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A POOR LAW BILL AND A CIRCULAR.

THE Prevention of Destitution Bill, for which Sir Robert Price drew first place in the ballot at the beginning of the session, has been put down for second reading on April 8th, when a debate will be raised which it is anticipated may disclose the views of the Government and of the leaders of the Opposition with regard to the proposals of the minority of the Royal Commission on the Poor Laws and Relief of Distress. The bill "to provide for the more effectual prevention of destitution and the better organization of public assistance" was issued last week; it is a very voluminous document, containing ninety-five clauses and seven schedules; an analysis of its provisions, together with the text of those clauses which directly touch medical questions, will be found in the SUPPLEMENT (p. 121). It is well drawn, covers very completely the ground it is intended to plough up in England, Wales, and Scotland, and is avowedly the bill of the minority of the Royal Commission. It is probably put forward now not because its promoters have any lively expectation that it will be carried, but as a feeler to ascertain how far and from what quarters the National Committee for the Break-up of the Poor Laws may count on support in its crusade.

The revolutionary character of the bill may be partly gathered from the fact that it proposes to repeal wholly or in part no fewer than seventy-nine Acts of Parliament, while the powers conferred by several score other Acts are to be transferred to other authorities. In its main lines it follows the recommendations of the Minority Report, notably in abolishing boards of guardians and dividing their work for the non-able-bodied among four committees of county and county borough councils, while the able-bodied are transferred to the department of a new Minister for Labour. There is a somewhat important modification of the Minority recommendation in the provisions of the bill dealing with the Registrar of Public Assistance, to whom the Minority Report proposed to give very autocratic powers of revising the decisions of the four committees. The Health Committee, for instance, after making investigations and deciding that an individual should have outdoor medical assistance, might have found its decision overruled by this single permanent official. It would seem to have been recognized that this was an impossible position in which to place any committee, for the right of appeal which the committee would have had against the decision of the registrar made the matter little better. We have several times laid stress on this point, but the justice of the objection has been repeatedly denied by supporters of the Minority Report. In the bill, however, an attempt is made to meet this objection—rather half-heartedly, it is true—by a provision that recommendations for outdoor relief "shall be referred" to such committee of the council, not being one of the four committees dealing with assistance, as the council may determine, and the council "may appoint" a special committee for the purpose, called the Public Assistance Co-ordination Committee.

It is still provided that the registrar should have very extensive powers, but they would not be so autocratic as those suggested by the Minority Report. The fact nevertheless remains that no question is more frequently a matter of dispute than whether a particular person shall receive outdoor or institutional relief, and in the future painted by the bill it would undoubtedly be quite a common thing for the Education and Health Committees to find the Co-ordination Committee refusing to grant them the certificates for home relief which they desire, and the dispute would have to be settled by the whole council. All this procedure is simply an attempt to get out of a self-created difficulty; the work of relief is first split up among four committees, which of itself creates more overlapping than exists at present, and to remedy this another special committee has to be appointed. In this way the possibility of serious disputes between the five committees would certainly be introduced, and the council would have finally to be called in to settle differences which would never have arisen if relief had been in the hands of one authority from the first.

There are numerous indications throughout the bill that it is only intended as a first instalment, leading up to a still greater extension of the scope of public assistance. In addition to providing assistance for the destitute, it provides that the councils shall "take such steps as seem to them desirable, within the powers conferred upon them by Parliament, as far as possible to prevent or arrest the operation of the causes of destitution." Even the causes of unemployment are specially mentioned, and "any other cause of destitution" must be dealt with by the councils. This opens out a field of work practically illimitable. For instance, the Minority Report mentions among the causes of destitution boy and girl labour, and recommends that boys and girls up to the age of 18 shall not be allowed to work over thirty hours a week—that is, half time—and shall be obliged to attend, between the ages of 15 and 18, schools for physical and technological training, such training being "provided by the community itself." Now the bill defines a "child of school age" as "a person under 18 years of age attending or being, under any statute or by-law for the time being in force, liable to attend at a school or other educational institution." This means free education up to the age of 18, not only for the destitute, but for all persons; the want of such education is held by the Minority to be a "cause of destitution," which the council has to deal with.

Again, the Minority Report, in dealing with old age pensions, says that "it will be requisite at the earliest possible date to lower the pensionable age to 65, if not to 60." It is, however, unlikely that this will be done by any amendment of the Old Age Pensions Act for many years to come, if ever; the bill gets over this obstacle by providing, not only for the reduction of the pensionable age, but that a still greater extension of pensions may be brought about out of the local rates for "persons not entitled to pensions under the Old Age Pensions Act of 1908." This would amount, we venture to submit, to the establishment of invalidity pensions wholly out of the rates, though Germany and other Continental countries are content with a State subsidy, and demand that workers should themselves contribute towards an insurance premium for invalidity pensions. It is no wonder that the Minority in its report objected to all insurance schemes for sickness and invalidity pensions, if it intended to provide them

free; the idea of encouraging thrift and self-providence, as under the German scheme, is entirely absent from the bill in this connexion.

