

Association Intelligence.

LIST OF MEMBERS: NOTICE.

IN accordance with Law 24, a list of members of the BRITISH MEDICAL ASSOCIATION will shortly be published. Gentlemen whose designations or addresses are incorrectly given in the last list, or on the wrappers of their Journals, will oblige by at once forwarding the necessary corrections to the Editor of the JOURNAL, 37, Great Queen Street, Lincoln's Inn Fields, London, W.C.

Reports of Societies.

MEDICAL SOCIETY OF LONDON.

SATURDAY, OCTOBER 10TH, 1857.

FRANCIS HIRD, Esq., President, in the Chair.

THIS was the first meeting of the Session, and was numerously attended.

INSTRUMENT FOR CLINICALLY DETERMINING THE AMOUNT OF SUGAR IN DIABETIC URINE. BY A. B. GARROD, M.D.

The instrument, named a *Glucometer* (manufactured by J. Coxeter, Grafton Street East), is constructed upon the fact, that glucose or diabetic sugar, when boiled with a solution of carbonate of potash, gives rise to an amber colour, and that the tint is in proportion to the quantity of sugar. The apparatus consists of a standard, a graduated tube of the same calibre as the standard, and an accurately divided minim measure, the standard being filled with a solution of the exact tint produced by a known quantity (half a grain) of the diabetic sugar to the fluid ounce. The following is the method of using the glucometer:—A small quantity of the urine, say half a fluid drachm, either previously diluted or not, according to circumstances readily ascertained, is to be accurately measured in the small minim tube, and mixed with the same bulk of a solution of carbonate of potash of a given strength, and after the measure has been washed out with a drachm or two of distilled water, the whole is to be kept at the boiling point over a spirit-lamp for five minutes, either in a large test-tube, or, still better, a very small flask. After cooling, the coloured liquor should be transferred to the large tube, and distilled water added until the tint exactly corresponds to that of the standard,—a process which may be readily effected by holding the tubes side by side, directing them to a moderately bright light. All the required data for determining the amount of sugar are now obtained. Suppose, for example, that the half drachm of urine employed in the quantitative analysis requires to be diluted so as to occupy six and a half drachms before the standard tint is obtained, such urine would contain six grains and a half of sugar per ounce. Again, suppose the urine had been diluted with three times its bulk of water before being employed in the glucometer, which, when the urine is rich in sugar, may be necessary, in order to prevent the graduated tube being of inconvenient length, then it is only required to multiply the amount of sugar by four to obtain the total quantity in the original urine. In the above-named experiment it would therefore be twenty-six grains in each fluid ounce. Dr. GARROD expressed a hope, that by means of the glucometer the clinical determination of sugar might become a matter of little difficulty, and capable of being effected by any one engaged in the practice of medicine; and he also considered that such determinations might prove of great value, not only in ascertaining the amount of disease under which any diabetic subject might be suffering, but also the value of various articles of diet and of different remedies in the treatment of this disease.

STARCH FROM THE ANIMAL KINGDOM. BY F. W. PAVY, M.D.

Dr. PAVY exhibited some of the newly discovered amylaceous material which is obtainable from the healthy liver, and which forms the source of the animal sugar. Upon the announcement of the discovery by Bernard in 1848, that sugar was formed in the animal body, it was referred to a transformative

action of the liver on an albuminous constituent of the portal blood. The next step of information showed that the production of sugar could not be regarded as analogous to the process of secretion. In September, 1855, Bernard announced, at the Académie des Sciences, that the formation of sugar continued for twenty-four hours after death, in a liver from which the blood had been entirely removed. During the early part of the past summer, Dr. Pavy had noticed, whilst conducting experiments on the destruction of sugar, that he could isolate a material from the liver which subsequently underwent transformation into sugar; and he had recorded in his laboratory-book the influence of chemical agents, such as acids, alkalies, and alcohol, on this material. He had since learned, however, on his recent visit to Paris, that Bernard had most satisfactorily made out the nature and relations of this body, which, from the analogy presented in its chemical bearings to starch, he had called an animal amylaceous or starchy material. It had also been called glucogenic material, and this was probably the best term to apply to it at present, because it implied nothing more than we knew the substance in reality to be. The specimen of this glucogenic material which Dr. Pavy exhibited had been procured from the liver of a dog in the following manner:—The dog had for some days been submitted to a strictly animal diet, so as to preclude the introduction of any starchy material into its system from the vegetable kingdom. After killing the animal, by the destruction of the medulla oblongata, the liver was removed, and a tube firmly ligatured in the portal vein, for the purpose of passing a current of water through the vessels to wash out the blood, and at the same time remove the sugar. In half an hour the water which had passed through the vessels was colourless and destitute of sugar, as was also the tissue of the liver itself. The organ was now cut up into small slices, placed in an evaporating dish, boiled in the liquid which exuded from it, and subsequently strained and pressed to obtain all the liquid that was procurable. The object, in fact, was to make a decoction of the liver, which holds in solution the glucogenic material, and has, thereby, communicated to it an opalescent or milky appearance. This was then mixed with alcohol (in the proportion of one part of the decoction to about five of the spirit), and immediately a precipitate was produced, which was collected on a filter and dried. The substance was of a greyish colour, which resulted from contamination with albuminous matter. It might be made perfectly white by prolonged boiling in a solution of potash, which did not at all affect its properties. It was insoluble in alcohol and strong acetic acid. Its solution in water presented the same milky appearance as the fresh decoction of liver. It gave no reaction with the sugar-tests, nor was it susceptible of undergoing fermentation. It was, however, readily convertible into dextrine and sugar by the same agents which produced this change in the starch of the vegetable kingdom. Indeed, boiling with acids and contact with diastase, saliva, pancreatic juice, blood, or any animal matter in a state of change, very readily effected its transformation into glucose, when it gave all the characteristic reactions of this substance. Dr. Pavy further stated that, by means of chemical agents and the microscope, the natural seat of this material could be shown to be in the interior of the hepatic cells.

