

presented by the well-known Arnold family; for "the father of Dr. Arnold, of Rugby, Dr. Arnold himself, and now two of his sons have all succumbed to chronic heart disease."³³

As regards the second group of cases, which are of a still more exceptional character, it may be observed that structural peculiarities and diseases of distinctively male organs, and which consequently females would be altogether unable to develop, have been transmitted by them in the latent condition to some of their male offspring, in whom they have reappeared. It has, for example, been observed that hydrocele, phimosis, hypospadias, and other morbid affections of distinctively male structures, can be transmitted through the female line of descent to male offspring, through the influence either of direct or of indirect atavism. Sir Henry Holland³⁴ has, for example, recorded a case of hydrocele which came under his own observation, and in which the males of three out of four generations in one family were affected; the omission depending on a female being the third in the series, and in whose son the complaint reappeared. In like manner phimosis has been not infrequently transmitted by women to some of their male offspring, as occurred in a case recorded by Dr. J. W. Ogle,³⁵ in which operations for its relief had been performed on a father and his son, and on the son of a second and also of a third brother of the father. The three brothers in this case had two sisters, one of whom transmitted it to two sons, and the other sister to one son. And Mr. Prescott Hewett³⁶ has mentioned that he has often had occasion to operate for this malformation (phimosis) in a family in which it "existed in the father and several of his sons and their children, as also in several sons of some of the married sisters;" but he has added that "the defect was worse in the sons of the brothers than of the daughters." As regards hypospadias, which has been and is often met with as an hereditary defect, Meckel³⁷ has recorded a case in which a woman, born of a family which presented many examples of hypospadias, gave birth to two boys affected with this congenital malformation. Heuremann³⁸ has in like manner recorded the case of a family in which the females had for several generations given birth to males who were all affected with hypospadias.

The following example of the heredity of this condition has been lately published by Dr. E. Lesser,³⁹ in which a hypospadian transmitted the defect through a daughter to four hypospadiac grandsons; and through a son, who was unaffected, to another group of four hypospadiac grandsons. Whilst a sister of their hypospadiac grandfather transmitted the defect through her son, who was unaffected, to three hypospadiac grandsons, who must have derived their inheritance from a still more remote source. Another and a more remarkable illustration of the transmission of this defect, through the female line of descent, has been observed and recorded by Mr. Lingard,⁴⁰ in which a hypospadian, whose father and paternal grandfather were similarly malformed, married and had three hypospadiac sons, from whom descended, in the direct male line, seven hypospadiac grandsons and two hypospadiac great-grandsons, and one great-grandson not malformed. The widow of the man from whom these three generations of hypospadians were descended married again, after an interval of eighteen months; and in this instance the second husband was not only free from the defect, but there was no history of it in his family. By this second marriage she had four hypospadiac sons and four hypospadiac grandsons; whilst there were seven grandsons and three great-grandsons who were not malformed. Mr. Lingard informs us that "it has been impossible to trace the history through the females of these six generations; but," he adds, "it may fairly be presumed that one or more of them transmitted the hereditary peculiarity to some of their male offspring." The case, however, is chiefly interesting as an

illustration of the curious and important influence of a previous marriage on the succeeding offspring, through the agency of what has been termed "indirect atavism," and to which special attention was directed in one of my previous papers on heredity in July, 1863. It may, moreover, help to overcome some of the objections which have been urged against the influence of a previous marriage on the subsequent offspring by a second, or even by a third husband; for with reference to this subject it has lately been suggested by Dr. Douglas Lithgow⁴¹ that "although facts are forthcoming as to such an influence affecting the lower and even the higher animals, yet so far as man is concerned the instances of this are very few, if they occur at all."

From these and from other cases which have been or which may be cited, it is evident that although there is a very great and sometimes even a preponderating influence of the male sex on development, yet as regards health as well as disease, transmission is more commonly and more readily effected through the female rather than the male line of descent, and this preference for the one sex rather than the other has been popularly recognised from a comparatively early date, as is well shown by the following use of the term "mother wit" in Spenser's satirical fable entitled *Mother Hubbard's Tale of the Ape and Fox*, which was published somewhat more than three centuries ago (1591):

But the false Fox most kindly plaid his part;
For whatsoever mother-wit or arte
Could worke, he put in prooffe.

MEMORANDA: MEDICAL, SURGICAL, OBSTETRICAL, THERAPEUTICAL, PATHOLOGICAL, Etc.

EXTREME CIRRHOSIS OF LIVER IN A BOY.

J. D., born in August, 1881, first suffered from troublesome diarrhoea at Christmas, 1893, followed by jaundice in March, 1894, by great ascites, hæmatemesis and melæna in May, 1895, and death in February, 1896. During the sixteen months prior to his death he suffered constantly from diarrhoea and jaundice; the skin and conjunctivæ being always obviously yellow, though varying in degree from time to time; the urine usually loaded with urates and bile pigment; and the motions varying in colour between pale drab and putty, though sometimes white, and occasionally natural. He frequently suffered also from slight gastric catarrh. On three or four different occasions he had marked ascites, so that his girth was increased by 3 inches and more; fluctuation was quite distinct, and the navel protruded to the size of a grape, all of which symptoms nearly or quite disappeared each time after a few weeks' rest in bed. The gums were usually swollen and inclined to bleed; and on one occasion (nine months before death) there was hæmatemesis to the extent of over a quart, with melæna to a less alarming degree, and at about the same time both anasarca of and petechial hæmorrhages on the lower limbs. There was no albuminuria, no heart or lung trouble, and no pruritus throughout. These symptoms, with marked reduction of liver dulness and retraction of the liver out of reach, left little room for doubt about the diagnosis. No medicinal treatment had any perceptible effect, the chief administrations being full doses of corrosive sublimate, with and without full doses of iodide of potassium, extending over some months, and a variety of tonics. The hygienic conditions were throughout quite satisfactory, and the diet nutritious and non-stimulating.

At the necropsy, made a few hours after death, two or three pints of bile-stained ascitic fluid were found; the liver was not more than one-third of its natural size, profusely hobnailed, the hobnails being mostly pea-sized, a few bean-sized; the left lobe was very small; the gall bladder small, collapsed, and empty; the liver was very tough, and on section seemed mostly made up of yellowish pea-sized islands of fibrous-looking tissue. The spleen was nearly twice its natural size, soft and pulpy. The peritoneum was healthy, and through it the cæcum and colon were seen to be much inflamed, while the small intestine remained apparently healthy. The kidneys seemed normal.

⁴¹ *Heredity: a Study, with Special Reference to Disease*, 1889, p. 28.

³³ BRITISH MEDICAL JOURNAL, April 21st, 1888, p. 867.

³⁴ *Op. cit.*, p. 31.

³⁵ On Hereditary Transmission of Structural Peculiarities, *Brit. and For. Med. Chir. Review*, vol. xlix, 1872, p. 510, note.

³⁶ *Ibid.*

³⁷ *Handbuch der pathologischen Anatomie*, tom. i, p. 20.

³⁸ Cited by Sir J. Y. Simpson, *Cyclop. Anat. and Phys.*, Art. Hermaphrodite, p. 375.

³⁹ On Hereditary Hypospadias, *London Medical Record*, vol. ii, 1889, p. 519; from *Virchow's Archiv*, Band cxvi, Heft 3, S. 537.

⁴⁰ The Hereditary Transmission of Hypospadias and its Transmission by Indirect Atavism, *Lancet*, April 19th, 1884, p. 703.

No cause could be discovered for the cirrhosis. There is no suspicion of syphilis in the family. The boy has never tasted alcohol in any form; the father has been an unusually steady man most of his life, though "fond of a glass of rum" for a year or two before the boy's birth, and "never had any illness." The mother had general dropsy after childbirth five years ago, but otherwise has been healthy. The father's father, formerly a publican, is still hale and hearty at 83 years of age.

W. RUSHTON PARKER, M.A., M.D. Cantab.,
Honorary Surgeon, Kendal Hospital.

SNUFFLES IN ACQUIRED SYPHILIS.

THE phenomenon known as snuffles in syphilis is, I believe, generally looked upon as peculiar to babies; and it is no doubt true that the rhinitis, which is probably not uncommon in the early secondary stage of acquired syphilis, in most cases passes unnoticed, or only gives rise to symptoms similar to and often mistaken for those of an ordinary catarrh. As anything like the snuffles of inherited syphilis is, as far as I know, quite exceptional in older patients who have acquired the disease, the following instance may perhaps be thought worth recording.

The case was that of a youth of 16, who came under my care in April, 1894, for syphilis in the early secondary stage. He had numerous mucous patches in the throat and mouth, and he also snuffled in breathing like a syphilitic child in whom the symptom is unusually well marked. As showing the pronounced character of the snuffling, I may mention that the patient's father brought him to me in a state of alarm, thinking his son might be about to lose his nose. The nasal discharge was profuse, sometimes mucous, sometimes purulent, and occasionally bloody, but without offensive odour, and it was remarked that the snuffling could not be wholly removed, even temporarily, by blowing the nose. The boy had rather a small nose, and the nasal passages were somewhat narrower than usual. Anterior examination showed general congestion of the nasal mucous membrane with slight swelling but no mucous patches or ulcers could be seen, and there were no scabs; no posterior examination was made. The catarrh and snuffling lasted in varying degree for more than three months, fluctuating apparently according to the state of the throat, where mucous patches continued to come and go for about the same length of time. Both snuffling and catarrh finally disappeared altogether as the throat became healthy under the administration of mercury and local cauterisation. The only local treatment prescribed for the nose was syringing with a saline solution, which greatly relieved the discomfort in breathing.