In addition to all the other duties with which Health Committees are endowed, they would be required to provide general relief, food, clothing, and lodging for infants below school age; for the sick and infirm and the aged in institutions; to deal with all the infinite number of causes that lead to destitution among these classes, and to provide medical assistance for all classes; in the fourth schedule of the bill is given a list of about forty Acts of Parliament which the Health Committee would have to administer. In every sense of the word it would be a destitution authority for certain classes. A novel provision of the bill which might sometimes prove useful is that the Health Committee would be expected to spend each year at least a certain amount of money, termed the "National minimum of health expenditure," to be determined by the Local Government Board for the whole country as being "the least sum at which under the most favourable circumstances a council can possibly discharge efficiently the duties laid upon them." Parliament is asked to set aside a sum not exceeding £4,000,000 a year for the first seven years, out of which grants would be made for Health Committees, but no grant would be made to any council that had not by its health department spent an amount equal to the national minimum of health expenditure. In addition, the Local Government Board would be empowered to fix a "standard average health-rate," and if the expenses of any Health Committee should not be met by the levy of a rate equal to this standard, the Exchequer would contribute the deficiency. This is called the "primary health grant," and after all primary grants needed by councils had been given, the surplus of the four millions sterling would be used for secondary grants to councils that had received no primary grants. The object of all this, according to a sketch of the bill for which we have to thank Mrs. Sidney Webb, is "to enable even the poorest local body to bring its administration up to the prescribed minimum standard without incurring more than the average rate, and so as to encourage and assist the more energetic councils to be continually increasing the efficiency of their service without undue burden on the ratepayers." It is very doubtful whether the sum of £4,000,000 would go far towards providing for the extra training of children under the proposed new definition of "school age," for the local pensions, for the whole medical service, and all the work entailed in preventing the causes of destitution, but the plan is ingeniously contrived to lull the fears of the ratepayers.

The scheme contained in the bill for unemployment insurance, with a State subsidy to trades unions, would not be compulsory; it does not include unemployment caused by sickness and invalidity, but only that arising from slackness of trade, and, with this single exception, there is not the least attempt to encourage self-providence. On the contrary, the recovery by the registrar of the cost of medical treatment would involve no inquiry before treatment was given, though the experience of every medical man as well as the experience of public authorities in the past shows that inquiry after treatment is often a farce, attempts to recover being generally not worth the trouble and legal costs. The bill, in short, proposes an enormous extension of public medical assistance, not only to the destitute, but to all

persons who may, by any stretch of imagination, be thought to be in danger of becoming destitute in the future, from any cause whatever, including even their own thriftlessness. Far more reasonable are the recommendations of the Special Poor Law Committee of the British Medical Association, which deal separately with every class of the non-able-bodied, and suggest that certain classes should have free medical aid in the interests of the community; that for other classes, not needing instant and immediate relief, there should be inquiry before relief, to determine whether relief at the public cost should be refused altogether; and for others, where immediate treatment is urgent, inquiry after treatment, with recovery of cost where possible.

The Local Government Board Circular to Boards of Guardians, the tenor of which is fully stated in the SUPPLEMENT (p. 123), stands out in strong contrast to the Minority Report bill. The circular rightly says that a person may be destitute, not in the sense that he is entirely devoid of the means of subsistence, but that he is unable to provide a particular form of medical attendance or treatment of which he is in urgent need. It points out also that it is not in the interests of the community that such relief should be given as discourages the recipient from striving to regain his independence, or induces others to relax their efforts to maintain their independence. The guardians are reminded, as the Minority Commissioners might well be reminded, that the rates are raised compulsorily, and not by voluntary contribution, and that the authorities are therefore not in a position to dispense charity at will. It is also pointed out that outdoor relief must be adequate to meet the need, but there must be a close and careful supervision of all outdoor cases, full regard being paid to sanitary conditions and close co-operation with the sanitary authorities. Relieving officers are to be sufficient in number and chosen for their experience, and the case-paper system and the general abolition of pay stations are strongly recommended. Co-operation with charitable associations is specially urged on the lines of Mr. Goschen's Minute of 1869. The guardians are also urged to avoid all action which might discourage self-providence against sickness, and the Board promises to give its support to any proposals intended to secure efficient co-operation between charity and the Poor Law.