THE PRESENT STATE OF SURGICAL SCIENCE IN REFERENCE TO CANCER AND ITS TREATMENT. BY F. HIRD, ESQ.

After briefly reviewing the important subjects embraced in the origin and development of cancer, Mr. HIRD proceeded to discuss the treatment, dwelling on the means of arresting cancerous growths by medicinal agents, and contrasted the comparative advantages of removing the local disease by caustics and the knife. In reference to medicines, the author believed that, if any remedy possessed a power of retarding the progress of the disease, it was arsenic, which he administered with cod-liver oil. Caustics the author had found more tedious in their operation and more painful than the knife, and to occasionally fail to enucleate the tumour; and he had no faith in a supposed physiological action on the constitution through the part treated. He had seen six cases in which the disease returned after removal by caustics, and had read and heard of many more. Nevertheless, there are cases in which caustics offer greater advantages than the knife; as in certain localities, and in particular conditions of the tumour, and where loss of blood, or the dread of a cutting operation, would greatly depress the patient. Early operation the author strongly advised, as affording the only hope from surgery in scirrhus, colloid, and epithelioma. In encephaloid he did not advise an operation.

12 in France, the mortality was 72.2 in towns to 11.5 in the country, showing that foundling hospitals should always be established in the country: a point seldom insisted on.

2. It was said that the mortality of foundlings was greatest in the first year, and usually 50 per cent., but also greatest in the first month of the first year. In Bordeaux, the foundling mortality was 51 per cent.; in Lyons, 37.1 per cent., in the first year; but the mortality was not stated for the first month. Still he deduced the latter from lying-in hospitals and data of accoucheurs, and he found it in both cases 6.1 per cent. In all cases of children in a general population it was so also. In Ireland, the mortality in all children aged 1 month was very high, even in the ordinary population: for all Ireland, civic districts, 31.6; rural, 22.2 per cent.; while in Leinster it was respectively 38.8 and 24.9. In England, the mean mortality of such children, compared to the number of births in the year, was—towns, 4.6; agricultural counties, 4.1 per cent. For the first year it was—Ireland, civic, 14.8; rural, 8.8 per cent. England—towns, 16.7; agricultural counties, 13.9 per cent.

3. Hospital aggregation was a prolific cause of increased mortality. In London alone, for children under 1, the mortality of the population was, from diseases peculiar to children, under 1 year, 11.1 per cent.; under 5, 22.5 per cent.; from all diseases, 16.6 per cent. in the first case, to 34.1 per cent. in the second. He attributed the mortality of children under 1 month, in Ireland, to the filthiness and poverty of Irish cabins, which he described in a quotation from the *Quarterly Review*, No. 203, p. 78.

Thus, apart from foundling hospitals, a large share of this mortality could be accounted for.

In specifying some of the causes of mortality peculiar to foundling hospitals—

1. Effect of removal had not the injurious results ascribed to it. This was proved by statistics from France.

2. Season. Spring was most fatal to the children. All deaths being 100, those in spring would be 30.8; winter, 27.7; summer, 27.1; autumn, 14.3. Out of hospitals, in a general population, it was greatest in winter.

3. The abuse of the recumbent position of infants, and want of exercise, was then dwelt upon at length, and M. Hervieux's experience quoted to show the fatal effects of it.

4. Dr. Routh then proceeded to show that want of breast-milk, including cases of privation, cold, premature debility, atrophy, in a general population, could only account for a mortality of 3.6 per cent. per annum in 100 births. That therefore this influence was greatly exaggerated, particularly as M. Benoiston de Chateaufort had shown that the mere substitution of a hired wet-nurse's for a mother's milk increased the mortality 10.6 per cent.

Dr. Routh concluded by giving the result of his experience, as confirmatory of these views, in two institutions to which he was attached, specially insisting on the mortality from atrophy, diphtheritis, and diarrhoea. The effect of different kinds of diet on mortality he reserved for a second paper.

Dr. WEBSTER said that the mortality in foundling hospitals was so great that they should not be founded or patronised by any government. This great mortality was owing to several causes, amongst which was the want of breast-milk, the bad mode of feeding, and the swathing of the children up like mummies.

Dr. CHOWNE remarked, that to make the comparative statistics of town and country valuable, many circumstances besides the mere number of deaths must be taken into consideration, such, for instance, as the food employed, the care taken of the children, etc. The mortality in the London Foundling Hospital had much decreased of late years, in consequence of breast-milk having been substituted for artificial diet. But the congregation of many children together must be injurious, as was also the recumbent position in which children in some hospitals were placed. Many children of wet-nurses died whilst their mothers were suckling the offspring of others. This mortality often arose not only for the want of the natural support, but from the absence of the mothers' care, nursing, etc.

Mr. HUNT attributed the diminished mortality of children in the country to the greater purity of the milk, and the absence of alum in the bread.