Old Burlington Street, W.

ARTHUR COOPER.

IRREDUCIBLE HERNIA TREATED WITH SALINE SOLUTION.

PRIVATE S., 2nd Battalion East Kent Regiment, was admitted into the Station Hospital, Waterford, on October 27th, 1895, with an oblique inguinal hernia on the right side. The rupture was produced by an accident on duty on June 6th, 1895, and he was supplied with a truss on June 14th.

When he came under my observation he was not wearing a truss, and he confessed that he had not worn one for ten days previously. The hernia formed an elongated swelling, dull on percussion, in the groin, filling up the inguinal canal. It was exceedingly tense, and appeared to be constricted at the internal ring. There was no tumefaction of the skin or subcutaneous tissue, and no vomiting, but the man complained of pain in the groin. He said the bowels had acted regularly. He was put to bed and I attempted taxis, the right thigh being meanwhile well flexed and adducted. The attempt was quite ineffectual. I then made an assiduous effort at reduction with the patient in the warm bath; but this was also unavailing. He was given a simple enema and replaced in bed. Next day he was troubled with flatulence, and I prescribed the following draught: R Tr. zingiber. ℥xx, ol. cajeput. ℥x, spt. chloroformi ℥xxx, tr. cardam. co. ℥j.

On October 29th the tumour in the groin was in the same condition as on admission; he was no longer troubled with flatulence and the bowels had acted. I again tried taxis in the warm bath, again with no result. On October 30th I

prescribed the following mixture: Magnes. sulph. ℥j, aq. menth. pip. ad ℥viij; ℥ij twice daily. This was continued until November 5th, on which date the hernia, having previously become softer and smaller, had completely left the inguinal canal. No attempt at taxis had been made since October 29th, and I trusted to the saline mixture to do the work, which it very effectually did. I feel sure that if the man had not been steadfastly treated with the solution of magnesium sulphate he would have remained the subject of an irreducible hernia. The treatment is, I believe, not original, but I am not aware that it is often used, and I think the recital of this case may be useful in showing the value of very simple treatment in a case of irreducible hernia.

Waterford.

J. R. FORREST,
Surgeon-Captain A.M.S., M.O. Station Hospital.

DETACHED RETINA.

I HAVE read with much interest Mr. Ray's paper on the treatment of Detached Retina, and the subsequent discussion upon it, which took place at the recent meeting of the Ophthalmological Society of the United Kingdom, and published in the BRITISH MEDICAL JOURNAL of November 23rd, 1895.

I am gratified to discover, from this discussion, that professional opinion is coming round in favour of operative interference in this lesion. It is certainly an advance upon former reports on the same subject; for, in the *Medical Times and Gazette* of October 25th, 1884, Mr. Nettleship stated that he had operated in about a dozen cases, in only one of which he had succeeded in obtaining improvement, and that but of a temporary kind, namely, for two months.

It will, I think, therefore be interesting to your readers to learn that the gentleman on whom I operated on November 30th, 1893, as reported in the JOURNAL of April, 1894, has progressed satisfactorily up to the present time. After emerging from a state of total darkness, so that he could not see the flame of a lamp before him in any direction, he has been able to perform his work (that of a bank manager) regularly and well.

I do not doubt that, with proper attention to the technique, the operation will take the principal place in the treatment of this affection.

Melbourne.

J. R. WOLFE.

REPORTS

ON

MEDICAL & SURGICAL PRACTICE IN THE HOSPITALS
AND ASYLUMS OF GREAT BRITAIN, IRELAND,
AND THE COLONIES.

MANCHESTER ROYAL INFIRMARY.

A CASE OF DOUBLE CASTRATION FOR PROSTATIC RETENTION
URINE.

(Under the care of Mr. SOUTHAM.)

THE patient, a man, aged 66 years, was admitted on September 14th, 1895, with the following history: He had been troubled with difficulty in micturition for a considerable period, and had passed no urine except by catheter for more than two years. At first he had used a gum elastic catheter, but during the last few weeks its introduction into the bladder had become impossible, and he had been drawing off the water with a No. 6 silver instrument, the passage of which had latterly become very painful and difficult, being generally followed by bleeding.

When admitted the urine was very offensive, alkaline in reaction, containing a quantity of ropy mucus, pus, and blood. The bladder was in an extremely irritable condition, the catheter having to be passed at frequent intervals by day as well as by night. On examination by the rectum the prostate was felt to be somewhat hypertrophied; upon catheterism a marked obstruction was encountered at the neck of the bladder, the chief enlargement being apparently intravesical.

For a fortnight after admission the urine was drawn off regularly four times a day, and night and morning the bladder was thoroughly washed out with boric lotion. Salol

A., in declining to accede to C.'s request, consistently and honourably fulfilled his ethical obligations to B. (2) That professional etiquette, subject to the legitimate claims of others, in no way, *de facto*, interferes with the indisputable right of a patient (*vide Code*, ch. 1, sect. 2, rule 9) to change his medical adviser. (3) In view of the contingency referred to, it would be only natural that B. should feel more or less aggrieved; nevertheless, distasteful though it be, we would suggest to A. that under the touching circumstances, and in view of the fact that there is no other resident or near practitioner to whom C. can appeal, it would rightly and reasonably devolve upon him (A.) to assent to C.'s solicitation to attend his family, prior to doing which it would be judicious, with the view to mitigate B.'s annoyance at an incident common to professional life,—personally to impart to him the facts of A.'s interview with C.

MEDICAL CHARGES.

A. D. complains of exception being taken to his charges by a well-to-do tradesman, who has three branch establishments. The charges were at the rate of 3s. 6d. per visit, and the patient objected that he had never paid more than 2s. 6d., and usually 2s. In answer our correspondent declined to reduce his fees, and pointed out that he had lately attended him through a critical illness, and that the fees in question were no more than those paid cheerfully by his neighbours.

. There can be no doubt harm is frequently done to the interests of the profession by practitioners, who in their desire to ingratiate themselves with the patient, charge fees much lower than his position would warrant, and our correspondent is to be commended for the course he has taken.

MEDICO-PARLIAMENTARY.

HOUSE OF COMMONS.

Rabies.—Mr. WOLFF (Belfast) asked the President of the Local Government Board whether, in consideration of the large increase of rabies in the United Kingdom, he would make such regulations that all dogs be registered, and have a number attached to their collar corresponding with the number on the register, so that their owners could be ascertained, and the police be instructed to take up and destroy any dogs found at large without such number.—Mr. W. LONG, in reply, said that legislation would be required to give effect to the suggestion of his hon. friend, and he was informed that the experience of other countries had shown that the measure, while causing considerable inconvenience and expense, was not likely in itself to bring about the extinction of rabies. There could, however, be no doubt of the importance of the adoption of efficient measures for the seizure of stray dogs, and the prevention of the spread of the disease would be greatly assisted by the efficient performance of their duties in this respect by local authorities and the police.

Plumbers' Registration Bill.—Among the private Bills shortly to be introduced in the House of Commons this session is the Plumbers' Registration Bill, which is backed by Mr. Lees Knowles, Earl Compton, Mr. Dixon, Dr. Farquharson, and Mr. Sexton, and has the support of some of the principal municipalities of the United Kingdom. For several years a system of examination and registration of plumbers has been established in the principal towns of Great Britain and Ireland with a view to raising the efficiency of the plumbing trade; and this Bill proposes to place the system on a broader and more permanent basis. The examinations will be conducted under a representative general council, which will also have the power to promote technical education in the trade.

Commission on Aged Poor.—Mr. A. J. BALFOUR, in reply to Mr. CHANNING, said the Government would appoint a small committee of experts to examine into the best means of making provision for the aged poor, and the appointment would be made without any delay.

Private Members' Bills.—Among the Bills introduced by private members of the House of Commons are a Bill to establish a single franchise at all elections, and thereby to abolish University representation and to remove the disabilities of women, introduced by Sir Charles Dilke, and a Bill to provide for the registration of midwives, introduced by Mr. Skewes-Cox.

The Danger of the Lamp.—Mr. BOULNOIS asked the Secretary of State for Home Affairs whether his attention had been called to the large increase in the number of deaths resulting from accidents caused by the use of dangerous lamps for mineral oils, largely made in Germany, and whether he would consider the advisability of reappointing the Select Committee of 1894, with the view to prevent the sale of such lamps.—Mr. JESSE COLLINGS said the Secretary of State hoped to be able to secure the reappointment of the Committee this session.

The Vaccination Commission.—Mr. CHAPLIN, in reply to Colonel LONG said that, in reply to inquiries, he was informed that the Royal Commission on Vaccination were actively engaged in the consideration of their report, and hoped to be able to present it before long.

Private Lunatic Asylums.—Mr. CORBET asked the Secretary of State for the Home Department if, in view of the recent case in which a sane lady was shut up in a private lunatic asylum, he would take any measures for the abolition of the system of proprietary asylums kept for profit and the substitution of self-supporting State or chartered asylums instead.—Sir M. W. RIDLEY said that he had communicated with the Lord Chancellor on the subject, and understood that the Lord Chancellor had a Bill in preparation which, among other things, aimed at improving and extending the precautions against any abuse of the lunacy laws.—In reply to a further question by Mr. CORBET, Sir M. W. RIDLEY said that the hon. gentleman no doubt knew that the last Act precluded the future establishment of any private asylum.