In short the circular is intended to show that essential reforms may be attained by existing machinery without the revolutionary methods of the Minority Report bill. The bill is the bill of a party that speaks with some disdain of the "irresponsible committees of benevolent amateurs" of the Majority scheme; the circular promises active support to all schemes of co-operation with charitable associations. The bill would finally destroy the guardians, its supporters having already damned them with faint praise, and would set up in their place an intricate and untried machinery including four local destitution committees with a fifth committee to keep them in order, and a new Minister for Labour with six new Government departments under him. The circular admits the faults of the guardians, but suggests feasible methods for reform and the improvement of their work. The bill seems to blame environment for everything, but neglects personal thriftlessness; the circular, while helping all the destitute, would discourage parasites on society. The bill is a brand-new scheme for a completely new engine; while the circular speeds up a working machine.

THE SENSORY PRODROMES OF EPILEPSY.

THE first three numbers of *Epilepsia*, an international quarterly review whose appearance has been already noticed, contain three contributions by Dr. L. J. J. Muskens, of Amsterdam, upon the prodromes, and especially upon the sensory prodromes, of epilepsy: References to Dr. Muskens's observations are to be found in recent works on epilepsy, but, inasmuch as these appear now to have been confirmed by other investigators, and because the phenomena he describes may prove to be, not only of diagnostic importance, but may also, as he maintains, afford valuable indications for treatment, it may be well to give a brief account of the main facts.

In 1902 Dr. Muskens published a paper on the segmental disturbances of sensation in tabetics and epileptics¹ which contained the results of investigations which had extended over five years. He showed, first, that in tabetics—even, in some cases, long before any other signs had shown themselves—a diminished or delayed pain sensibility was present over certain cutaneous areas, most commonly those served by the first, second, third, and fourth dorsal, and in the lower extremities by the fifth lumbar and first sacral nerves; and, secondly, that in epileptics a varying degree of analgesia, ranging from slight hypalgesia to complete analgesia, was to be found over these same areas for some hours or days immediately preceding the attacks, and disappearing, or being replaced by the opposite condition of hyperalgesia over the same areas, immediately after the attacks. Another point which he mentioned in that article, and to which he again refers in his more recent contributions, was that the limiting lines of contiguous skin areas supplied by segments which are not contiguous in the spinal cord—the “mesial lines” of Sherrington—retain a certain amount of sensibility even during complete analgesia of the rest of the body, and that after an epileptic attack these lines were the first to become sensible to pain. Lastly, and to complete this account of the author's original statement, he showed that in tabes dorsalis and in epilepsy there were certain areas which remained unaffected during a general analgesia—namely, the periorcular field corresponding to the upper part of the area supplied by the second division of the trigeminus; an area including the ball of the thumb and extending to the styloid process of the radius; and a corresponding area on the sole of the foot.

It would take us altogether too far to follow Dr. Muskens in his discussion of the bearing of these pre-epileptic sensory phenomena upon the mechanism of convulsive seizures and the question of the cortical representation of skin areas—a belief for which Dr. Muskens claims support from recent anatomical researches by Benedict, Straüssler, Balint, Russel and Horsley, and Mills and Weissenburg. It need only be mentioned in passing that these analgesic areas have been found to be present as constant permanent features in diabetes and severe anaemia as well as in metasyphilitic diseases, and as chronic but removable features in alcoholic neuritis. We are here only concerned with the empiric fact of their frequent and fluctuating appearance in epilepsy. With regard to their frequency, Dr. Muskens himself found sensory prodromes of all kinds, including the epileptic headache, in only 44 per cent. of his cases during the four

years 1903–1906. Drs. Maes and Claude,² however, as the result of a careful systematic examination of an unselected group of epileptics, found the prodromal disturbances of sensation in no less than 80 per cent. of their cases, and there seems to be no doubt that Dr. Muskens was justified in his first contention that post-axial segmental analgesia is a much more common prodromal occurrence than is generally supposed.

Early in his investigations of these phenomena Dr. Muskens was struck by the fact that wherever these disturbances of sensibility were absent, other prodromal symptoms—motor, vasomotor, or somatic—were present, and this fact became of first importance from the point of view of treatment; for, though he does not explicitly state that he considers the several prodromes to be interchangeable, this fact led to the attempt to promote the epileptic discharge along some other track than that of a convulsive attack. The results of treatment with this view have, he says, been entirely successful, the means adopted being the administration of extra doses of the bromides on the first appearance of the sensory prodromes, rest in bed, and drastic evacuation of the intestines. The result of this treatment has always been to diminish the extent of the sensory disturbances and to lessen the proneness to the attacks, a sudden evacuation of the bowel, even where there was no constipation, being regarded by Dr. Muskens as a specific means of bringing about a harmless discharge. These observations have been confirmed by Maes and Claude.