Dr. LANKESTER hoped that the paper of Dr. Routh would have an influence in checking the system of collecting a large number of healthy children together in a kind of hospital. Want of breast-milk had less influence on mortality than the want of proper food and care in the management of the children.

Mr. STREETER considered that the great mortality in children brought up by hand arose from the difficulty of obtaining an uniformity in the character of the food administered. In the absence of great intelligence in the nurse, few children so brought up lived. It was a good maxim, that if food given did not agree it should be changed. Generally, the artificial food given was too thick.

Dr. E. SMITH remarked, that the substitutes for milk given to young children, as arrowroot, etc., were deficient in those nutritive properties which were found in milk, and hence were a cause of much mortality. Another cause was the bad constitution of many mothers, whose milk was consequently unsustaining.

Mr. HARDING observed, that the figures in the paper showed the mortality amongst the entire population. If the population were divided into classes, it would be found that the great mortality was amongst the children of the poor, and not amongst those of the middle and higher classes. The mortality of the children in foundling hospitals bore comparison only with the poor, who were deprived of the advantages of proper care in their bringing up.

Dr. ROUTH, in reply, stated that he had not in his paper entered into some of the points discussed, but had confined it within certain limits. He had avoided entering into the question of the influence of diet, as that would form the subject of a separate paper.

Medical News.

BIRTHS, MARRIAGES, DEATHS, AND APPOINTMENTS.

In these lists, an asterisk is prefixed to the names of Members of the Association.

BIRTHS.

CLAPP. On October 18th, at 22, Orchard Street, Portman Square, the wife of W. J. Clapp, Esq., Surgeon, of a son.
DOBSON. On October 24th, at Highbury, the wife of W. Coyle Dobson, Esq., Surgeon, of a son.
GUNNING. On October 24th, at Cloughton, near Scarborough, the wife of Henry James Gunning, Esq., Surgeon, of a son.
LESLIE. On October 18th, at Alton, Hants, the wife of *L. Leslie, M.D., of a son, stillborn.
MACKIE. On October 8th, at Inch, Aberdeenshire, the wife of *George Mackie, M.B., of a daughter.

MARRIAGES.

FERNIE—MURPHY. *FERNIE, Andrew, Esq., of Wellingborough, Northamptonshire, to Sophia, youngest daughter of the late Richard Murphy, Esq., of Claremont Row, Islington, on October 21st.
ROOKE—SHIPTON. ROOKE, Thomas Morley, M.D., of Scarborough, to Mary Ellen, second daughter of James Shipton, Esq., of Wolverhampton, on October 18th.

DEATHS.

COLEMAN, John, jun., Esq., Surgeon, at Dover, aged 38, on October 26th.
JEFFERY. On October 25th, at Jerington Place, Arthur, infant son of G. A. Jeffery, Esq., Surgeon, of Eastbourne, Sussex.
LICHTENSTEIN, Dr., Professor of Natural History in the University of Berlin, and Director of the Geological Museum in that city, lately.
ROGNETTA, Dr., at Naples, lately.

APPOINTMENTS.

ACLAND, Henry W., M.D., F.R.S., elected, by Convocation, Clinical Professor in the University of Oxford, in the room of the late *J. A. Ogle, M.D. Dr. Acland was opposed by Dr. Robert Jackson, of Oxford. The numbers of votes were: for Dr. Acland, 470; for Dr. Jackson, 222.
*ADAMS, William, Esq., elected Surgeon to the Royal Orthopaedic Hospital, in the room of the late E. Lonsdale, Esq.
WEST, James F., Esq., elected Surgeon to the Queen's Hospital, Birmingham.

HEALTH OF LONDON:—WEEK ENDING OCTOBER 24TH, 1857.

[From the Registrar-General's Report.]

THE total number of deaths registered in London in the week that ended on Saturday (October 24th), is 988. In the corresponding weeks of ten previous years, 1847-56, the average number was 1002. The same rate of mortality in the present increased population would produce 1102 deaths; and a comparison of the real with the estimated result shows a difference in favour of last week to the extent of 114.

Whilst the population of the metropolis lost 988 lives last week, the registration of births shows that 1582 children were born; sufficient to supply the places of the dead, and to increase the number of inhabitants by 594.

The deaths of 476 males and 512 females were registered. 231 boys and girls died before completing their first year; at the other extreme of life, 26 men and women died who were 80 years old and upwards. Two aged persons, both widows, one in Paddington, the other in St. Luke's, attained the respective ages of 93 and 96 years.

The deaths from diarrhoea, which numbered 79 in the first week of October, fell last week to 42, about the average of former years; of that number, 27 occurred to children under five years of age.

Six deaths from cholera and choleraic diarrhoea were registered last week. At 19, Asylum Terrace, Chelsea, a boy, aged 11 months, died of "cholera infantum" (62 hours). At 10, Duke Street, Old Artillery Ground, Whitechapel, a boy, aged six years, died of "choleraic fever" (14 days). At 3, Nelson's Court, Limehouse, a boy, aged nine months, died of "choleraic" (7 days). At 2, Mast House Place, Mill Wall, Poplar, a man, aged 77 years, died of "Asiatic cholera" (5 days), collapse (2 days), secondary fever (3 days). At 8, Aldred Street, Bermondsey, a man, aged 39 years, died of "choleraic diarrhoea"; and at Hill House, Gordon Road, Peckham, a girl, aged 8 months, died of "choleraic diarrhoea". Typhus was fatal to 54 persons, 29 of whom were under 20 years of age; 21 children died of measles, 50 of scarlatina, and 27 of whooping-cough. At 17, George Terrace, Brook Street, Upper Clapton, a man, aged 37 years, died of fever (3 weeks). The registrar adds: "this is the second death from typhus fever in Brook Street, and there are eight or nine other cases of fever."