UNIVERSITIES AND COLLEGES.

UNIVERSITY OF CAMBRIDGE.

THE third examination for Medical and Surgical Degrees (Easter Term, 1896), Part I, will commence on Tuesday, April 28th, at 9 A.M. That for Part II will commence on the same day at 2 P.M.

DEGREES FOR WOMEN.—The Council of the Senate, having received a number of memorials in favour of admitting women to degrees in the University, propose to submit to the Senate a grace to the following effect: "That a Syndicate be appointed to consider what further rights or privileges, if any, should be granted to women students by the University, and whether women should be made admissible to degrees in the University; and, if so, to what degrees, on what conditions, and with what restrictions, if any; that the Syndicate have power to consult with such bodies and persons as they may think fit; and that they report to the Senate before the end of the Michaelmas Term, 1896." Probably a vote will be taken on the question whether it is desirable that such a Syndicate should be appointed at all. The Council express no opinion, and their report will have to be publicly discussed in the Arts School before the grace is offered. A meeting, summoned in the name of several influential members of the Senate, will be held on Saturday, February 22nd, to consider how "recognition" can be granted to women without the risk of making Cambridge a "mixed" university.

THE NAPLES ZOOLOGICAL STATION.—The Special Board for Biology recommend that the agreement between Dr. Dohrn and the University be renewed for a fifth period of five years. By this agreement in consideration of a grant of £100 a year from the Worts Travelling Bachelors' Fund, a table is set apart for the use of university students in the Naples station. During the last five years eight distinguished students have resided at the station and carried out zoological researches of value. It is pointed out that facilities are now afforded at Naples for the study of physiological and bacteriological problems.

DEGREES.—At the Congregation on February 13th the following degrees in Medicine and Surgery were conferred:

M.D.—G. R. Murray, M.A., M.B., Trinity College (Thesis: The Secretory Functions of the Thyroid Gland); R. Freer, M.A., M.B., B.C., Caius College (Thesis: Clinical Notes on the Blood Pressure).

M.B.—J. A. K. Renshaw, B.A., Trinity College; E. A. Peters, B.A., Caius College; J. M. Woolley, Christ's College.

B.C.—J. A. K. Renshaw, B.A., Trinity College; A. Walker, B.A., Pembroke College; E. A. Peters, B.A., Caius College.

UNIVERSITY OF LONDON.

INTERMEDIATE EXAMINATION IN MEDICINE: PASS LIST.

Entire Examination.—Second Division: K. B. Alexander, Guy's Hospital; W. M. Anderson, London Hospital; R. Balderston, Guy's Hospital; H. T. Barron, Westminster Hospital; S. H. Belfrage, University College; J. C. Briscoe, King's College; P. J. Cammidge, St. Bartholomew's Hospital; H. Clifford, University College; E. H. Collens, Mason College; H. L. Eason, Guy's Hospital; H. A. T. Fairbank, Charing Cross Hospital; Lucinda C. Emily Forster, London School of Medicine for Women; J. A. Glover, Guy's Hospital; C. E. M. Kelly, Owens College and St. Bartholomew's Hospital; C. V. Knight, St. Bartholomew's Hospital; C. L. Lander, B.Sc., London Hospital; F. C. Lewis, St. Mary's Hospital; Ethilda Budgett M. Meakin, London School of Medicine for Women; R. Norman, London Hospital; J. A. Perdrau, University College; C. J. Utley, Owens College; J. V. Watson, Owens College.

Excluding Physiology.—First Division: E. A. Gates, St. Thomas's Hospital. Second Division: H. C. Barlow, Westminster Hospital; S. O. Bingham, St. Thomas's Hospital; H. H. Cheesman, Westminster Hospital; H. D. Everington, St. Bartholomew's Hospital; H. E. C. Fox, Guy's Hospital; T. H. Fox, Yorkshire College; H. B. Gibbins, St. Bartholomew's Hospital; Helen Beatrice Hanson, London School of Medicine for Women; R. Hatfield, St. Bartholomew's Hospital; E. C. B. Ibotson, Guy's Hospital; W. H. S. Liddell, St. Mary's Hospital; J. A. N. Longley, Mason College; G. C. Owles, Guy's Hospital; E. E. Parrett, B.A., Guy's Hospital; A. C. Parsons, St. Thomas's Hospital; J. H. Rhodes, St. Bartholomew's Hospital; G. M. O. Richards, Owens College; J. E. Robinson, St. Bartholomew's Hospital; P. W. Rowland, St. Bartholomew's Hospital; J. G. C. Taunton, Mason College; G. P. Taylor, St. Bartholomew's Hospital; I. Taylor, Yorkshire College; G. V. Miller, University College.

Physiology Only.—First Division: H. T. S. Aveline, Bristol Medical School; J. G. Wallis, London Hospital. Second Division: F. V. O. Beit, St. Bartholomew's Hospital; G. B. Crisp, St. Mary's Hospital; H. A. Günther, University College; L. E. C. Handson, Guy's Hospital; J. L. Jones, University College; P. Northcote, St. Thomas's Hospital; W. T. Rowe, St. Bartholomew's Hospital; H. H. Scott, St. Thomas's Hospital; W. S. V. Stock, University College, Bristol; W. L. Stuart, Guy's Hospital; G. B. Thwaites, St. Thomas's Hospital; E. W. Woodbridge, St. Bartholomew's Hospital.

UNIVERSITY OF DUBLIN.

At the Spring Commencements, Hilary Term, held on Shrove Tuesday, February 18th, in the Theatre of Trinity College, the undermentioned degrees in Medicine, Surgery, and Midwifery were conferred by the University Caput in the presence of the Senate:

Baccalaureus in Medicinâ.—A. A. Grosvenor.

Baccalaureus in Chirurgiâ, in Arte Obstetricâ.—J. H. L. Beaman, A. E. Boyd, H. L. Geoghegan, L. J. C. Hearn, B. O'Brien, S. de C. O'Grady, G. A. Pringle, W. Shackleton.

Magister in Chirurgiâ.—B. R. Chatterton.

Doctores in Medicinâ.—J. Beatty, F. N. Blood, A. E. Cooper, J. S. Owens,

Doctor in Medicinâ (in Absentiâ).—W. S. O. Byrne.

ROYAL COLLEGE OF PHYSICIANS OF IRELAND.

At a stated meeting of the President and Fellows, held on Friday, February 13th, William Richard Dawson, M.D. Univ. Dubl., was duly admitted a Licentiate in Medicine of the College.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

THE following gentlemen having passed the necessary examinations and having conformed to the by-laws and regulations, and having been admitted Members of the College, are now entitled to practise Medicine, Surgery, and Midwifery:

Alexander, H., L.R.C.P.Lond.
Allport, W., L.R.C.P.Lond.
Aspland, W. H. G., L.R.C.P.Lond.
Atkinson, F. H., L.R.C.P.Lond.
Auden, G. A., L.R.C.P.Lond.
Bailey, H., L.R.C.P.Lond.
Bell, H. T. S., L.R.C.P.Lond.
Bennett, R. A., L.R.C.P.Lond.
Bensted, L., L.R.C.P.Lond.
Bird, J. W., L.R.C.P.Lond.
Biss, H. E. J., L.R.C.P.Lond.
Blaber, P. L., L.R.C.P.Lond.
Boyd, G. S. J., L.R.C.P.Lond.
Braine-Hartnell, J. C. R., L.R.C.P.Lond.
Brodbird, E., L.R.C.P.Lond.
Bumstead, H. J., L.R.C.P.Lond.
Burrow, A. G., L.R.C.P.Lond.
Butler, A. G., L.R.C.P.Lond.
Caesar, R. T., L.R.C.P.Lond.
Cavenagh-Mainwaring, W. R., L.R.C.P.Lond.
Cayley, F. P., L.R.C.P.Lond.
Center, W. R., L.R.C.P.Lond.
Challis, O., L.R.C.P.Lond.
Chapman, A. V., L.R.C.P.Lond.
Chatterton, A. V., L.R.C.P.Lond.
Chopping, A., L.R.C.P.Lond.
Chute, W. H., L.R.C.P.Lond.
Clarke, H. W., L.R.C.P.Lond.
Codrington, W. J., L.R.C.P.Lond.
Cohen, J., L.R.C.P.Lond.
Coleman, M. W., L.R.C.P.Lond.
Connor, G. W., L.R.C.P.Lond.
Cross, W. F., L.R.C.P.Lond.
Crutchley, E. J. T., L.R.C.P.Lond.
Culmer, J. J., L.R.C.P.Lond.
Daly, N., L.R.C.P.Lond.
Dartnell, L. E., L.R.C.P.Lond.
de Gébert, L. J. A., L.R.C.P.Lond.
Dibbs, W. S., L.R.C.P.Lond.
Dickins, S. J. O., L.R.C.P.Lond.
Dingle, H., L.R.C.P.Lond.
Delman, A. J., L.R.C.P.Lond.
Druitt, A. E., L.R.C.P.Lond.
Durrant, C. E., L.R.C.P.Lond.
Evans, J., L.R.C.P.Lond.
Farrant, C., L.R.C.P.Lond.
Ferguson, J. H., L.R.C.P.Lond.
Fisher, J. C., L.R.C.P.Lond.
Fisher, R. D., L.R.C.P.Lond.
Flavelle, J. M., L.R.C.P.Lond.
Fort, H. R. T., L.R.C.P.Lond.
Fowler, J. G., L.R.C.P.Lond.
Garman, C. B., L.R.C.P.Lond.
Gayer, R. C., L.R.C.P.Lond.
Gervis, F. H., L.R.C.P.Lond.
Graham, S. G., L.R.C.P.Lond.
Green, H., L.R.C.P.Lond.
Gregory, T., L.R.C.P.Lond.
Griffin, A. E., L.R.C.P.Lond.
Gwynne, W. P., L.R.C.P.Lond.
Hadow, G. E., L.R.C.P.Lond.
Haigh, H., L.R.C.P.Lond.
Harcourt, J. C., L.R.C.P.Lond.
Harvey, H., L.R.C.P.Lond.
Heath, A., L.R.C.P.Lond.
Herring, E. K., L.R.C.P.Lond.
Hichens, P. S., L.R.C.P.Lond.
Hilliard, H., L.R.C.P.Lond.
Hobday, J., L.R.C.P.Lond.
Hopkins, W. K., L.R.C.P.Lond.
Howell, J., L.R.C.P.Lond.
Hunter, C. H., L.R.C.P.Lond.
Hussey, J., L.R.C.P.Lond.
Hyde, H. F., L.R.C.P.Lond.
Izard, H. E., L.R.C.P.Lond.
Jackson, T. L., L.R.C.P.Lond.
Jameson, R. W., L.R.C.P.Lond.
Jones, F. P., L.R.C.P.Lond.
Jones, P. T., L.R.C.P.Lond.
Jones, S. L., L.R.C.P.Lond.
Jones, W. M., L.R.C.P.Lond.
Kempster, C. R., L.R.C.P.Lond.
Langford, F. C., L.R.C.P.Lond.
Larbaestier, W. R., L.R.C.P.Lond.
Lawrence, H. G., L.R.C.P.Lond.
Lewis, G. W., L.R.C.P.Lond.
Lowsley, M. M., L.R.C.P.Lond.
Lulham, E. P. H., L.R.C.P.Lond.
McDougal, E. D., L.R.C.P.Lond.
MacLennan, D. N., L.R.C.P.Lond.
Manning, R. B., L.R.C.P.Lond.
Marriott, C. E., L.R.C.P.Lond.
Maskell, J. W., L.R.C.P.Lond.
Mason, G. B., L.R.C.P.Lond.
Mathison, A. J., L.R.C.P.Lond.
Matthews, S. R. R., L.R.C.P.Lond.
Maxwell, J. P., L.R.C.P.Lond.
May, H. J., L.R.C.P.Lond.
Maynard, E., L.R.C.P.Lond.
Miles, W. N., L.R.C.P.Lond.
Milsome, H. B., L.R.C.P.Lond.
Moffatt, A. A. P., L.R.C.P.Lond.
Montgomery, E. C., L.R.C.P.Lond.
Moon, R. O., L.R.C.P.Lond.
Mornement, R. H., L.R.C.P.Lond.
Nicholson, T. M., L.R.C.P.Lond.
Old, J. E. S., L.R.C.P.Lond.
Padwick, J. C., L.R.C.P.Lond.
Parfitt, J. B., L.R.C.P.Lond.
Parker, R. D., L.R.C.P.Lond.
Partridge, L. S., L.R.C.P.Lond.
Paterson, W. H. J., L.R.C.P.Lond.
Phillips, J. R. P., L.R.C.P.Lond.
Pigg, T. S., L.R.C.P.Lond.
Pike, N. H., L.R.C.P.Lond.
Poole, T. B., L.R.C.P.Lond.
Pope, W. H., L.R.C.P.Lond.
Potter, B. E., L.R.C.P.Lond.
Querney, T. M., L.R.C.P.Lond.
Reed, J. C. G., L.R.C.P.Lond.
Riddett, A. J., L.R.C.P.Lond.
Rothwell, T. A., L.R.C.P.Lond.
Rowland, F. S., L.R.C.P.Lond.
Rowland, F. W., L.R.C.P.Lond.
Sanders, A., L.R.C.P.Lond.
Schaub, J. M., L.R.C.P.Lond.
Skey, A. R. H., L.R.C.P.Lond.
Smith, A. G. L., L.R.C.P.Lond.
Smith, J., L.R.C.P.Lond.
Spon, H. J., L.R.C.P.Lond.
Stammers, G. E. F., L.R.C.P.Lond.
Stares, C. L. B., L.R.C.P.Lond.
Stevenson, T. H. C., L.R.C.P.Lond.
Stockdale, E. M., L.R.C.P.Lond.
Strange, R. G., L.R.C.P.Lond.
Takayasu, M., L.R.C.P.Lond.
Tebbs, L. V., L.R.C.P.Lond.
Thomas, J., L.R.C.P.Lond.
Thomas, T., L.R.C.P.Lond.
Thurnell, H. L., L.R.C.P.Lond.
Tidcombe, F. S., L.R.C.P.Lond.
Tod, H. F., L.R.C.P.Lond.
Verdon, E. S., L.R.C.P.Lond.
Waldrone, F. T., L.R.C.P.Lond.
Watkins, B. V., L.R.C.P.Lond.
Watson, C. E. S., L.R.C.P.Lond.
Watson, W. D., L.R.C.P.Lond.
Wheeler, M., L.R.C.P.Lond.
White, H., L.R.C.P.Lond.
Wicks, S., L.R.C.P.Lond.
Wilks, W., L.R.C.P.Lond.
Williams, J. S., L.R.C.P.Lond.
Williamson, O. K., L.R.C.P.Lond.
Wilmer, C. H., L.R.C.P.Lond.
Woolley, T. E., L.R.C.P.Lond.
Wright, A. B., L.R.C.P.Lond.
Wykes, W. H., L.R.C.P.Lond.

The following gentlemen, having passed the necessary examinations and having previously received the approval of the Royal College of Physicians, have been admitted Diplomates in Public Health of the Royal Colleges of Physicians and Surgeons, and are now entitled to register:

F. P. Bartlett, M.R.C.S.Eng. & L.R.C.P.Lond., of St. George's Hospital;
G. A. Bachelor, M.D., C.M.Aberd. & M.R.C.S.Eng. of London and University College Hospitals; C. S. Bond, L.R.C.P.Lond. & M.R.C.S.Eng. of Cambridge University and Guy's Hospital; R. W. Branthwaite, L.R.C.P.Lond. & M.R.C.S.Eng., of Charing Cross Hospital; A. E. Cope, M.D. Durh. & M.B.Lond., of Durham University and King's College Hospital; W. J. C. Keats, L.R.C.P.Lond. & M.R.C.S.Eng., of St. Bartholomew's and King's College Hospitals; C. P. Oliver, M.D. Lond., M.R.C.S.Eng., L.R.C.P.Lond., & L.S.A.Lond., of Charing Cross Hospital and University College Hospital; G. H. Patterson, L.R.C.P.Lond. & M.R.C.S.Eng., of St. Bartholomew's Hospital; F. A. Speat, M.R.C.S.Eng. & L.S.A.Lond., of St. Bartholomew's Hospital; J. A. Thompson, L.R.C.P. & S.I., of London Hospital.

PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

HEALTH OF ENGLISH TOWNS.

IN thirty-three of the largest English towns, including London, 6,393 births and 4,029 deaths were registered during the week ending Saturday, February 15th. The annual rate of mortality in these towns, which had been 18.4 and 20.5 per 1,000 in the two preceding weeks, declined again to 19.3 last week. The rates in the several towns ranged from 12.8 in Croydon, 13.0 in Huddersfield, and 13.3 in Derby, to 23.4 in Liverpool, 24.2 in Manchester, and 26.4 in Norwich. In the thirty-two provincial towns the mean death-rate was 18.7 per 1,000, and was 1.6 below the rate recorded in London, which was 20.3 per 1,000. The zymotic death-rate in the thirty-three towns averaged 2.5 per 1,000; in London the rate was equal to 2.9 per 1,000, while it averaged 2.2 in the thirty-two provincial towns, and was highest in Birmingham, Norwich, and Leicester. Measles caused a death-rate of 1.5 in Burnley, 2.9 in Norwich, and 3.1 in Leicester; whooping-cough of 1.0 in Liverpool, 1.3 in Leeds, and 1.5 in Salford; and "fever" of 1.0 in Derby. The mortality from scarlet fever showed no marked excess in any of the large towns. The 83 deaths from diphtheria in the thirty-three towns included 45 in London, 5 in Birmingham, 5 in Leeds, 3 in Manchester, and 3 in Bradford. No fatal case of small-pox was registered, either in London or in any other of the thirty-three towns. The number of small-pox cases under treatment in the Metropolitan Asylums Hospitals and in the Highgate Small-pox Hospital, which had been 70, 74, and 64 at the end of the three preceding weeks, had further declined to 60 on Saturday last, February 15th; 12 new cases were admitted during the week, against 14, 12, and 6 in the three preceding weeks. There were 2,944 scarlet fever patients in the Metropolitan Asylums Hospitals and in the London Fever Hospital at the end of the week, against 2,916, 2,879, and 2,883 on the three preceding Saturdays; 303 new cases were admitted during the week, against 290, 273, and 285 in the three preceding weeks.