Dr. Muskens claims for these sensory disturbances a definite diagnostic as well as therapeutic value. The fact that in a general epileptic analgesia the sensibility of the periorcular and certain other cutaneous areas remains intact sharply distinguishes these from hysterical anaesthesias. He, indeed, goes still further, and contends that only such sudden and pathological phenomena are truly epileptic discharges as cause the segmental disturbances of sensation to disappear. This is true, he says, of major epileptic attacks, of series of motor fits, and of convulsions without loss of consciousness, but it does not hold good for *petit mal* and psychical disturbances. Dr. Muskens therefore considers that the clinical significance of these latter disturbances is entirely different from that of motor discharges, an opinion to which the usual inefficacy of bromide treatment in *petit mal* and psychical disorders lends support.

It remains to be seen to what extent the observations of Muskens, Maes, and Claude will be confirmed by other investigators; but if it be proved that it is possible to foretell by some days the occurrence of convulsive seizures in the subjects of major epilepsy, to mitigate or even avert these attacks, and to vary the treatment according to the indications afforded by these sensory prodromes in such a way as to avoid the unpleasant effects—as, for example, bromide acne—of drug treatment, it is evident that we have here a fact of considerable therapeutic importance.

THE DEFINITION OF AN ACCIDENT.

A DECISION of far-reaching importance was given by the House of Lords on March 14th, the decision being arrived at by a majority of three to two. A report of the judgements will be found at p. 787. A man was employed in screwing bolts to make a condenser bath. While so engaged he fell dead. On *post-mortem*

¹ Studien über segmentale Schmerzgefühlsstörungen an Tabetischen und Epileptischen. By L. J. J. Muskens. *Arch. f. Psychiat.*, Bd. 36 Hft. 2. 1902.

² D. Maes and H. Claude. *Annales d'Electrobiologie*. 1907. (F.4.5.)

examination it was found that he had suffered from a large aneurysm of the aorta, and that death resulted from its rupture. It was stated that the aneurysm was so far advanced that it might have burst during sleep, and under any trifling exertion was likely to do so. That the man died from injury was clear, and he was engaged in his employment when it happened. Was it an "accident arising out of his employment"? The county court judge and the Court of Appeal decided that it was. This decision was appealed to the House of Lords. The Lord Chancellor and the majority have held that there was evidence to justify the finding given in the lower courts. What occurred was fortuitous and unexpected so far as the workman was concerned, although to one knowing all the conditions it was a likely result of his engaging in work. The dissenting judges held that if the external conditions which surround and the external influences which act upon a workman at the time of an injury are normal, if it is not shown that anything unlooked-for occurred in relation to the work, and if the physical state of the workman is such that those acquainted with it and capable of judging would regard such an injury as the likely result of his engaging in the work, then it cannot be said that there is evidence to justify a finding that the injury is due to "accident arising out of the employment."

Most medical men would consider that a man suffering from an aortic aneurysm should not have been employed in any work, however light, which would entail the slightest strain or exertion. But the man was unaware that he was suffering from a disease which at any time might prove fatal, whether he was at work or at rest. In these circumstances the finding of the majority appears justifiable, although it may involve consequences which the Legislature did not foresee or intend when the Act was passed. In any case the decision is now binding, and will probably have very important effects on the relations between employers and employees. Employers of labour may find themselves compelled to discharge, or refuse employment to men who are suffering from ailments which may appear to be trifling, but which, by the nature of the employment, render them liable to accident in the course of the employment as now defined within the meaning of the Act. As Lord Shaw, one of the dissenting judges, said, the decision arrived at by the majority adds a new peril to those workmen who, notwithstanding debility and chronic disease, are anxious and willing to work in order to gain a livelihood, but are unable on this account to obtain employment.

The decision may not affect the insurance companies very materially; they will simply increase their premiums. But to hold an employer responsible in the circumstances above stated seems to make the preliminary medical examination of workmen a virtual necessity. It is pointed out by a member of Lloyd's in the *Times* of March 18th that already one of the largest insurance agents of Lloyd's has suggested that two rates shall be quoted to employers—one for cases in which the men are all medically examined and the weak ones rejected, and another rate considerably higher where no such examination takes place. What employer will take a weak man into his service if he can get a strong man for the same wages?

These be some of the consequences of the Workmen's Compensation Act to which its early supporters persistently shut their eyes.

THE PRESIDENT OF THE ROYAL COLLEGE OF PHYSICIANS OF LONDON.