Last week the births of 814 boys and 768 girls, in all 1582 children, were registered in London. In the ten corresponding weeks of the years 1847-56, the average number was 1475.

The registrar of the West Ham sub-district, which adjoins London, reports:—"No fresh case of cholera or of death has occurred in my district during the week."

At the Royal Observatory, Greenwich, the mean height of the barometer in the week was 29.638 in. The highest reading was 29.974 in., which occurred on Saturday; the lowest was 29.414 in., which occurred on Sunday. The mean temperature of the air was 51.5°, which is 2.7° above the average of the same week in 43 years (as determined by Mr. Glaisher). The lowest temperature in the week was 42.7°, on Thursday. The wind was variable during the week; but the north-east winds prevailed. On Thursday, the wind blew from the north and north-north-east, while heavy rain fell continuously during the whole day, making the total fall at 9 p.m., 2.57 in. The average annual fall of rain in London during the seventeen years 1840-56, was 24 in.; consequently, more than a tenth part of the average fall of rain in 365 days fell on Thursday last. The fall of rain on an acre was 58,140 gallons, or rather more by weight than 259 tons. As the area of the London districts is 78,029 acres, the fall of rain on the whole surface, if the average rainfall be assumed to be represented by the Greenwich Observation, exceeded twenty million tons, or eighty-four million hogsheds. Now the question of the drainage of London is under consideration, these facts will no doubt attract the attention of engineers.

ELECTION OF SURGEON TO THE QUEEN'S HOSPITAL, BIRMINGHAM.

At a meeting of the Council of Queen's College, held on Wednesday, October 14th, the Rev. Chancellor Law in the Chair—the Mayor of the Borough, the High Bailiff of the Manor, the Dean of the Faculty, the Rev. Dr. Miller, Professors Drs. Birt Davies and Heslop, F. I. Welch and T. Bagnall, Esqrs., Messrs. E. T. Cox, Armfield, Boucher, Taylor, Cliff, and Haines, being present—the following Report from the Professors was presented:—

"The Professors in Medicine and Surgery of the Queen's College at Birmingham, having been requested by the Council to report on the testimonials of the candidates for the office of Surgeon to the Queen's Hospital, specifying the names of such candidates as in their judgment are qualified and eligible, and in their opinion best fitted to fill the vacant appointment, and the grounds of their recommendation, have to report that six applications have been received; namely, from—

"Mr. Joseph Sampson Gamgee, Staff-Surgeon of the First Class, principal Medical Officer of the British Italian Legion during the war, late Assistant-Surgeon to the Royal Free Hospital, London, House Surgeon and Ophthalmic Surgeon's Assistant at University College Hospital.

"Mr. Benjamin Hunt, late House Surgeon of University College Hospital, late Resident Physician's Clinical Assistant at the Hospital for Consumption at Brompton, late House Surgeon to the Kent County Hospital for Diseases of the Eye and Ear, and late Medical Officer of the Queen's Hospital.

"Mr. Thomas Furneaux Jordan, late Resident Surgeon of the Warneford Hospital and Bathing Institution, Leamington, and Junior Anatomical Demonstrator at Queen's College.

"Mr. Henry Lakin, Surgeon to the General Dispensary, late Assistant-Surgeon *Dreadnought* Hospital Ship, Greenwich, late Assistant-Surgeon Smyrna Hospital and General Hospital before Sebastopol.

"Mr. James William Moore, Surgeon in the Bombay Army, Honourable East India Company's Service, late Resident Medical Officer of the Queen's Hospital.

"Mr. James F. West, late Resident Medical Officer of the Queen's Hospital.

"That after mature and careful examination of the testimonials of the respective candidates, the Professors report that all the candidates are both qualified and eligible.

"That in their judgment, Mr. Joseph Sampson Gamgee appears best fitted for the appointment, on the following grounds:—

"That he was a most distinguished student of University College, London, and obtained, as evidence of his abilities, no less than five gold medals in the various sciences of anatomy, physiology, surgery, clinical medicine, and clinical surgery.

"That he discharged the responsible duties of Resident House Surgeon at University College Hospital, and also those of the Ophthalmic Surgeon's Assistant, to the satisfaction of the surgical staff and the governors at large.

"That for a period of two years he availed himself of the vast field of study afforded in the hospitals, dissecting-rooms, and in the museums of the continent, and obtained such a reputation for industry, ability, and skill, as to warrant the strong testimonials of such men as the Baron Larrey, surgeon to the Emperor Napoleon, of M. Bonnet, Professor of Clinical Surgery in the Hôtel Dieu of Lyons, of Carlo Bucci, Professor of Surgery in the University of Pisa, of M. Velpeau, member of the French Institute, who says:—'My personal knowledge of you, the zeal of which you have given proof in our hospitals, your published writings, warrant me in affirming that you have all the intelligence, all the learning, and all the aptitude requisite for an excellent hospital surgeon, and that science will find in you a worthy representative'—and of many other eminent surgeons in France and Italy.

