tion of the pus cells and serum, on the lines of the work of Meischer and Hoppe Seyler, to determine the nature of the nucleins present in the cells, and the constituents of different samples of pus. This is as yet very incomplete. He has also examined the effect of various reagents on the mobile granules of the cells, with a view to ascertaining the action of these reagents on their motility. Dr. White also examined all cases for glycogen, which has been described by Ranvier and Salomon. The inquiry is as yet very incomplete, and the facts ascertained require further examination before they are fit for publication. He hopes to have it completed shortly.

Dr. G. WILKINSON reports that he has confined his observations up to the present to the action of pilocarpin. The rabbit was chosen as the subject of experiment, because of the fact that its blood contains a large percentage of leucocytes with well-marked granules. The pilocarpin was administered in solution by hypodermic injection, large doses being given on consecutive days so as to keep the animal more or less saturated with the drug. The duration of the experiments varied in different instances from two to fourteen days. The changes in the leucocytes which he has observed may be briefly summarised as follows: Besides the very great increase in the number of the finely granular oxyphile cells, which invariably follows the injection of pilocarpin, many of these cells exhibit distinct alterations in the character of their protoplasm, and in the degree to which they react to staining agents. The change consists principally in a disappearance of the granules, the protoplasm assuming a homogeneous and more or less hyaline character. Others, again, present a curious pitted or reticulate appearance. At the same time, the reaction of the leucocytes to staining agents is diminished, sometimes to such an extent that they look like mere phantoms. On the other hand, the coarsely granular eosinophile cells show no change, either in structure or in staining reaction.

RESEARCH SCHOLARS.

Dr. J. B. LEATHES has been engaged in a research into the nature of mucin-like proteids contained in ovarian cysts. It has long been known that these cysts contain proteids (metalbumin and paralbumin), which, like mucin, reduce Fehling's solution if they have previously been boiled with mineral acids; this property is now known to be due to pseudomucin, which is common to metalbumin and paralbumin; but another proteid, paramucin, has been found, which differs from pseudomucin in the property, amongst others, of reducing without previous treatment with acids. No attempts hitherto have succeeded in isolating or determining the nature of the group in the mucin molecule to which the reducing properties are due, but it has been commonly assumed to be a sugar. In any case, it would be an important addition to our knowledge of the pathology of ovarian disease, and of the chemical relation of carbohydrates to proteids. The important protection against putrefactive action afforded by mucin to all mucous membranes of the body must be due to the prosthetic group in the molecule. Some of the specimens of paramucin with which he has been working, and which resist simple putrefaction for months, have a reducing power equivalent to 12 per cent. of their weight of glucose. Dr. Leathes's researches are divided into two groups: (1) Attempts to determine the products of the action of boiling saturated hydrochloric acid; from these, amongst other results, he has succeeded in obtaining an osazone which crystallises typically and melts at 186° C., the same melting point as that of an osazone prepared from bronchitic mucin. This, therefore, proves the presence of a sugar group. (2) Attempts to split off from the complex proteid molecule a substance, as little altered as possible, which would enable him to determine the chemical relation of the carbohydrate moiety to the albumen moiety. After trying various methods he found the best results from artificial gastric digestion. This gives peptones and albumoses and a compound, which can be separated as a copper sodium salt in a state of purity, and which reduces Fehling's solution strongly. By this method he will soon have enough of this interesting substance for analyses and a determination of its structural composition. Attention may be drawn to an analogy with chondroitin, the specific chemical component of cartilage, the close relation of which to carbohydrates was made out by Schmiedeberg six years

ago, an analogy which is borne out by the fact that in paramucin, too, the reducing substance is paired with sulphuric acid, as in chondroitin sulphuric acid; about one-fourth of the sulphur of paramucin is separable as sulphuric acid by the action of acids according to his determinations. Further details and other facts which he has made out, but not yet brought into relation with the main points alluded to above, he will reserve for communication when his work is further advanced.

Dr. J. S. RISIEN RUSSELL reports that the results of the investigation of the cervical nerve roots in relation to the subject of wry-neck will be published in the next number of *Brain*, as it was impossible for the Editor to find room for the paper in the *JOURNAL*; an abstract will, however, appear in the *JOURNAL* about the time when the full paper is published. The research into the origin and destination of some of the afferent and efferent tracts of the medulla oblongata, which was in progress when he last reported to the Scientific Grants Committee, has been completed, and the results embodied in a paper read before the Royal Society, but not yet published. A short abstract of this paper has already appeared in the *JOURNAL*. The problems that are now engaging Dr. Russell's attention are: (1) The effects of destruction of the inferior olive; (2) the division of a series of nerve roots followed by an attempt to obtain union between the proximal end of one divided root with the distal end of another, so as to bring the anterior horn cells of one segment of the spinal cord, which were formerly connected with one group of muscles, in relation with an entirely different group, in order to determine whether voluntary movement of a limb is possible under such circumstances, and if so, what kind of voluntary movement results.