THE presidency of the Royal College of Physicians of London is an annual office, the statute providing that the election shall take place on the day after Palm Sunday. It has always been customary, however, to re-elect the president for several years in succession, the usual period being five years. It therefore excited no surprise when Sir Richard Douglas Powell, who has held office since 1905, intimated his desire not to be re-elected. Any Fellow of ten years' standing is eligible for election to the presidency; no nominations are made, but each Fellow present writes down and places in the urn the name of the Fellow for whom he votes. If the name of one Fellow be thus placed in the urn by two-thirds of the Fellows present he is elected, but on the occasion of the election of a new president this seldom occurs, and the two names having the highest numbers are then balloted for, an absolute majority deciding. On the present occasion a far larger number of votes were cast at the first ballot for Sir Thomas Barlow than for any other Fellow, and at the second ballot he was elected by a very large majority. In a few well-chosen words he thanked the College for the honour it had done him, and promised to give his best services to the maintenance of its honour and dignity and to the advancement of the great interests confided to it in the body politic. We venture to express the confident belief that this promise will be fulfilled, for Sir Thomas Barlow adds to a loyal affection for his College a broad outlook on public affairs and a high ideal of the part the medical profession can and ought to play in them, which will ensure that so far as his influence extends—and by his election it is of necessity much increased—it shall be worthy of its great traditions. He takes office at a critical moment, when on two great questions the profession needs statesmanlike guidance. The one is the relation in which the Royal Colleges and the teaching institutions of London should stand towards the University of London with a view of improving the opportunities for education and research in the metropolis, and of placing within the reach of medical students educated there a degree in medicine. The other is the vast problem of Poor Law reform—the reorganization of the system of preventing disease, and of giving medical relief to the sick and aged. To both questions Sir Thomas Barlow has already given much attention. Thus he brings to the discharge of the duties of his high office the prestige of a great scientific reputation, combined with a knowledge of affairs and practical sympathy with movements for the welfare of the people.

AN EXPERIMENT IN VENTILATION.

THE REPORT for 1909 of that excellent institution, the Yarrow Home for Convalescent Children of the Better Class at Broadstairs, contains a note on a series of experiments in connexion with the heating and ventilation of the home, which is at once a proof of the close interest which the founder, Mr. Yarrow, continues to take in every detail, and an interesting and even amusing contribution to the great and perplexing question of the ventilation of rooms and wards. It appears that when the home was erected a somewhat elaborate system of heating and ventilation was introduced, of a type very familiar in hospitals and public institutions. The idea was to warm the air by bringing it in from outside over numerous radiators, and to extract it by horizontal air ducts in the ceilings of the rooms, communicating

at each end of the building with tall ventilating upcast air shafts. The ventilation did not prove satisfactory, and among other evidences of its defective nature was the occurrence of small epidemics of sore throat; it was established that in some instances the sore throats did not spread from person to person, but broke out in different wards whose inmates had not been in contact. Attention was first directed to the radiators, and it was found that they very soon became covered with dust brought by the in-coming air; as in so many other establishments, some of these radiators were fixed in positions which made it impossible to clean them efficiently, or their design was such that it was impossible to get brushes between the heating tubes. Mr. Yarrow came to the conclusion that a good radiator should be of such a design and so placed that it could be cleaned and dusted daily with facility, and further, that it should consist of polished tubes, rendering any deposit of dust easily visible, and stimulating servants, if they took any pride in their work, to keep the polished surfaces in creditable condition. Instead of introducing new radiators, however, the inlets were closed so that the stream of dust-laden air no longer passed over them. Attention was then turned to the extraction system, and it was found that the difference of temperature between the air in the air ducts and outside the building was so small that the current was sluggish, and consequently easily reversed. Mr. John Sampson, a member of the committee of management, showed by experiment that wind striking the building on one side had a tendency to increase the pressure of air in the rooms on that side, and to diminish the pressure in the rooms on the opposite side, with the result that in these latter rooms there was a tendency for the system of ventilation to be upset, causing the passages intended as upcasts to act as downcasts. It was found that when there was no wind the ventilation acted perfectly and as was intended, but when even a slight wind arose, and at Broadstairs the atmosphere is seldom still, the air, instead of passing away through the extraction passages, was drawn down, owing to the reduced air pressure, into the rooms on the sides of the building opposite to the direction in which the wind was blowing. The air ducts and shafts could not be cleaned, and were known to be full of dust, which was suspected to be full of objectionable organisms. Under the supervision of Dr. Bertram Dawson, honorary physician, and of Dr. E. G. Moon, one of the medical officers at Broadstairs, some interesting bacteriological experiments were carried out by Dr. Adler. Two plates were exposed for five minutes beneath the air-shaft in the ceiling of one of the wards, the medium on the one being placed so that it looked upwards towards the opening, and the medium on the other so that it looked downwards towards the floor. Plates were also exposed within the air-shafts and on the beds in the ward. The plates within the air-shaft, and the plate immediately beneath it, the culture medium on which looked upwards, both showed a rich growth of organisms, whereas the plate under the air-shaft, the medium on which looked downwards, was comparatively free. The plates upon the beds showed only a few colonies. Among the rich groups of organisms found on the plates near the air-shaft were many pathogenic varieties, including staphylococci and the *Micrococcus catarrhalis*, whereas on the plates remote from the air-shaft the pathogenic organisms were exceedingly few. The fact that the plate near the air-shaft which looked upwards was richly covered with organisms, whereas the plate which looked downwards showed very few, proved that the air was travelling into the room through