"That Mr. Gamgee was appointed to organise the medical staff and superintend the hospitals of one of the British Foreign Legions in the late war, the onerous duties of which position were so fulfilled by him, that the Minister of War, the Director-General of the Army Medical Department, his Excellency Sir James Hudson, and others, expressed their opinions of his public services in high terms.

"In addition to the recommendation of the distinguished individuals above referred to, testimonials are submitted to the Professors in favour of Mr. Gamgee from many of the most distinguished medical men of this country; one of these, from Professor Paget, F.R.S., of London, is thus expressed:—'He (Mr. Gamgee) is a gentleman not only of great natural ability, but of surpassing activity and enterprise. How good a surgeon he is, he has proved by his numerous works, and by the reputation he has gained in every post he has filled; how able to teach others, the energy and clearness with which he speaks and writes, will abundantly testify; how skilled in extending and improving surgical science, his constant zeal in new and laborious inquiries has long established.'

"As an author, Mr. Gamgee is favourably known to the profession by his works on Pathological Anatomy and Clinical

Surgery, and on the Treatment of Fractures by the Starched Apparatus, and also by numerous papers on scientific subjects in medical periodicals.

"In conclusion, it may not be irrelevant to state that Mr. Gamgee is within a few months of thirty years of age."

After some discussion, the Council proceeded to a vote, which resulted in the election of Mr. J. F. West, by a majority of one.

THE WATERLOO BRIDGE MURDER.

THE adjourned inquest on the body found on an abutment of Waterloo Bridge was concluded on Monday last.

MR. R. B. PAINTER, divisional surgeon to the F division of police, in his last evidence before the Court, gave a short outline of the main features of the case under investigation; but there were one or two points which he had omitted to notice, and which he should like now to supply. He had made a further examination of the remains of the deceased, and on the ramus of the right ischium he found a small portion of the corpus cavernosum. He had placed the portions in an antiseptic solution; but before doing that, he separated a portion of muscles with some saline particles, and, placing them in a bottle, retained them carefully in his own immediate possession. That bottle, with its contents, he had since handed to Dr. Taylor for analysis, with whom he had been associated in examining the remains subsequent to the last inquisition.

DR. A. S. TAYLOR, to whom the examination of the body had been entrusted, read the following report:—

"I made an examination of these remains on three separate occasions—viz., on the 18th, 19th, and 21st of October. They were shown to me on each occasion by the divisional surgeon, Mr. Painter, in the presence of Inspector Durkin. These remains are parts of a human body, and, making some allowance for the missing portions, they admit of an accurate adjustment to each other. Twenty-three pieces of the body were shown to me, consisting chiefly of bones with the flesh adhering to them. The flesh had been roughly cut from the bones, apparently with the view of removing as much of it as possible; and the parts had been cut and sawn into small lengths, probably to reduce their bulk, and to allow them to be packed within a small space. The trunk, including part of the chest and spine, has been cut into eight pieces; the upper limbs have been cut or sawn into six, and the lower limbs into nine pieces. The deficient portions are the head, with the greater part of the spine—namely, fourteen out of twenty-four vertebra (seven cervical and seven upper dorsal), the hands, the feet, and some portions of the left side of the chest. The whole of the viscera of the chest and abdomen are also deficient. When compared with the average weight of the body, the quantity found is small. The twenty-three pieces produced, after soaking in brine for some days, weighed only 18 lb. This is about one-eighth of the average weight of the adult body.

"These remains have been examined especially with a view to the solution of the following questions:—

- "1. The sex, age, and stature of the deceased.
- "2. The presence of any physiological or pathological peculiarities in reference to identity.
- "3. The presence of any marks of violence with reference to the probable cause of death.
- "4. The general condition of the remains, with a view to determine whether they are parts of a dissected body, and whether they had undergone any chemical process for the purpose of preservation.
- "5. The length of the period which has elapsed since the death of the deceased.

"1. *Sex and Stature of Deceased.* It is unnecessary to deal with a question sometimes raised on these occasions, whether the remains, or any of them, are those of an animal. Beyond all doubt, they are parts of a human body, and there are no duplicate portions, such as are commonly found when bodies have been used for the lawful purposes of dissection. The parts found belong to one and the same body. The sex is also placed beyond all doubt. The length and massiveness of the bones of the upper and lower limbs, the marked characters of the ridges and processes, the form of the pelvis, the dimensions of the part called the inlet, the narrowness of the space in the arch of the pubis, clearly indicate that the deceased was of the male sex. This is confirmed by the remains of a portion of the anatomical structure of the male still adhering to the arch of the pubis on the right side. An attempt has obviously been made to destroy all traces of the sex; and this, so

far as the soft parts are concerned, has been effected on one side of the arch of the pubis, but not on the other. These sexual parts have not been dissected, but rudely mutilated, and irregularly cut on the two sides after death. The firmness, solidity, size, and weight of the bones, the complete ossification of the ends of the long bones, and the thickness of the shafts of the thigh-bones, compared with the space occupied by the medullary cavities, are in a condition which show that the deceased had reached a full adult age, which I would assign presumptively, judging from the appearance of the skeleton, at from 30 to 40 years.

