attack of colic?

Chillington, S. Devon. L. H. D. HALE.

DIAGNOSIS OF GAS IN THE PERITONEAL CAVITY.

ON July 12th, 1907, I was called at 2 a.m. to a girl, whose general symptoms were compatible with either an acute attack of appendicitis, with the appendix lying alongside the ascending colon, or a perforation of the stomach or duodenum.

The area of liver dullness was not diminished, but on laying the bottom of a match-box over the stomach, scraping it lightly with the finger nail, and auscultating all over the abdomen I heard the conducted sound everywhere almost as plainly as in the stomach area. I sent her to Liverpool by the first train, and she was successfully operated on by Mr. Rushton Parker ten hours after the first symptoms. Mr. Parker, who has kindly given me permission to publish his letter, described the ulcer as "near the cardiac end in front, there was no extravasation of contents, the hole quite minute, and covered with lymph alone."

But for this method of determining the presence of free gas in the abdominal cavity, I should have been in some doubt as to the diagnosis, and valuable time might have been lost.

I am indebted to Dr. Stacey Wilson's paper on alterations in the level of the diaphragm,[1] advising this method of measuring the size of a dilated stomach, for a sign of free gas, which I have not seen described, and which was, to my mind, conclusive evidence of the nature of the accident.

Llandudno. EDWARD GOODDY, F.R.C.S.Eng.

NOTE ON THE RATE OF FORMATION OF VESICAL CALCULI.

PROSTATECTOMY was performed upon an elderly man on January 29th, 1907. The bladder contained no calculus. During the middle week in February the bladder was examined through the suprapubic wound and was quite clear.

He was readmitted into Christchurch Hospital complaining of leakage of urine through the wound in July, 1907. The bladder was reopened by my colleague, Dr. Acland, and two phosphatic calculi were removed. The calculi were of the size of monkey nuts, and weighed 20 and 28 grains respectively. Almost exactly five months had elapsed between the digital examination of the bladder and the removal of the calculi.

CLENNELL FENWICK, M.B.Lond., F.R.C.S.Edin.,
Honorary Surgeon to Christchurch Hospital, New Zealand.

[1] BRITISH MEDICAL JOURNAL, 1907, vol. i, p. 978.

LITERARY NOTES.

MESSRS. ARCHIBALD CONSTABLE AND CO. will publish shortly a book on sewage disposal works by Hugh P. Raikes, A.M.I.C.E., who has had fifteen years' experience in the designing and construction of such work.

Dr. S. D. Clippingdale sends us the following extract from a recent issue of *Notes and Queries*, which seems to show that the Admiralty in the time of Queen Anne were of an economical turn of mind in the matter of surgical dressings. The note is dated September 14th, 1702:

> The Commn. for Sick and Wounded having desired of us that the Chyrurgions Employed by them at the Severall ports may be Supplied with Old Colours for the Use of the Sick and Wounded Seamen as may happen to be Sent on Shore, Wee direct you therefore to give us an acct. what Old Colours are in Store at Woolwich unfitt for any Use in the Navy.
>
> To the Storekeeper and Clerk of the Survey, Woolwich.

The gentleman (Mr. I. Eliot Hodgkin) who has unearthed this letter has the temerity to observe that "weather-worn bunting can hardly have formed ideal material for the use of the chyrurgions." But perhaps the old colours were intended for the decoration of the sick-bay, and not to be torn into bandages?

Messrs. Thacker, Spink and Co., of Calcutta, announce that they will publish shortly a *Manual of Ophthalmic Operations*, by Major F. P. Maynard, M.B., F.R.C.S., Professor of Ophthalmic Surgery in the Calcutta University. The volume will be illustrated by stereoscopic and other photographs of operations.

Considering the large amount of work that has been done recently in the tropics on the diseases of animals, it is fitting that there should be some publication on such an important subject. This want has been recently met by the appearance of the *Journal of Tropical Veterinary Science*, issued quarterly and published in Calcutta. Volume I appeared in 1906, and now the first part of Volume II is to hand. It contains some very interesting papers, written by some good authorities; and if such a standard is maintained, and there is no reason why it should not, the publication will succeed and have a large circulation.

The A. Stubers Verlag (Curl Kabitzsch) of Würzburg has recently published an account of the medical manuscripts in the Royal University Library of Würzburg, with historical and literary annotations by Dr. Ignaz Schwarz. Among these are some fragments of unpublished treatises by Ricardus Anglicus on prognostic signs; glosses on Johannitius or Honien ben Ishak, an Arabian physician of the ninth century, who wrote a commentary on the *Ars Parva* of Galen; critical notes on the treatise *De Pulsibus* of Philaretus, a writer whose date cannot be more approximately fixed than the period A.D. 600 to 900; and notes on the aphorisms of Hippocrates, on Aegidius's treatise on the urine, on the works of Ysaac (Abu Jakub Ishak ben Soleiman), a Jewish physician of the tenth century. Of the life of Ricardus Anglicus little is known. According to Sprengel his family name was Wendmere or Wendover; he was born at Oxford, was physician to Pope Gregory IX between 1227 and 1241, was afterwards granted the revenues of a canonical stall in St. Paul's, London, and died in Paris in 1252. A facsimile of a passage of his commentary on Johannitius is given. In an appendix are published the Latin text of Copho's Anatomy (eleventh century), and that of the Anatomy of Richard of Salerno (twelfth century). Dr. Schwarz's work is of considerable value from an historical point of view, and bears evidence on every page of the learning and research of the author.