the so-called outlet, and this conclusion was confirmed by the fact that the plates inside the shaft contained the same varieties of organisms as the plate immediately beneath the opening. The experiment was repeated in another ward after the air-shaft in the ceiling had been blocked up, and the plates in every instance showed only a feeble growth of micro-organisms: it was clear that the air in the ward was a great deal purer when the so-called ventilating outlet in the ceiling was blocked up. A further objection to the system was found in the fact that the various extracting shafts were in close juxtaposition, so that when a down-draught occurred the air of one ward could be carried into another. The ventilating openings in the ceilings were accordingly closed, the beds were removed from the sides of the dormitories and placed in the centre, and all the windows were always kept slightly open, so that the ventilation of each dormitory depended entirely upon the passage of air across the rooms entering on the side on which the wind blew and finding exit on the opposite side. It was considered that this would be both a simple and efficient means of continuously changing the air, for, at Broadstairs at any rate, there is nearly always more or less breeze. Since these reforms there has been a very appreciable reduction in the number of sore throats, and of the few cases which have occurred, all have been in children with adenoids and enlarged tonsils, or in others who had suffered from repeated sore throats at home. One case of measles and two of chicken-pox occurred, but there was no spread of infection as had been formerly experienced. The medical report concludes by stating that the investigation shows once more that all air-shafts are dangerous unless they are so big and so situated that they can be easily and regularly flushed with water. Unless this can be done the air-shafts collect more and more dust, and the air which passes along them into the ward or room become increasingly dust-laden, and therefore microbe-laden.

THE ASEPTICITY OF BREAD.

IN a recent annotation urging the advantage of machine-made bread,¹ the conclusions of the report of M. Laveran on the question of the possibility of bread containing live tubercle bacilli derived from consumptive workmen were quoted and the reassuring effect of his conclusions noted. These were based upon the work of Dr. Auché of Bordeaux, who had incorporated tuberculous sputa in the dough of loaves of different size, and found that in every instance the bacilli had lost their virulence after baking. Dr. Auché has now extended his observations to other microbes, and has communicated his results to the Biological Society of Bordeaux.² He has experimented by introducing into the dough active cultures in bouillon of the *B. typhosus*, *B. paratyphosus*, *B. dysentericus* (Shiga), *B. dysentericus* (Flexner), *B. coli*, *Streptococcus pyogenes*, *Staphylococcus aureus*, and a variety of *proteus*. In all these cases the results were negative—that is to say, culture media sown with fragments of the bread taken from the parts inoculated (indicated by the litmus stain with which each of the cultures had been tinted) remained sterile, a result which was proved not to be due to any reaction of the media modified by the acidity of the bread, as when sown with pure cultures all the tubes grew abundantly, and in fact the reaction of the bouillon remained slightly alkaline. He thinks it possible that microbes which have great resistance to heat, such as the tetanus bacillus, may not give the same

¹ BRITISH MEDICAL JOURNAL, February 12th, 1910, p. 400.

² *La semaine médicale*, 1910, No. 9, xxxv.

result, and he considers the point worth investigation; but so far as the above organisms are concerned, he believes that they are completely destroyed in the process of baking, and that apart from any accidental contamination of the surface after it has left the oven, bread may be considered to be a thoroughly aseptic article of diet.

THE ARMY HORSING SCHEME.

It is estimated that the number of horses which would be required by the army on a general mobilization would be about 200,000, and the Secretary of State for War has issued a scheme for providing a sufficient reserve of trained horses. The fundamental idea of the scheme is that the War Office should supply a horse, to ride or drive, to any suitable person who has a use for the animal, the main conditions being that the animal should be baited and properly taken care of, and held in readiness in case of mobilization. The horse will remain the property of the Crown, must be at all times open to inspection, and must be kept at the address named. The allottee must properly feed and care for it, and keep it shod at his own expense, but may use it for any legitimate purpose, riding or draught, but not for carting heavy loads, for ploughing, or for any other work which the commanding officer may deem likely to interfere with its military efficiency. It must not be let out on hire, and in case of death or accident to the horse due to circumstances which in the opinion of the Army Council have arisen out of neglect or improper treatment, the allottee will be liable to pay such compensation, not exceeding £40, as may be fixed by the Council. The allottee must take out at his own expense, in the name of the Secretary of State for War, a policy of insurance for £40 against the death of the horse from accident or disease, including death from, or on account of, glanders or other infectious disease. The horse must be given up to the military authorities when considered by them no longer suitable for military requirements, if claimed for mobilization, or if in the opinion of the officer commanding it is not keeping in good condition; the allottee may be required to place the horse at the disposal of the military authorities for a period not exceeding one month in each year for military training, subject to not less than fourteen days' notice. The allottee will have one month from the date of the receipt of the horse to decide whether he will retain it or not, and at the expiration of the month the allotment will continue for twelve months certain, but may afterwards be determined by one calendar month's notice on either side. The allottee will not be entitled to retain the horse if demanded by the Army Council, but if it is demanded, though not on the grounds expressed above, the allottee will be entitled to such compensation as may be fixed by the Army Council. The conditions seem reasonable, and there may be many doctors, especially in the country, who will be glad to obtain a second horse on the terms mentioned; an official circular setting them out in full can, we understand, be obtained on application to the Army Council.