Dr. SWALE VINCENT reports that his previous researches on the comparative anatomy and histology of the suprarenal capsules, 1, 2, 3, 4, have been followed by an investigation upon the comparative physiology of these organs. He has tested the effects of extract of fishes' suprarenals upon the arterial system of amphibians and mammals. The conclusions arrived at are as follows: 1. The suprarenal capsule of the mammalia corresponds to two distinct glands in elasmobranch fishes. 2. In teleostean fishes the medullary gland appears to be absent, the suprarenal bodies in this order consisting entirely of "cortex." 3. The same is probably true of ganoids. Thus it appears from these researches that two primary groups of the class *pisces* (teleosts and ganoids) embracing the great majority of species of fishes, have no "medulla," but only "cortex," so that a large group of vertebrates seems to be able to dispense with an organ which is of vital importance to mammals. It may be after all that the cortex is the more important and essential constituent of the gland, although everything we know about the functions of the capsule at present applies only to the medulla. These results are published in a fuller form in the *Anatomischer Anzeiger*, xiii Bd., Nos. 1 and 2, 1897; *Proc. Roy. Soc.*, vol. lxi, No. 370, April 14th, 1897; *Proc. Physiol. Soc.*, March 20th, 1897; *Journ. of Phys.*, vol. xxi, Nos. 4 and 5, May 12th, 1897, p. xxi. Dr. Swale Vincent gives the following references to previous papers: (1) *Proc. Birm. Nat. Hist. and Phil. Soc.*, 1896, vol. x, part 1, p. 1. (2) *Trans. Zool. Soc.*, vol. xiv, part 3, No. 1, April, 1897. (3) *Birm. Med. Rev.*, August, 1896. (4) *Anat. Anz.*, Bd. xii, Nos. 9 and 10, 1896.

ROBERT SAUNDY, M.D., Chairman.

REPORT OF INEBRIATES LEGISLATION COMMITTEE.

YOUR Committee regrets to have to report that the Government has as yet been unable to carry out its intention to introduce a Bill into Parliament providing for amendments in the existing Inebriates Acts.

The Prime Minister (the Marquis of Salisbury), and the Home Secretary (Sir M. W. Ridley), in response to communications from the Chairman of the Committee, have both stated that it is the design of the Government, if time permit, to introduce a Bill into Parliament this session for amended legislation for inebriates. Seeing how remarkably strong and widespread is public opinion in favour of such a step, there

can be little doubt that a measure of the kind would be heartily welcomed, and would meet with great support.

Your Committee trusts that the session will not terminate before the introduction of the promised Bill.

Such a Bill should include:

1. The compulsory therapeutic detention of habitual drunkards, after a judicial process, on sworn medical testimony, and with every possible safeguarding of the liberty of the subject.

2. The establishment and management of special homes for inebriates for the poorest, for criminal and non-criminal inebriate offenders.

3. The inclusion of intoxication by any narcotic in the term "habitual drunkenness."

4. The appearance of voluntary applicants for curative detention before one justice instead of two justices as at present, or before some other authorised official.

5. Magisterial discretion to award a term of curative restraint in a reformatory or hospital, instead of a term of imprisonment in a gaol.

It would also be desirable to have all habitual drunkards under curative treatment subject to State or municipal inspection.

The Committee is glad to learn that in Austria, while the authorities are considering the project of special legislation for inebriates, one clinic has been set apart specially for the treatment of habitual drunkards.

The Committee has to thank Sir Charles Cameron, Bart., M.P., Dr. Farquharson, M.P., and Mr. Lees Knowles, M.P., for excellent parliamentary services. The reports of the Massachusetts State Hospital for Inebriates have been specially valuable.

The Committee recommends its re-election as follows: The President and President-elect, *ex-officio*, the President of Council, Mr. D. B. Balding, J.P., F.R.C.S.; Dr. R. Welsh Branthwaite, Dr. T. Bridgwater, J.P.; Sir Charles Cameron, Bart., M.D., M.P.; Dr. C. R. Drysdale, Mr. Geo. Eastes, Dr. J. W. Eastwood, J.P.; Dr. R. Farquharson, M.P.; Dr. W. T. Gairdner, F.R.S.; Dr. J. Hill Gibson, Dr. A. Grant, Mr. F. J. Gray, Dr. C. J. Hare, Dr. Arthur Jamison, Mr. H. R. Ker, Dr. Norman Kerr, Dr. Longhurst, Mr. R. H. Nicholson, Surgeon-Major G. K. Poole, M.D.; Brigade-Surgeon-Lieutenant-Colonel R. Pringle, M.D.; Fleet-Surgeon Geo. Robertson, M.D.; Dr. Jas. Stewart, Dr. Geo. Danford Thomas (coroner), Dr. Wynn Westcott (coroner), and Dr. H. W. Williams.