HEALTH OF SCOTCH TOWNS.

DURING the week ending Saturday last, February 15th, 841 births and 557 deaths were registered in eight of the principal Scotch towns. The annual rate of mortality in these towns, which had declined from 20.1 to 18.8 per 1,000 in the three preceding weeks, rose again to 19.1 last week, and was 0.2 per 1,000 above the mean rate during the same period in the thirty-three large English towns. Among these Scotch towns the death-rates ranged from 11.9 in Leith to 24.4 in Greenock. The zymotic death-rate in these towns averaged 2.3 per 1,000, the highest rates being recorded in Aberdeen and Greenock. The 271 deaths registered in Glasgow included 18 from whooping-cough, 3 from diphtheria, and 2 from scarlet fever. Two fatal cases of diphtheria were recorded in Dundee, and 3 of scarlet fever in Aberdeen.

SHEFFIELD CITY COUNCIL AND THE MEDICAL OFFICER OF HEALTH.

It will be noted with surprise that a proposal of the Health Committee that an increase of salary should be granted to the Medical Officer of Health should be rejected by the Sheffield City Council, especially when the excellent services which Dr. Harvey Littlejohn has rendered to the city are remembered. Some of the reasons advanced by the enlightened city councillors for not accepting the proposal of the Committee were not of a character calculated to raise that body in the eyes of those interested in sanitary matters. To argue that an able officer needed no increased remuneration because he was still a bachelor was sufficiently ridiculous, but for a worthy councillor to assert that because a scavenger was paid only £1 a week there was no reason why the Medical Officer of Health should receive £15 a week, casts more discredit on the speaker than anyone else, and we are glad to see that some of those present were alive to this, and at once resented such a statement. Dr. Littlejohn appears to have secured the confidence of his Committee by the indefatigable discharge of his duties as undoubtedly he possesses that of the profession. We would urge upon the Sheffield authorities that if they are to retain the services of a really competent official such as Dr. Littlejohn, they must bring the salary attached to the office more into harmony with that of other places. It is a fact worthy of their consideration that while Sheffield pays its medical officer only £500, and has now refused an increase, other towns which the city council would think were of less importance, and are certainly much less in size, show a more enlightened appreciation of the benefits of good sanitary work by paying larger salaries. We commend this view to the authorities, and we hope that they will yet recognise adequately the valuable services their medical officer has for some years rendered to the city. We note with pleasure the strong line the local press are taking in the matter.

ENGLISH URBAN MORTALITY IN 1895.

IN the accompanying table will be found summarised the vital statistics of 1895 relating to the thirty-three large English towns dealt with by the Registrar-General in his weekly returns.

The 330,896 births registered during 1895 in these thirty-three large towns were equal to an annual rate of 31.3 per 1,000 of their aggregate population, estimated at rather more than ten and a-half millions of persons. This rate showed an increase of 0.6 per 1,000 upon that recorded in 1894, but was below the mean rate in the ten preceding years 1885-94. In London the birth-rate last year was equal to 30.5 per 1,000, while it averaged 31.9 in the thirty-two provincial towns, among which it ranged from 21.7 in Huddersfield, 23.4 in Halifax, 25.3 in Croydon, and 25.6 in Brighton to 35.1 in Sunderland, 35.4 in Wolverhampton, 35.9 in Salford, and 36.9 in Liverpool.

The 218,165 deaths registered last year in the thirty-three towns were equal to a rate of 20.7 per 1,000; although this rate exceeded by 2.6 per 1,000 the exceptionally low rate recorded in 1894, it was slightly below the

MEDICAL NEWS.

DR. M. ARMAND RUFFER has resigned the post of Director of the British Institute of Preventive Medicine, and has been appointed Professor of Bacteriology at the Medical School of Cairo, *vice* Dr. Kaufmann, resigned.

THE Duchess of Albany will on Wednesday afternoon next reopen the wards of the Shadwell Children's Hospital, which have been closed for some time to permit a renewal of a part of the drainage, and of certain structural alterations in the wards and renovation of the sanitary arrangements.

MEDICAL MAGISTRATE.—The Lord Chancellor, on the recommendation of Lord Massereene and Ferrard, has been pleased to appoint Surgeon F. Saunderson Morrison, F.R.C.S., Dundalk, to the Commission of the Peace for County Louth, Ireland.

THE Countess of Radnor has undertaken to give a concert at St. James's Hall, Piccadilly, in June next, with her ladies' string band and chorus, to inaugurate the formation of the Ladies' Auxiliary of the Earlswood Asylum for Idiots, by whom a special appeal is now being made for £5,000, to be devoted towards the opening of the 60 closed beds in the asylum. The concert will be under the immediate patronage of the Princess of Wales.

CREMATION IN AMERICA.—Up to September, 1895, the number of bodies incinerated at the Fresh Pond, New York Crematory was 1,566. As regards the nationality of the deceased persons, the following particulars are of some interest. Germany was the native country of 820, and the United States of 518; then England comes next with 49; Switzerland with 33; Austria with 31; France with 25; Ireland with 15; Hungary with 13; Italy with 9; Denmark with 8; Scotland with 7; Cuba with 6; Holland with 6; Sweden and Norway with 5; Belgium with 4; India with 4; Russia with 4; Australia with 2; Canada with 2; West Indies with 1; Asia Minor with 1; on Mediterranean with 1; South Sea Islands with 1. The nationality of one person was unknown. They are further classified: men, 1,012; women, 411; boys, 82; girls, 61. Thus males greatly preponderate, and more than half the number are of German nationality. There are now 26 cremation societies in the United States. The oldest of these was organised at Washington, Pennsylvania, in 1876, and the two youngest were established at New Haven, Connecticut, and Elizabeth, New Jersey, respectively in 1894. The membership of these societies is about 8,000, but the total number of adherents of cremation in the States is estimated at 100,000.

HUNTERIAN SOCIETY OF LONDON.—The 77th anniversary dinner was held at the First Avenue Hotel, Holborn, on February 14th. The President, Mr. Charters J. Symonds, occupied the chair, and among the guests were Sir J. Lister, Bart., Professor Clifford Allbutt, Dr. Pavy, Dr. F. T. Roberts, Dr. S. Mackenzie, Dr. Sims Woodhead, Dr. F. Semon, Mr. G. Eastes, and others. After the toast of "The Queen," for whom the President expressed the Society's sympathy in Her Majesty's recent great bereavement, he gave "The Hunterian Society," referring to its present flourishing condition. Dr. S. Mackenzie suitably replied. Dr. Pye-Smith proposed "The Visitors" in eloquent terms. Mr. Fraser, Librarian of the London Institution, replied. Sir Joseph Lister, in proposing "The Sister Societies," dwelt on the wonderful multiplication of medical societies which was characteristic of the present day, the earliest having been started only at the end of the 18th century. They were all assisting in the wonderful strides achieved by medical science in these recent days. Dr. F. T. Roberts, responding, said that the societies assisted in the progress of the profession, in the good of humanity, and the relief of suffering. Dr. Hingston Fox proposed "The Society's Lecturers." Dr. Clifford Allbutt responded. He remarked that Hunter, like many of the leaders of English thought, had achieved his success without anything like academic training. He was a pioneer who threw himself with brute force into his work. Now, in addition to the pioneering spirit, there must be a long academic training beforehand. Dr. A. T. Davies proposed "The President," which was given with musical honours. Mr. Symonds spoke of the regret with which he should shortly leave the

Presidentship, having held the post for the past two years. He thanked Mr. Openshaw and Dr. F. J. Smith, the honorary secretaries; and proposed the toast of "The Senior Secretary," which was very cordially received. Mr. Openshaw having replied, the company separated.

MEDICAL VACANCIES.

The following vacancies are announced:

- BELGRAVE HOSPITAL FOR CHILDREN, 79, Gloucester Street, S.W.—House-Surgeon. Board, lodging, light, and fuel found. Applications to the Secretary by February 29th.
- BIRKENHEAD UNION.—Resident Assistant Medical Officer of Workhouse and Schools. Candidates must be registered under the Medical Act. Salary, £60 per annum for the workhouse and £20 for the schools, with rations, attendance, washing, and residence. Applications and testimonials endorsed "Assistant Medical Officer," to John Carter, Clerk to the Guardians, Clerk's Offices, 45, Hamilton Square, Birkenhead.
- BIRMINGHAM PROVIDENT DISPENSARY (Sands Cox Trust, Hockley Branch).—Medical Officer. Minimum salary, £250 per annum, with residence and gas. Applications to the Secretary, A. Derrington, 20, Weston Road, Handsworth, Birmingham, by March 2nd.
- BOLTON INFIRMARY AND DISPENSARY.—Senior and Junior House-Surgeons. Must have a registered medical and surgical qualification. Salary for the senior, £120; for the Junior, £30 per annum, with apartments, board, and attendance. Applications and testimonials to Peter Kevan, Honorary Secretary, 12, Acresfield, Bolton, by March 3rd.
- BUCKINGHAM GENERAL INFIRMARY, Aylesbury.—Surgeon and Apothecary; doubly qualified. Salary, £80 for the first year, increasing £10 annually to £100, with board and lodging, washing, coals, and candles in furnished apartments. Applications to Mr. George Fell, Solicitor, Aylesbury, by February 24th.
- CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST, Victoria Park, E.—House-Physician. Appointment for six months. Salary at the rate of £30 per annum, with board and residence. Applications to the Secretary by March 12th.
- CUMBERLAND INFIRMARY, Carlisle.—Assistant House-Surgeon. Appointment for one year. Salary, £40 per annum, with board, lodging, and washing. Applications to the Secretary by February 25th.
- DENTAL HOSPITAL OF LONDON, Leicester Square.—Assistant Dental Surgeon. Applications to J. Francis Pink, Secretary, by March 6th.
- EAST LONDON HOSPITAL FOR CHILDREN, Glamis Road, Shadwell, E.—House-Physician; must be duly qualified. Board, lodging, etc., provided, but no salary. Applications to Thomas Hayes, Secretary, by February 29th.
- EAST SUFFOLK AND IPSWICH HOSPITAL, Thoro'fare, Ipswich.—Second House-Surgeon; unmarried and doubly qualified. Applications to the Secretary by February 25th.
- GREAT NORTHERN CENTRAL HOSPITAL, Holloway, N.—House-Physician. Salary, £60 per annum with board, lodging, and laundry in the hospital. Also Obstetric Physician to out-patients; must be M.D. or M.B. Applications to Lewis H. Glenton Kerr, Secretary by February 25th.
- GRIMSBY AND DISTRICT HOSPITAL, 39, Cleethorpes Road, Grimsby.—Locum Tenens for House-Surgeon. Applications to Edward Dunn, Assistant Secretary.
- HAVESTOCK HILL AND MALDEN ROAD PROVIDENT DISPENSARY, 132, Malden Road, N.W.—Medical Officer. Applications to the Honorary Secretary, Mr. G. G. Browne, by March 2nd.
- HOSPITAL FOR WOMEN, Soho Square.—Assistant House-Physician (non-resident). Appointment for three months. Candidates must be fully qualified. Applications and testimonials to David Cannon, Secretary, before March 3rd.
- KENT AND CANTERBURY HOSPITAL, Canterbury.—Dental Surgeon. Applications to the Secretary by February 28th.
- LONDON HOSPITAL, Whitechapel, E.—Two Surgeon Dentists. Applications to the House Governor by February 28th.
- OWENS COLLEGE, Manchester.—Junior Demonstratorship in Physiology and Histology. Salary, £100 per annum. Applications to the Registrar by March 2nd.
- MANCHESTER ROYAL INFIRMARY.—Clinical Assistant for the Barnes Convalescent Hospital, Cheadle. Appointment for six months. No salary, but board and lodging provided. Applications to the Chairman of the Medical Board, Royal Infirmary, Manchester, by February 29th.
- METROPOLITAN HOSPITAL, Kingsland Road, N.E.—House-Physician, House-Surgeon, Assistant House-Physician and Assistant House-Surgeon. Appointments tenable for six months. Salary for the House-Physician and House-Surgeon at the rate of £40 per annum, the Assistant House-Physician and Assistant House-Surgeon at the rate of £20 per annum. Must be registered, and possess English medical and surgical qualifications. Applications and testimonials to C. H. Byers, Secretary, by March 7th.
- NEW HOSPITAL FOR WOMEN, 144, Euston Road, N.W.—Female Clinical Assistant. Appointment for one year. Also Lady Dispenser. Applications to the Secretary by February 26th.
- NORTHUMBERLAND COUNTY LUNATIC ASYLUM, Morpeth.—Assistant Medical Officer; unmarried. Salary, £120 per annum, increasing £10 yearly to £150, with furnished apartments, board, and lodging. Applications and testimonials, endorsed "Medical," to Dr. McDowell, at the Asylum, by March 12th.
- PARISH COUNCIL OF KINCARDINE.—Medical Officer (Resident) under the Poor Law. Salary, £42 10s. per annum as Medical Officer and £5

per annum as Vaccinator. Applications to Mr. G. G. Macleod, Chairman of the Council, Ardgay, N.B., by February 28th.

RIPON DISPENSARY AND COTTAGE HOSPITAL.—Resident House-Surgeon and Dispenser; duly qualified; unmarried. Salary, £70 per annum with board and lodging. Applications and testimonials to F. D. Wise, Honorary Secretary.

ROYAL FREE HOSPITAL, Gray's Inn Road, W.C.—Resident Medical Officer (House-Physician); doubly qualified. Appointment for six months, but eligible for re-election. No salary, but board, residence, and washing provided by the hospital. Applications to the Secretary by February 29th.

ROYAL HOSPITAL FOR CHILDREN AND WOMEN, Waterloo Bridge Road, S.E.—Resident Medical Officer for one year. Salary, £70 per annum, with board. Applications to the Secretary by February 24th.

ST. PETER'S HOSPITAL, Henrietta Street, Covent Garden, W.C.—House-Surgeon. Appointment for six months, but eligible for re-election. Salary at the rate of £100 per annum, with board, lodging, and washing. Applications to Irwin H. Beattie, Secretary, by March 2nd.

SHEFFIELD ROYAL HOSPITAL.—House-Surgeon; unmarried. Salary, 100 guineas per annum, with board (exclusive of wine and beer) and lodging. Appointment for two years. Applications to Dr. Sinclair White, Secretary to the Honorary Medical Staff, by February 29th.

SHEFFIELD UNION.—Resident Assistant Medical Officer for the Workhouse, Fir Vale, Pitsmoor. Salary, £100 per annum, with apartments, rations, and other usual allowances. Single or widower. Applications to Joseph Spencer, Clerk to the Guardians, Union Offices, Sheffield, by February 26th.

UNIVERSITY COLLEGE, London.—Professorship of Pathology. Applications to the Secretary, J. M. Horsburg, M.A., by February 29th.

VICTORIA HOSPITAL, Folkestone.—House-Surgeon. Salary, £80 per annum, rising £10 annually to £100, with board, residence, and washing. Applications to the Secretary by March 20th.

WARRINGTON INFIRMARY AND DISPENSARY.—Junior Resident House-Surgeon; unmarried. Salary, £100 per annum, with furnished residence and board. Applications and testimonials to J. L. Tunstall, Honorary Secretary, before February 27th.

MEDICAL APPOINTMENTS.

ALLEN, W. T. D., M.B., B.Ch., B.A.O. Royal University, Ireland, appointed Assistant Medical Officer at the Parish Infirmary, Brownlow Hill, Liverpool.

BAINES, E. W. P., M.B., B.S. Durham, appointed for 1896 to the post of Registrar at the Hospital for Women, Soho Square.

BAWDEN, J. B., M.D. Edin., appointed Medical Officer for the Roche and St. Dennis (No. 2) District of the St. Austell Union.

BENNETT, Charles J., M.R.C.S. Eng., reappointed Medical Officer of Health to the Fairfield Urban District Council.

BODY, H. M., M.R.C.S. Eng., L.S.A., reappointed Medical Officer for the Sandford District of the Crediton Union.

BYERS, Professor, M.D., reappointed Examiner in Obstetric Medicine in the Royal University of Ireland.

CHEATLE, Arthur H., F.R.C.S., appointed Surgeon to the Royal Ear Hospital, Soho.

COLMAN, W. S., M.D. Lond., M.R.C.P., appointed Assistant Physician to the National Hospital for the Paralyzed and Epileptic, Queen Square, Bloomsbury, *vice* Dr. J. R. Bradford, F.R.S., resigned.

CORBET, David., M.R.C.S. Eng., L.S.A., reappointed Medical Officer of Health to the Kidderminster Town Council.

COUCH, Mr., appointed Medical Officer for the Breage District of the Helston Union.

FARRAR, Reginald, M.D. Oxon., M.R.C.S., L.R.C.P. Lond., appointed Surgeon to the Stamford, Rutland, and General Infirmary, *vice* W. Newman, M.D., resigned.

FENWICK, Charles, L.R.C.P., L.R.C.S. Edin., appointed Medical Officer for the Cheriton Fitzpaine District of the Crediton Union.

GRIFFIN, A. E., M.A. Cantab., M.R.C.S. Eng., L.R.C.P. Lond., appointed House-Surgeon to the Middlesex Hospital.

HALL, Arthur W., L.R.C.P., F.R.C.S. Ed., Surgeon to s.s. *Umlazi*, Coolie Immigration Department, Natal Government.

HALL, Henry John, L.R.C.P. Lond., M.R.C.S., reappointed Medical Officer of Health to the Mayfield Rural District Council.

HEAVEN, John C., L.R.C.P. Lond., M.R.C.S. Eng., D.P.H., reappointed Medical Officer of Health to the Keynsham Rural District Council.

HODGSON, C. E., L.R.C.P., L.R.C.S. I., appointed Resident Clinical Assistant, to the City Asylum, Birmingham, *vice* G. Hunt.

LOGAN, Dr., reappointed Medical Officer of Health to the Hartshorne and Measham Rural District Council.

NEWMAN, William, M.D., M.R.C.P. Lond., F.R.C.S. Eng., appointed Consulting Surgeon to the Stamford, Rutland, and General Infirmary.

PHILLIPS, George, M.R.C.S. Eng., L.R.C.P. Lond., appointed Junior House-Surgeon to the Bury Dispensary Hospital.

POWNE, L., M.R.C.S. Eng., L.S.A., appointed Deputy Medical Officer for the Cheriton Fitzpaine District of the Crediton Union.

RACKHAM, A. R., L.R.C.P. Edin., M.R.C.S. Eng., appointed Medical Officer to the Mitford and Launditch Union Workhouse.