CALCIUM CHLORIDE IN ALBUMINURIA.

THE use of calcium chloride in the treatment of albuminuria has been advocated for some time, and three years ago Iscovesco showed that in cases of nephritis calcium salts caused a considerable diminution in the albumen, but not entire disappearance. He suggested that the beneficial action of milk diet

was possibly due in part to the calcium which it contains. Shortly afterwards Rénon treated several cases with daily doses of 0.1 to 0.5 gram of calcium chloride over a considerable period. In a quarter of the cases the albumen completely disappeared, without any alteration in diet or occupation, even in cases in which a restricted diet had previously entirely failed to reduce the albumen. In half the cases there was a distinct reduction in the albumen. In the remainder there was no apparent change, and in a few isolated cases there was an increase. Calcium chloride has in addition a marked diuretic effect, which is maintained for some considerable time after administration has ceased. This has recently been the subject of some observation by Imbert and Bounamour, who have shown that the continued increased urine excretion is independent of any concomitant alteration in diet or manner of life. A more important result, however, in their estimation is that the excretion of chlorides is increased out of all proportion to the minimal doses administered, and continues for at least a fortnight after the treatment has been stopped. With regard to the albumen, they consider that the action of calcium chloride is very variable. From a clinical point of view, their results seem to suggest the advisability of administering small doses of chloride, preferably calcium chloride, in such cases instead of restricting the patient to a practically chloride-free diet.

IRISH MEDICAL SCHOOLS' AND GRADUATES' ASSOCIATION.

THE members and friends of the Irish Medical Schools and Graduates' Association dined together on March 17th at the Hotel Cecil, with the President of the Association, Sir Alfred Keogh, in the chair. The Chairman of the Council (Dr. T. Hobbs Crampton), introduced Dr. Alfred Sheridan to the Chairman, and announced that the Council had awarded the Arnott Memorial Medal to Dr. Sheridan for an act of heroism, thus described in the annual report of the Council: "On August 24th, 1909, at 2 p.m., Mr. O'Neil was bathing in the sea near Westport, co. Mayo, when he became exhausted and sank. Some children who were looking on became frightened and gave the alarm, bringing to the beach Dr. Sheridan. The children, however, could only vaguely indicate where Mr. O'Neil had sunk. Dr. Sheridan had to locate him by diving; he eventually found him floating away on the tide midway between the surface of the water and the bottom. With considerable difficulty Dr. Sheridan brought him ashore, and after about an hour's strenuous work, he had him out of danger." The Chairman, in handing the medal to Dr. Sheridan, declared that the association was proud of him. The toast of "Our Defenders" was proposed by Mr. Robert Thompson, M.P., and acknowledged by Sir Charles Cuffe. Dr. Macnaughton-Jones, in proposing the toast of "Our Guests," praised Sir William Church for his efforts in forming the Royal Society of Medicine, and presented him with a shamrock set in glass as a memento of the occasion. Sir William Church, in replying, thanked Dr. Macnaughton-Jones for his assistance in setting on foot the Royal Society of Medicine. Dr. Seymour Taylor, in an eloquent speech, submitted the toast of "The Association," and the Chairman, in responding to it, said that the Irish doctors in England had a distinct grievance in that they were excluded from hospital appointments in this country simply and solely because of their Irish degrees. That was not right, and he believed that Englishmen in the end would see that the injustice was remedied. The

pleasure of the company was enhanced by songs, and Mr. G. W. Dawson and Dr. William Douglas, Honorary Secretaries, received congratulations on the success of the evening.

VACCINE LYMPH IN THE TROPICS.

PROFESSOR L. VOIGT, of Hamburg, has recently made a series of investigations and observations on the production of active cow-pox lymph through the medium of the dromedary.¹ The exposure of glycerinated calf lymph to a temperature of 55° C. for even half an hour was found to render the lymph wholly or partially inoperative, and other preparations of lymph gave no better results. Professor Voigt mentions various methods which have been adopted to overcome this difficulty in the form of special packages of more or less non-heat conducting materials, but these are by no means reliable or successful. Living bearers of the vaccine lymph in the tropical zones have been found satisfactory. In the interior of the German African colonies it is not easy to make use of the calf for this purpose, and it was for this reason that Professor Voigt tested the efficacy of lymph derived by transmission through the dromedary. By permission of Mr. Carl Hagenbeck he was able to make use of two dromedaries in the Zoological Gardens at Hamburg. He made a series of careful comparisons of the results obtained by vaccinations with ordinary calf lymph and with lymph taken from vesicles on the dromedary, and found them practically identical; in some cases even better results followed the use of the latter strains. The lymph was effective both as regards primary vaccination and revaccination. His observations show that the dromedary is in no way detrimentally affected during the process, and Professor Voigt is confident that the animal may be utilized as a bearer of vaccine lymph in the interior of the African colonies. The paper is illustrated by six photographic reproductions showing the nature of his experiments and a comparison of the vesicles obtained by vaccinations with calf lymph and that obtained from the dromedary at the same stages in the same individuals both in vaccinations and revaccinations, the right and left arms being used for the comparison.