"1. *Physiological or Pathological Peculiarities.* The bones presented in no part marks of malformation, disease, united fractures, or mechanical injury, excepting that which had been produced after death by sawing. Some of the joints were fixed with the sawn portions of the bones in an unusual direction. The head of the right thigh-bone remaining on the hip-joint was flexed or bent on the trunk at an angle of 45 deg.; the knee was also firmly flexed on this side, at an angle with the thigh. The left arm was fixed in such a direction as to be widely separated from the left side of the body, instead of lying parallel to it; and on this side the forearm was firmly bent on the arm at the elbow-joint, at an angle of 45 deg. On the right side, viewing the direction of the bones, as fixed by the portions left in the joints, the forearm was bent on the upper arm at an angle of 80 deg. On examining the joints, it was found there was no ossification or other disease to account for this firmly fixed condition of the upper or lower limbs on the right side, and the upper limb on the left side. So I infer from this examination that the limbs had not been relaxed since they had undergone the rigidity of death; that the body had been cut and sawn while in this rigid state; and that the mode in which it was subsequently treated, to which I shall presently refer, tended to preserve the fixed condition of the joints, as a result of cadaveric rigidity in a constrained posture. The small portions of skin remaining on the wrist and on the right knee are rather thickly covered with long dark hair.

"III. *Marks of Violence.—The Cause of Death.* The cutting and sawing of these remains took place after death. The cutting has been effected roughly with a knife, while the sawing has been performed in the shafts of the long bones with a fine saw. In one portion of the left side of the chest, comprising the second, third, and fourth ribs, with one half of the chest bone attached, there is an aperture in the flesh presenting the appearance of a stab. It is situated in front, between the third and fourth ribs, near their junction with the chest bone. It has penetrated the cavity of the chest, and presents, as seen from the inside, an opening of about six-tenths of an inch in its longest axis, which is obliquely placed, but inclined to a vertical direction. Assuming that this wound had been inflicted during life, it would have penetrated the heart, and have produced rapid, if not immediate death. The muscles of the chest through which this stab had passed were for some space around of a dark red colour, evidently produced by blood which had been effused as a result of this wound. This appearance is unlike that produced by a cut or stab in a cold dead body in which circulation has ceased. The edges of the wound are everted, and this fact, together with the infiltration of the muscles with blood, which even the soaking in liquid for a week had not removed, lead me to the conclusion that this wound was inflicted on the deceased either during life or within a few minutes of death—i.e., while the body was warm and the blood was liquid. There is no other mark of violence during life, or any other appearance in the remains which points to a cause of death. The deceased may have actually died from a fracture to the skull and injury to the brain, or from a stab in the abdomen affecting some large bloodvessel. As the organs of the chest and abdomen are not forthcoming, any opinion on the cause of death must be a matter of speculation. The ribs and muscles of the right side of the chest (which are complete in three pieces), when placed together and examined present no marks of stabbing or fracture; any mortal wound on the chest, therefore, must have been on the left side. The first, fifth, and sixth ribs, with their attached muscles, are wanting on this side. There may have been stabs in the spaces between these missing ribs which would have involved the large bloodvessels of the chest or the heart itself.

"IV. *General Condition of the Remains.* The portions of the twenty three pieces of the body presented no appearance of having undergone dissection for the purposes of anatomy. The muscles, bloodvessels (which were not injected), and the nerves had been cut through in all directions without any reference to relative positions, or the respective courses of the

vessels and nerves. The spinal marrow had been violently torn out of the vertebral canal, and left hanging by its sheath to the vertebrae. The joints had been sawn through, evidently with great trouble, at points where a scalpel in the hands of even a young anatomist would have speedily effected a separation of the limbs. The acromion process of the right scapula or bladebone had been sawn through in order to remove the shoulder. The right clavicle was left attached to the upper rib on that side; the sternum, or chest bone, was sawn in a right line through its centre, while the cartilages of the remaining ribs, which are always cut for the convenient examination of the chest, were uncut. The left scapula or bladebone had been roughly sawn through, so as to leave the cavity of the shoulder-joint, with the neck of the bladebone still attached to the head of the humerus, or long bone of the arm; and the ribs and processes of the vertebrae of the spine were sawn and cut without reference to their anatomical bearings. The pelvis was sawn into two pieces through the centre of the sacrum. In short, the clearest examination, coupled with the knowledge derived from an experience of seven years spent in the study of anatomy by dissections, leads me to the conclusion that these remains have not been employed for any anatomical purpose whatever. On the contrary, I believe that, from the period at which the rigidity of death took place they have been rendered utterly useless for any such purpose. The flesh left upon the bones was brittle and of a brownish colour. A portion of this, as removed from the bones soon after their discovery, was delivered to me by Mr. Painter, and I made a chemical examination of it in his presence. It had not undergone putrefaction, and had the smell of salted muscle. It was submitted to analysis for the detection of those substances which are used for the preservation of animal matter—namely, arsenic, corrosive sublimate, common salt, nitre, alumina, and chloride of zinc, with the result that the only substance present was common salt. This was separated from the muscular fibre, and obtained in a crystalline state. The thicker portion of the flesh remaining on the bones of the pelvis, when cut into, was of a slightly reddish tint. This red tint was probably partly owing to the effects of salting. The superficial portion of flesh in the remains presented a brownish colour, and softened and corrugated appearance, produced by exposure to boiling water. The ligaments, tendons, the exposed portions of cartilage of the joints, and the skin on the wrists and right knee, presented such appearances as exposure to boiling water for a short period would alone account for or explain. The cuticle of the skin, which was not in a state of putrefaction, could be peeled off. The bare skin itself was swollen, gelatinous-looking, and curved inwards at the margin where the feet had been removed from the cellular membrane beneath. Such would be the effect produced by boiling water. An examination of the swollen shafts of the long bones clearly shows that the marrow has been melted out and removed by boiling water from the medullary cavities at each exposed extremity. The boiling has not been continued for a length of time, since the deep-seated portions of the muscles do not show the changes which would have otherwise been produced in them, and the marrow is not removed from the centre of the long bones. The divided ends of the arteries, and the divided portion of the spinal marrow with its sheath, also show such effects as boiling water would produce. The cut portions of the arteries are opaque, hardened, and averted.