REMFREY, Leonard, M.A. Camb., M.D., M.R.C.P., formerly Obstetric Physician to Out-patients, appointed Obstetric Physician to In-patients at the Great Northern Central Hospital.

SAVILLE, H. W. B., M.R.C.S. Eng., L.R.C.P. Edin., reappointed Medical Officer and Public Vaccinator for the Radcliffe District of the Bury Union.

TUCKER, Joseph, M.R.C.S. Eng., L.S.A., appointed Medical Officer for the Chawleigh District of the Crediton Union.

WARD, Francis, M.B., C.M. Edin., appointed Senior House-Surgeon to the East Suffolk and Ipswich Hospital.

DIARY FOR NEXT WEEK.

MONDAY.

LONDON POST-GRADUATE COURSE, Royal London Ophthalmic Hospital, Moorfields, 1 P.M.—Mr. E. Treacher Collins: Injuries of the Eye. London Throat Hospital, Great Portland Street, W., 8 P.M.—Mr. George Stoker: Chronic Glandular Diseases of the Nose and Pharynx.

ROYAL COLLEGE OF SURGEONS OF ENGLAND, 5 P.M.—Professor Leonard E. Hill: On Cerebral Pressure and the Cerebral Circulation. Lecture I.

MEDICAL SOCIETY OF LONDON, 8.30 P.M.—Dr. C. H. Ralfe: On the Causation and Treatment of Obscure Renal Pain. Mr. Hurry Fenwick: On Exploration of the Kidney in Cases of Incontrollable Renal Pain. Mr. Sydney Rowland: Demonstration of the New Shadow Photography by Roentgen's x Rays.

TUESDAY.

LONDON POST-GRADUATE COURSE, Bethlem Royal Hospital, 2 P.M.—Dr. Craig: Delusional Insanity, Paranoia. Parkes Museum, Margaret Street, W., 4.30 P.M.—Professor A. Wynter Blyth: Lecture IV. Sources of Water.

THE CLINICAL MUSEUM, 211, Great Portland Street.—Open at 2 P.M., Lecture at 4.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY, 20, Hanover Square, W., 8.30 P.M.—Adjourned discussion on the Parasite of Malaria.

WEDNESDAY.

LONDON POST-GRADUATE COURSE, Hospital for Diseases of the Skin, Blackfriars, 4.30 P.M.—Dr. Payne: Lichen Planus and Allied Diseases. Royal London Ophthalmic Hospital, Moorfields, 8 P.M.—Mr. E. Treacher Collins: Vision Testing.

ROYAL COLLEGE OF SURGEONS OF ENGLAND, 5 P.M.—Professor Leonard E. Hill: On Cerebral Pressure and the Cerebral Circulation. Lecture II.

HOSPITAL FOR CONSUMPTION, Brompton, 4 P.M.—Dr. Biss: Chronic Pneumonia and Bronchiectasis.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC, Queen Square, W.C., 3 P.M.—Lecture by Dr. Gowers.

HUNTERIAN SOCIETY, 8.30 P.M.—Dr. Knowsley Thornton: On the Lines of Advance in Abdominal Surgery (Hunterian Lecture II).

THURSDAY.

LONDON POST-GRADUATE COURSE, British Institute of Preventive Medicine, Great Russell Street, W.C., 3.30 P.M.—Dr. Allan Macfadyen and Mr. A. G. Foulerton: Quantitative Estimation of Albumins Present. Central London Sick Asylum, Cleveland Street, W., 5.30 P.M.—Sir William Mac Cormac: Clinical Lecture.

ROYAL COLLEGE OF PHYSICIANS, 5 P.M.—Dr. E. Seaton: The Value of Isolation and its Difficulties (Milroy Lecture I).

FRIDAY.

LONDON POST-GRADUATE COURSE, Bacteriological Laboratory, King's College, 3 P.M.—Professor Crookshank: Tuberculosis and Leprosy. 4 to 5 P.M.—Staining Sputum and Sections.

ROYAL COLLEGE OF SURGEONS OF ENGLAND, 5 P.M.—Professor Leonard E. Hill: On Cerebral Pressure and the Cerebral Circulation. Lecture III.

CLINICAL SOCIETY OF LONDON, 20, Hanover Square, W., 8.30 P.M.—Clinical Cases.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in post office order or stamps with the notice not later than Wednesday morning, in order to ensure insertion in the current issue.

BIRTHS.

APHTOMAS.—On February 5th, at Clarence House, Oldham, the wife of Griff. Aptomias, M.B., of a son.

ROBERTSON.—On February 4th, at 134, Churchchur Road, Tulse Hill, S.W., the wife of John Robertson, M.A., M.D., of a daughter. Natal papers please copy.

THOMSON.—At 11, Barns Street, Ayr, on February 14th, the wife of J. Gemmill Thomson, L.R.C.P. & S. Edin., a son.

MARRIAGE.

WATERS—METCALFE.—February 12th, at All Saints, Darton, Yorkshire, by the Rev. C. Sangster, M.A., Vicar, assisted by the Rev. T. Lovett, M.A., Woolley, George William Bennett Waters, M.R.C.S., L.R.C.P., only son of Captain G. A. Waters, R.N., of Westbourne Park Road, Bayswater, to Jessie, eldest daughter of the Rev. T. Metcalfe, Mapplewell, Yorks.

DEATHS.

HARDCASTLE.—18, Chester Crescent, Newcastle, late of Archbold Lodge Newcastle-on-Tyne, on February 17th, aged 36, Hugo Macanley Hardcastle, M.D., second son of the late Bey Hardcastle, of Alexandria.

RAINY.—On February 14th, at 25, George Square, Edinburgh, Jane Christina, widow of the late George Rainy, M.D. Glasgow.

HOURS OF ATTENDANCE AND OPERATION DAYS AT THE LONDON HOSPITALS.