THE CLIMATE OF EGYPT AND THE SOUDAN.

At a meeting of the Royal Meteorological Society on March 16th Captain H. G. Lyons, F.R.S., formerly Director-General of the Geological Survey of Egypt and subsequently of the Egyptian Survey Department, delivered a lecture on the climatic influences in Egypt and the Soudan. After pointing out that from early times the Greeks recognized the marked difference between the climate of the Mediterranean and that of Africa, and that Aristotle indicated correctly the rains of Ethiopia as the cause of the annual flood of the Nile, Captain Lyons said that within the last ten years a network of meteorological stations had been established, and the observation thus made furnished a basis for further investigations. The comparatively low relief of the country, combined with the effect of the north-easterly trade winds which swept over it, produced the hot and dry conditions characteristic of North-Eastern Africa. Modified somewhat in the north by the warm waters of the Mediterranean, and in the south by the rains of the monsoon in summer, the highest temperatures and most arid conditions were reached between Wadi Halfa and Dongola, where northerly winds, clear skies, and a great range of temperature prevailed throughout the year. The important rains were those falling in Uganda, on the southern plains of the Soudan,

¹ *Centralblatt für Bakteriologie Parasitenkunde und Infektionskrankheiten*, Bd. 53, Heft 3.

and on the table land of Abyssinia. Fed by the south-easterly air currents blowing in from the Indian Ocean, these monsoon rains supplied the equatorial lakes, and the tributaries of the Nile. The Abyssinian table land, with its heavy summer rainfall, was the most effective, since it furnished the whole of the Nile flood, and enabled the Nile to maintain itself through 1,500 miles of desert. As the sole source of the flood, the variation of these rains directly determined the abundance or deficiency of Egypt's supply. Hardly less important in these days of intensive cultivation of cotton was the study of the winter storms which occasionally broke in the Soudan and Abyssinia, raising the level of the rivers and increasing the supply of the Nile appreciably at a time when the normal supply was inadequate. The climate of the region not only influenced the water supply, but the great range of temperature rapidly disintegrated the rocks, and the wind removed the finer portion of the material; in this way the deserts were being constantly modified, and vast ranges of sand dunes piled up. The distribution of vegetation was very markedly influenced both by the moisture and by the physical character of the country.

NEW HOSPITAL AT SAN FRANCISCO.

THE new City and County Hospital of San Francisco when completed will be, it is said, the finest institution of the kind in the United States. The cost is estimated at £400,000. The site is 866 long by 760 wide and there will be erected on it a general hospital, a hospital for infectious diseases, and one for tuberculous patients. In addition to these there will be a power house, laundry, mortuary, and ambulance sheds and stables, all within convenient distance of the main buildings. The general hospital which will be four stories high, will have accommodation for 512 beds, and will be so constructed that if necessary the number of beds can be increased later to 752. The infectious diseases hospital will consist of two two-story ward buildings. Each floor will be divided into two units, each composed of a nine, three, and two bed ward. Thus there will be eight units of fourteen beds each. The buildings for tuberculous patients will be arranged and equipped in accordance with modern scientific doctrine. The patients will be divided into two classes—incipient and advanced. The incipient cases will be treated in a one-story arcade open on the south but protected from the wind; the advanced cases will be housed in two-story wards provided with shelters, which can be thrown open when this is thought necessary. The mortuary will consist of two autopsy rooms and a demonstration room, which will accommodate between 75 and 100 students.

Medical Notes in Parliament.

[FROM OUR LOBBY CORRESPONDENT.]

The Indian Medical and Nursing Services.—Last week Mr. Kelly put a series of questions to the Under Secretary for India, of which the first related to the resolution passed last September by the Bombay Medical Union, and to the belief among Indians that the main obstacle to a reform of the medical service was the desire to reserve the highly paid posts for the people of this country. Mr. Montagu replied that the Secretary of State for India was not acquainted with the resolution referred to, but if, as stated, it had been sent to the proper authorities in Bombay for transmission to him, it would doubtless reach him in due course. He was not aware of the existence among Indians of any such erroneous belief as that referred to in the