"To this exposure to the action of boiling water, while the separate portions of the body were in a state of cadaveric rigidity, I attribute the peculiar fixation of the thigh, knee, and arms in a flexed or bent condition. The ligaments appear to have contracted as a result of the action of hot water, and thereby to have retained the same portions of bone, remaining on the joints in the position which they had acquired as the result of rigidity. The appearances are such as are produced by boiling water on dead animal matter. There is nothing to show that boiling water has acted on any living structure, while it is obvious, from the effects produced on the sawn bones, ligaments, and arteries, that the body must have been cut up before the parts were exposed to boiling temperature. It is my opinion that the remains were exposed to boiling water before they were salted. In reference to the portion of flesh which I examined, the salt was in such quantity that it was easily dissolved from the outside by cold distilled water; and I am confirmed by Mr. Painter that when first examined by him parts of flesh presented solid gritty particles like salt. These facts lead to the inference that the salting took place after the partial boiling of the remains; the object of these two operations being probably the same—namely, to prevent putre-

faction, and the probable discovery of the remains by the escape of putrescent effluvia. The piece of flesh which I examined, as taken from the remains by Mr. Painter, had no offensive smell whatever, although he had kept it for a period of eight days.

"5. *Period since Death.* On this point only a speculative opinion can be given. As the remains have been partly boiled and salted, those changes in the animal matter on which we are accustomed to rely for evidence of the period of death have been suspended. Still, an examination of the deep-seated parts of the flesh and of the right hip-joint, which had not been opened or disturbed until the 21st inst., has led me to the conclusion that the person of whose body these remains were a part may have been dead three or four weeks prior to that date. This would carry the probable time of death to the last week in September or to the first week in October. The period may have been shorter than this—that is, that death may have taken place more recently; but, considering that the weather during that time was mild, humid, and favourable to putrefaction, I do not think that it was longer. Had death occurred at a more remote period, I should have expected to find some visible changes indicative of putrefaction in the interior of the right hip-joint and on the deep-seated portions of flesh on the bones around the joint.

"*Conclusions.* The conclusions which I draw from this examination are—

"1. That the remains are those of a person of the male sex, of adult age, and in stature of at least five feet nine inches.

"2. That they present no physiological or pathological peculiarities by which they can be identified. The only fact observable under this head is that the portions of skin remaining are thickly covered with dark hairs on the wrist and right knee, and that the deceased was therefore probably a dark hairy man.

"3. That the remains present no mark of disease or of violent injury inflicted during life, with the exception of one stab in the space between the third and fourth ribs on the left side of the chest. This stab was in a situation to penetrate the heart and to cause death. It presents the characters of a stab inflicted on a person either living or recently dead.

"4. That these remains have not been dissected or used for the purposes of anatomy. All those parts which are useful to the anatomist have been roughly severed and destroyed by a person or persons quite ignorant of the anatomical relations of parts. They have been cut and sawn before the rigidity of death had ceased; i.e., in from eighteen to twenty-four hours after death, and in this state have been partially boiled and subsequently salted. The body of the deceased has not been laid out or attended like that of a person dying from natural causes, whose body might be lawfully used for anatomical purposes.

"5. That the person of whose body these remains are a part may have been dead for a period of three or four weeks prior to the date at which they were examined by me—namely, on the 21st of October.

"*Report on Certain Articles of Clothing found with the Remains.* On Monday, October 19th, and on Wednesday, October 21st, various articles of clothing, stated to have been found in a carpetbag with the remains, were shown to me by Superintendent Durkin, at the Bow Street Police-Station, in the presence of Mr. Painter.

"*Overcoat.*—The lining of the left sleeve in the armpit is much stained with blood. It appears to have collected there. The right sleeve is cut or torn up in its length. On the collar behind and towards the left side there is a cut or stab, as from a double-edged knife.

"*Under-coat (frock-coat).*—This is completely cut up the back from behind, and in the hollow corresponding to the left armpit there is a deep stain of blood. On the left side of the collar behind is a stab or cut, as from a double-edged knife, apparently corresponding to the cut on the collar of the overcoat.

"*Waistcoat.*—This is torn up the back. There are stains on the left side from blood (inside), apparently diffused by wetting. On the top of the collar behind there is a cut or stab as from a double-edged knife, corresponding in form and direction to the cuts in the collars of the over and under-coats. In the waistcoat this cut was found to be in its long axis five-eighths of an inch in length.

"*Trousers.*—These are torn up at the back. There is no appearance of blood inside or outside. There are some stains of dirt and other matters.

"*Shirt.*—The right sleeve is torn up. On the left side in

front there are eight cuts or stabs, corresponding in number and apparently in situation to cuts or stabs in the under-shirt. There was no appearance of blood about these cuts, either inside or outside; but the front of the shirt, at the upper part, presented a generally diffused redness, such as would be produced by blood diluted with water.