CANCER, Brompton (Free). *Attendances.*—Daily, 2. *Operations.*—Tu. F. S., 2.
CENTRAL LONDON OPHTHALMIC. *Operations.*—Daily, 2.
CHALKING CROSS. *Attendances.*—Medical and Surgical, daily, 1.30; Obstetric, Tu. F., 1.30; Skin, M., 1.30; Dental, M. W. F., 9; Throat and Ear, F., 9.30. *Operations.*—W. Th. F., 8.
CHELSEA HOSPITAL FOR WOMEN. *Attendances.*—Daily, 1.30. *Operations.*—M. F., 2.
CITY ORTHOPEDIC. *Attendances.*—M. Tu. Th. F., 2. *Operations.*—M., 4.
EAST LONDON HOSPITAL FOR CHILDREN. *Operations.*—F., 2.
GREAT NORTHERN CENTRAL. *Attendances.*—Medical and Surgical, M. Tu. W. Th. F., 2.30; Obstetric, W., 2.30; Eye, M. Th., 2.30; Throat and Ear, Tu. F., 2.30; Skin, W., 2.30; Dental, W., 2. *Operations.*—W., 10.
GUY'S. *Attendances.*—Medical and Surgical, daily, 1.30; Obstetric, M. Tu. F., 1.30; Eye, M. Tu. Th. F., 1.30; Ear, Tu., 1; Skin, Tu., 1; Dental, daily, 9; Throat, F., 1. *Operations.*—(Ophthalmic) M. Th., 1.30; Tu. F., 1.30.
HOSPITAL FOR WOMEN, Soho. *Attendances.*—Daily, 10. *Operations.*—M. Th., 2.
KING'S COLLEGE. *Attendances.*—Medical, daily, 2; Surgical, daily, 1.30; Obstetric, daily, 1.30; o.p., Tu. W. F. S., 1.30; Eye, M. Tu., 1.30; Ophthalmic Department, W., 2; Ear, Th., 2; Skin, F., 1.30; Throat, F., 1.30; Dental, Tu. Th., 9.30. *Operations.*—M. F. S., 2.
LONDON. *Attendances.*—Medical, daily, exc. S., 2; Surgical, daily, 1.30 and 2; Obstetric, M. Th., 1.30; o.p., W. S., 1.30; Eye, Tu. S., 9; Ear, S., 9.30; Skin, Th., 9; Dental, Tu., 9. *Operations.*—M. Tu. W. Th. S., 2.
LONDON TEMPERANCE. *Attendances.*—Medical, M. Tu. F., 2; Surgical, M. Th., 2. *Operations.*—M. Th., 4.30.
METROPOLITAN. *Attendances.*—Medical and Surgical, daily, 9; Obstetric, W., 2. *Operations.*—F., 9.
MIDDLESEX. *Attendances.*—Medical and Surgical, daily, 1.30; Obstetric, M. Th., 1.30; o.p., M. F. S., 9; Eye, Tu. F., 9; Ear and Throat, Tu., 9; Skin, Tu., 4; Th., 9.30; Dental, M. W. F., 9.30. *Operations.*—W., 1.30; S., 2; (Obstetric), Th., 2.
NATIONAL ORTHOPEDIC. *Attendances.*—M. Tu. Th. F., 2. *Operations.*—W., 10.
NEW HOSPITAL FOR WOMEN. *Attendances.*—Daily, 2; Ophthalmic, W. S., 9.30. *Operations.*—Tu. F., 9.
NORTH-WEST LONDON. *Attendances.*—Medical and Surgical, daily, 2; Obstetric, W., 2; Eye, W., 9; Skin, F., 2; Dental, F., 9. *Operations.*—Th., 2.30.
ROYAL EYE, Southwark. *Attendances.*—Daily, 2. *Operations.*—Daily.
ROYAL FREE. *Attendances.*—Medical and Surgical, daily, 2; Diseases of Women, Tu. S., 9; Eye, M. F., 9; Dental, Th., 9. *Operations.*—W. S., 2; (Ophthalmic), M. F., 10.30; (Diseases of Women), S., 9.
ROYAL LONDON OPHTHALMIC. *Attendances.*—Daily, 9. *Operations.*—Daily, 0.
ROYAL ORTHOPEDIC. *Attendances.*—Daily, 1. *Operations.*—M., 2.
ROYAL WESTMINSTER OPHTHALMIC. *Attendances.*—Daily, 1. *Operations.*—Daily.
ST. BARTHOLOMEW'S. *Attendances.*—Medical and Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., W. S., 9; Eye, W. Th. S., 2.30; Ear, Tu. F., 2; Skin, F., 1.30; Larynx, F., 2.30; Orthopaedic, M., 2.30; Dental, Tu. F., 9. *Operations.*—M. Tu. W. S., 1.30; (Ophthalmic), Tu. Th., 2.
ST. GEORGE'S. *Attendances.*—Medical and Surgical, M. Tu. F. S., 12; Obstetric, M. Th., 2; o.p., Eve, W. S., 2; Ear, Tu., 2; Skin, W., 2; Throat, Th., 2; Orthopaedic, W., 2; Dental, Tu. S., 9. *Operations.*—Tu., 1; (Ophthalmic), F., 1.15.
ST. MARK'S. *Attendances.*—Fistula and Diseases of the Rectum, males S., 3; females, W., 9.45. *Operations.*—M., 2; Tu., 2.30.
ST. MARY'S. *Attendances.*—Medical and Surgical, daily, 1.45; o.p., 1.30; Obstetric, Tu. F., 1.45; Eye, Tu. F., 2; Ear, M. Th., 3; Orthopaedic, W., 10; Throat, Tu. F., 1.30; Skin, M. Th., 9.30; Electro-therapeutics, Tu. F., 2; Dental, W. S., 9.30; Consultations, M., 2.30. *Operations.*—Tu., 1.30; (Orthopaedic), W., 11; (Ophthalmic), F., 9.
ST. PETER'S. *Attendances.*—M. F., 2 and 5; Tu., 2; W., 5; Th., 2; F. (Women and Children), 2; S., 4. *Operations.*—W. F., 2.
ST. THOMAS'S. *Attendances.*—Medical and Surgical, M. Tu. Th. F., 2; o.p., daily, 1.30; Obstetric, Tu. F., 2; o.p., W. S., 1.30; Eye, Tu. F., 2; o.p., daily, exc. S., 1.30; Ear, M., 1.30; Skin, F., 1.30; Throat, Tu. F., 1.30; Children, Tu. F., 1.30; Electro-therapeutics, o.p., Th., 2; Mental Diseases, o.p., Th., 10; Dental, Tu. F., 10. *Operations.*—M. W. Th. S., 2; Tu. Th., 3.30; (Ophthalmic), Th., 2; (Gynaecological), Th., 2.
SAMARITAN FREE FOR WOMEN AND CHILDREN. *Attendances.*—Daily, 1.30. *Operations.*—W., 2.30.
THROAT, Golden Square. *Attendances.*—Daily, 1.30; Tu. F., 6.30. *Operations.*—Th., 2.
UNIVERSITY COLLEGE. *Attendances.*—Medical and Surgical, daily, 1.30; Obstetrics, M. W. F., 1.30; Eye, M. Th., 2; Ear, M. Th., 9; Skin, W., 1.45; S., 9.15; Throat, M. Th., 9; Dental, W., 9.30. *Operations.*—Tu. W. Th., 2.
WEST LONDON. *Attendances.*—Medical and Surgical, daily, 2; Dental, Tu. F., 9.30; Eye, Tu. Th. S., 2; Ear, Tu., 10; Orthopaedic, W., 2; Diseases of Women, W. S., 2; Electric, Tu., 10; F., 4; Skin, F., 2; Throat and Nose, S., 10. *Operations.*—Tu. F., 2.30.
WESTMINSTER. *Attendances.*—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1; Eye, Tu. F., 9.30; Ear, M., 9; Skin, W., 1; Dental, W. S., 9.15. *Operations.*—Tu. W., 2.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS FOR THE CURRENT WEEK'S JOURNAL SHOULD REACH THE OFFICE NOT LATER THAN MIDDAY POST ON WEDNESDAY. TELEGRAMS CAN BE RECEIVED ON THURSDAY MORNING.

COMMUNICATIONS respecting Editorial matters should be addressed to the Editor, 429, Strand, W.C., London; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 429, Strand, W.C., London.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL are requested to communicate beforehand with the Manager, 429, Strand, W.C.

CORRESPONDENTS who wish notice to be taken of their communications should authenticate them with their names—of course not necessarily for publication.

CORRESPONDENTS not answered are requested to look to the Notices to Correspondents of the following week.

MANUSCRIPTS FORWARDED TO THE OFFICE OF THIS JOURNAL CANNOT UNDER ANY CIRCUMSTANCES BE RETURNED.

IN order to avoid delay, it is particularly requested that all letters on the editorial business of the JOURNAL be addressed to the Editor at the Office of the JOURNAL, and not to his private house.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports, favour us with duplicate copies.

Queries, answers, and communications relating to subjects to which special departments of the BRITISH MEDICAL JOURNAL are devoted will be found under their respective headings.

QUERIES.

J. C. would be glad to know if there is any pamphlet published giving statistics as to deaths from ether and chloroform.

DR. CORAM JAMES (16, Thayer Street, W.) would be greatly obliged for any information about a consulting room couch (convertible), where to be obtained, cost, etc.

FEBRICULA wishes for information as to the most recent literature and the most recent epidemics of typhus fever that have occurred in this country during the last few years.

IGNORAMUS asks for advice as to the treatment of a red nose in a young man of 20 years. He is a strict abstainer. There is no obstruction in the bowels, no hyperemia of the mucous membrane. His father and mother have splendid complexions.

M.B. would be glad if any member could inform him of any home or institution of any kind which would receive a hysterio-epileptic female patient aged about 30 on payment of 5s. to 7s. 6d. a week. The mother is a widow and entirely dependent on lodgers for a living, but on account of the daughter is unable to get anyone to stay there.

EXAMINATIONS FOR D.P.H. DIPLOMA.

INDIGENT would like to know which examination for the diploma of Public Health is least difficult, how much it costs to pass, and how long it would take to read for the same?

*** "Indigent" does not state when he was registered or entitled to be registered; if before January 1st, 1890, certain rules as to study would not apply to him; if after that date, these rules must be complied with. Particulars as to examination fees, as to course of study, etc., in the case of the various universities and medical corporations granting diplomas of Public Health, are given in the BRITISH MEDICAL JOURNAL of September 7th, 1895, page 611.

THE NEW PHOTOGRAPHY.

W. C. writes: In the BRITISH MEDICAL JOURNAL of February 15th there is a description of apparatus for obtaining x ray shadowgrams. I should like to know more definitely (1) how many Groves or Bunsen cells are used, and how many amperes of current are to be sought for? (2) Would a Wimshurst influence machine, sparking 7 inches, do instead of a battery and coil? (3) What is a Tesla transformer, and is it known by any other name?

*** (1) The number of Groves or Bunsen cells which are required depends on the size of the induction coil which it is proposed to use. Thus for the coil giving (say) 2-inch sparks, five small ones would be required. (2) We have tried to obtain photographs by means of the discharge from a Wimshurst machine, but without success. (3) The Tesla transformer is practically a second induction coil, the primary coil of which receives its current from the secondary or the ordinary induction coil. In this way higher voltage is obtained, and the alternations of the current are raised to a very high frequency.

W. S.—The highly exhausted vacuum tubes, suitable to the new photography, can be obtained from Messrs. Newton and Sons, 3, Fleet Street, E.C.

A KNOTTY QUESTION.

R. writes: I am an assistant. My chief has under his care a cottage hospital. Yesterday the matron informed me that a female patient was knitting a pair of socks for me, not my chief. Kindly say if I should or should not refuse the socks.

*** This is a knotty question, and its somewhat domestic character makes us doubt whether we are competent to advise. If our correspondent's principal had a wife, we should be disposed to advise him to consult that lady. It may turn out that she might, for her own reasons, prefer that our correspondent rather than her husband should be the recipient of the proposed tribute to his understanding.

RAIN-WATER SEPARATORS.

SADDLE AND BRIDLE writes: I should be glad to know if the patent rain-water separator, manufactured at Haslemere, is a reliable method for supplying a house with drinking water. Is it to be recommended where water is difficult to obtain? I know of one in use, and the water to look at is all that can be desired.

*** Much depends upon the locality of the house; whether it is situated in town or country, and whether pigeons and other birds are in the habit of perching on the roof and defiling it. What the separator does it does very effectually, that is, it turns the first washings of the roof on one side and only collects that which flows after the first downfall has been rejected. No mechanical contrivance can go further than this, but it is quite obvious that, although the first washing of the roof may in general be effectual in removing most of the dirt which may have accumulated upon it, there is not the slightest security that in any case all the dirt will have been washed off before the water begins to pour into the reservoir. The separator, then, gives no absolute