MEDICAL NEWS.

THE personal estate of the late Sir William Gairdner, K.C.B., has been proved of the value of £11,255 13s. 1d.

DR. J. E. O'SULLIVAN has been added to the Commission of the Peace for Liverpool by the Chancellor of the Duchy of Lancaster.

THE late Mr. Edwin Boxall, of Brighton, who died on July 30th, left 50 guineas each to the Sussex County Hospital, the Children's Hospital, Brighton, and the Ear and Throat Dispensary, Brighton.

ARRANGEMENTS for an exhibition of foods, drugs, chemists' sundries, and the like, are again being made by the *British and Colonial Druggist*. It is to be held in the Royal Horticultural Hall, Vincent Square, during the second week in October.

As will be seen from the advertisement pages, the annual medical service of the Guild of St. Luke will be held at St. Paul's Cathedral on October 22nd at 7.30 p.m. Those members of the profession who propose to attend are requested to communicate their intention without delay to the Registrar, Mr. Claude St. Aubyn-Farrer, 7, Westbourne Park Road, London, W.

A COURSE of lectures on hygiene in its bearing on school life has been arranged by the Royal Sanitary Institute, and will be held at the Parkes Museum, Margaret Street, Regent Street, commencing on Monday, September 30th, and continuing until Friday, November 1st. In addition to the lectures there will be demonstrations. Full particulars can be obtained from the Secretary of the Royal Sanitary Institute, Margaret Street, London, W.

WE learn from Mr. Reginald Harrison and Mr. John Pardoe that a representative Committee of the French Association of Urology, consisting of Professors Guyon, Achard, Albarran, Carlier, Chauffard, and Pousson, with M. Desnos, Paris, as Secretary, proposes the formation of an International Society of Urology upon the same lines as the International Society of Surgery. It is suggested that the first Congress shall be held in the autumn of 1908 in Paris. With this object a preliminary meeting, at which various eastern and western nations will be represented, will be held at the Necker Hospital in Paris on October 8th next, for the purpose of making necessary arrangements. Further information can, we understand, be obtained from Mr. J. Pardoe, F.R.C.S., 77, Wimpole Street, London, W.

THE Colonial Office Report for the Northern Territories of the Gold Coast shows that the health of the European residents in 1906 had been less good than in previous years, a great deal of sickness having prevailed during the latter part of the year. From the medical returns for the six districts it appears that of a total strength of 232 units there was a total average sick of 100. Yeji and Kintampo were the two worst stations, an average of half of the strength in the former and two-thirds of the latter being on the sick-list. In March and April of last year a serious epidemic of cerebro-spinal meningitis, or some closely-allied disease, broke out in the Lobi-Dagarti country, and great numbers of natives succumbed to it. It ceased with the rains, but returned this spring with increased virulence, and the Chief Commissioner reports that thousands were dying of it. The disease is being specially investigated by three of the medical staff.

THE GRANULES IN LEUCOCYTES.—In a paper recently read before the Royal Society, Mr. C. E. Walker, Assistant Director of the Cancer Research Laboratories in the University of Liverpool, states that in the bone marrow, where leucocytes containing granules are often extremely numerous, a section of suitably prepared material will show that the granules in a large proportion of these cells are arranged in a more or less definite manner. The granules are usually oval in shape and lie in sequence close to each other, so that a line drawn through their long axes would appear as a thread coiled up irregularly in the cytoplasm of the cell. In some cells the granules are continuous, whilst in others they are discrete and appear to be joined by a thick thread; in other cells, again, there are no granules but only a thick thread coiled up around the nucleus. Intermediate conditions are also observable. The author suggests that the thread, to which he calls particular attention, arises in the archoplasm. During the whole of its existence the thread stains very deeply, and always with a preference for basic rather than acid stains, the best dyes for demonstrating it being saffranin and basic fuchsin. When it has entirely broken up, the granules formed from it still stain in the same manner, but when they begin to lose their regular arrangement they seem at the same time to lose their affinity for the basic stain. In some of the granular cells, when the staining reaction changes from basic to acid, it is suggested that this alteration may be hastened or retarded by influences external to the cell whilst it is still in the body. It has also been ascertained that when cells removed from the body are heated and dried the proportion of acid to basic staining granules is increased. The main conclusion derived from these researches, which have been chiefly devoted to material obtained from the guinea-pig and the rat, is as follows: "The presence of varying proportions of cells containing the so-called acidophile and basophile granules in different diseases is just what one would expect, and is no argument against a common origin of both from the thread here described as occurring in some of the cells in the bone marrow."