"Under-shirt (merino).—This is torn in its length at the side and behind. On the left side, and in front, there were eight cuts or stabs near to each other, leaving the long axis upwards and a little slanting. The largest of these was three-quarters of an inch in its long axis, and the smallest one and a quarter of an inch. There were no marks of blood about these cuts either inside or outside; but the shirt was much stained with blood just above them, both inside and outside, in a direction towards the left shoulder. The blood appeared diffused, as if by wetting, except under one of the buttons, where it had coagulated, as it does when it issues from the body of a living person. There was also much blood (diffused) on the wrist of the left sleeve.

"The Drawers.—These were cut up the back. There was a diffused stain of blood on the right side. In the waist, in front, there was a puncture or stab, about three-eighths of an inch in its greatest length, such as would be produced by a sword cane. This apparently corresponded to apertures in the trousers and on the shirt.

"The Socks.—One of these presented on the inside diffused marks of blood. On one there was a distinct spot of blood near the toes.

"Half of a Black Satin Necktie.—There was a slight reddish stain on the lining.

"Conclusion. The examination of these articles of clothing leads me to the conclusion that the body of the person who wore them must have been subjected to great violence. The stab penetrating from behind the double collar of the overcoat must have been inflicted with great force, as it extends through the collar of the undercoat and waistcoat. It is chiefly on the inside and on the left side, towards the left armpit, that the principal stains of blood are met with in the overcoat, undercoat, and waistcoat. The only wound found in the remains is a stab on the left side, which, by its situation, might have led to the effusion of blood. Assuming that the clothes belonged to the deceased, these facts appear to receive an explanation. The clothes have, however, been exposed to wet since they were stained with blood, and this creates a difficulty in forming an opinion. The cutting and tearing of the coat, trousers, and drawers at the back, and the cutting and tearing of the right sleeves of the overcoat, undercoat, and shirt, are consistent with the assumption that the body had become rigid after death in a distorted position, and that the clothes were violently torn from it. This position is indicated in the remains, especially on the right side by the flexed or bent condition of the hip and elbow joints. Some of the stains of blood present the appearance of having flowed from a living person, and this renders it therefore probable that the clothes were on a living body when the wounds producing such effusion of blood were inflicted. While there is nothing to prove directly that these clothes were worn by the deceased, they have, in my opinion, been worn by some one who has sustained serious personal injuries. Their condition, however, is consistent with the supposition that they were actually worn by the deceased individual with whose remains they were found.

"ALFRED S. TAYLOR, M.D., F.R.S.

"15, St. James's Terrace, Regent's Park, Oct. 3rd."

DR. WARLWORTH, the eminent ophthalmic surgeon of Brussels, and editor of the *Annales d'Oculistique*, has been nominated knight of the orders of Francis the First of Naples, and of Saints Maurice and Lazarus of Sardinia.

THE SERJEANT-SURGEONCY. We learn that Benjamin Travers, Esq., F.R.S., has just been appointed Serjeant-Surgeon to the Queen, in the vacancy occasioned by the decease of Robert Keate, Esq. It was generally expected that the honour would have been conferred on a younger member of the profession; but the public will be gratified by the selection now made.

TO CORRESPONDENTS.

ANONYMOUS CORRESPONDENTS should always enclose their names to the Editor; not for publication, but in token of good faith. No attention can be paid to communications not thus authenticated.

Members should remember that corrections for the current week's JOURNAL should not arrive later than Wednesday.

THE Report of the Birmingham and Midland Counties Branch shall appear next week.

Communications have been received from:—MR. J. S. GAMAGE; DR. DAVID NELSON; DR. HANFIELD JONES; DR. R. U. WEST; DR. RANKING; DR. COCKLE; DR. H. VERNON; MR. MICHAEL; MR. W. PARKER; DR. J. WILLIAMS; MR. STONE; MR. T. HOLMES; DR. P. H. WILLIAMS; DR. DAY; MR. J. V. SOLOMON; MR. BLOWER; MR. J. AUDLAND; MR. J. H. BROWN; DR. DRAGE; DR. J. H. STALLARD; DR. FRASER (10th Hussars); DR. E. HODGES; DR. TREFFRY; MR. PRICHARD; MR. J. C. M. THOMAS; DR. FULLER; A ROMAN CATHOLIC ASSOCIATE; DR. S. T. CHADWICK; MR. A. B. STEELE; and MR. J. K. SPENDER.

BOOKS RECEIVED.

[* An Asterisk is prefixed to the names of Members of the Association.]

1. On Plastic Operations for the Restoration of the Lower Lip, and for the Relief of several Deformities of the Face and Neck. By *Thomas P. Teale. London: Churchill. 1857.
2. A Manual of Medical Diagnosis; being an Analysis of the Signs and Symptoms of Disease. By A. W. Barclay, M.D. London: Churchill. 1857.
3. The Chemistry of Wine. By J. G. Mulder, Professor of Chemistry in the University of Utrecht. Edited by H. Bence Jones, M.D., F.R.S. London: Churchill. 1857.
4. Archives of Medicine. Edited by Lionel S. Beale, M.B., F.R.S. No. I. London: Churchill. 1857.

ADVERTISEMENTS.

Microscope. — Elementary Course

of EIGHT LECTURES on the Use of the Instrument; Examination and Preparation of Specimens, etc., on Wednesday Evenings, at Eight o'Clock, by Prof. LIONEL BEALE, M.B., F.R.S., at 27, Carey Street, Lincoln's Inn, W.C. First Lecture on November 4th. Fee, £1:11:6. A Syllabus will be sent on application.

MORITZ VON BOSE, Ph.D., Assistant.

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