NORMAN KERR, M.D., Chairman.

REPORT OF THE SUBCOMMITTEE OF THE MEDICAL CHARITIES COMMITTEE.

YOUR Committee beg to report that as they had shortly before the last annual meeting communicated with the authorities of the chief metropolitan medical charities or personally interviewed them in regard to the reforms suggested as necessary to the better administration of the out-patient departments of hospitals, it has not been deemed necessary during the past year to take any further steps in the same direction.

Your Committee are, however, confident that the work done since the Medical Charities Committee was first constituted in 1891 has been, and still continues to be, productive of good results. The publication of the exhaustive reports of our Subcommittees and the promulgation of the recommendations of the Association have directed public attention to the subject, and, we believe, stimulated others outside the profession to action on similar lines, and we may hope that their efforts will have considerable influence in assisting to bring about the object we all desire, namely, a more satisfactory administration of our medical charities. It is most gratifying to observe that during the last few months the question of hospital reform has been much discussed both in the London and the provincial newspapers, and that the public now generally recognise the fact that reform of the out-patient departments of our medical charities to more effectually check abuse is absolutely necessary.

It is especially satisfactory to find that the Charity Organisation Society has taken up this subject, and has formed a strong Committee, consisting of leading members of the medical profession as well as influential representatives of

the general public interested in medical charities to endeavour to effect the reforms aimed at by our Association. This Committee have adopted a petition to H.R.H. the Prince of Wales, asking for the formation of a Central Hospital Board to administer the Hospital Fund founded in commemoration of the Diamond Jubilee of Her Majesty the Queen.

Your Committee believe that such a Board would be of the greatest service in bringing about hospital reform, and suggest that the opinion of the members of the Association should be taken at the forthcoming annual meeting of the Association as to the desirability of supporting the action of the Charity Organisation Society, by passing a resolution to be forwarded to H.R.H. the Prince of Wales, expressing approval of the suggested Board as a guarantee to the benevolent public that the administration of our medical charities has been placed on a sound basis.

During the past year the efforts of your Committee have been supplemented by the recently-formed Hospital Reform Association, of which Dr. Ward Cousins, our late President of the Council, is President. The investigations of this new organisation confirm in their entirety the reports of our Subcommittees, and although its chief recommendations are identical with those suggested in the report of our Subcommittee dated April 6th, 1892, and which have been repeatedly laid before the managers of the various metropolitan medical charities, the fact that the Hospital Reform Association consists of members of the general public as well as medical men renders it probable that the conclusions of the new organisation may have some weight with persons who would not be influenced by the opinions and suggestions of an association wholly composed of members of the medical profession.

Your Committee suggest that they be authorised to take such action as may be necessary either alone or in combination with the Charity Organisation Society to promote the formation of a Central Hospital Board.

THOMAS BRIDGWATER, Chairman.

REPORT OF COMMITTEE ON THE MENTAL AND PHYSICAL CONDITIONS OF CHILDREN.

YOUR Committee on their reappointment continued the study of the conditions of childhood in conjunction with the Committee appointed by the Congress of Hygiene and Demography. Last year we referred to the Report¹ on 100,000 children seen in schools 1888-94 as published by the help of your liberality; that report has been circulated, and forms a basis of facts that has been appreciated by many engaged in advancing the welfare of children, especially those less favoured in mental and physical development. The report, or census of childhood, has been used in Governmental inquiries by Committees of the Local Government Board, the Home Office, and the present Departmental Committee of the Education Department on Defective Children; extended evidence from these researches was given to each by Dr. Francis Warner at the request of the Committee.

During the past year it was decided that it was desirable to found a society to continue the work initiated by the Council of the British Medical Association in 1888, the usefulness of which has been established; this has been effected under the title of the Childhood Society, for the scientific study of the mental and physical conditions of children. Lord Egerton of Tatton is the President, and Sir Douglas Galton, F.R.S., is Chairman. This Society proposes to continue scientific inquiry and research, and to report on schools and institutions as well as to give evidence or advice on questions concerning educational methods as far as they relate to mental and physical conditions of childhood, especially the training of feeble-minded children.

Lectures by members of the Society and others have been delivered during this year on the scientific and educational aspects of child life followed by useful discussions.

The work conducted by your Committee for a period of nine years has been followed by efforts for the benefit of children

¹ Report on the Scientific Study of the Mental and Physical Conditions of Childhood, with particular reference to children of defective constitutions, and with recommendations as to education and training.—Published at Parkes Museum, Margaret Street, London.