To satisfy them more fully must be the laudable object of future investigations, and these investigations, it seems to me, premise an amount of experiment and work that will demand the energies and time of a great number of workers. I rejoice, therefore, that Dr. Klein and Dr. Edington have seen their way to publish the results they have obtained at their present stage, and although I am unable to take the sanguine view of these investigators as regards the point at which they have arrived, I still consider that their work is of the greatest value. They have added to our knowledge of septic organisms, and they have in the most forcible way called the attention of the profession to problems of surpassing interest that loudly demand solution. Setting aside the scientific question, we have the national question before us of the enormous annual loss of life caused by this poison; and it seems to me that it has become the duty of every member of the profession to lend what help he can towards throwing light on these difficult questions, even although his light may assume the form of the fitful cross-light of criticism. It is this humble task I have tried to fulfil in the paper I have read to you.

But a higher duty falls to our medical corporations, and might not inappropriately be assumed by the powerful Association which you represent. Undoubtedly it is in the power of the British Medical Association to contribute valuable assistance in the prosecution of these investigations. Even if the whole question were not entered into, there are certain points in the investigations which the Association might most usefully examine, and which would be capable of elucidation. I would suggest that a committee of workers should take up the question of the organisms present in the blood of scarlatina patients from the first manifestations of the disease onwards, and that each of these organisms should be subjected to careful examination and study. I would further suggest that the question as to whether animals do or can suffer from scarlatina should be exhaustively dealt with, and that an attempt should be made to enlist into co-operation the authorities of a veterinary school. In the metropolis at least, workers, cases of scarlatina, and a veterinary institution directed by scientific men, are always to be found. To utilise and combine these opportunities is a task which the Association can well fulfil, and the suggestion that this task should be taken up is my poor contribution so far to the solution of the problem.

ON THE ORGANISATION OF THE THROMBUS FORMED IN AN ARTERY AFTER LIGATURE.

Read in the Section of Pathology at the Annual Meeting of the British Medical Association held in Dublin, August, 1887.

By SHERIDAN DELEPINE, M.B. Edin., B.Sc. Lausanne,
Pathologist and Lecturer on Physiology at St. George's Hospital Medical School.

THIS study is based on the macroscopical and microscopical examinations of a series of sections of arteries prepared by the author for Mr. C. T. Dent, F.R.C.S., Assistant Surgeon to St. George's Hospital. These arteries had been tied in Australia (on account of prohibitive laws) by Mr. E. C. Stirling. Although Mr. Dent has not published the results of his observations on the properties of ligatures used in these cases, he has very kindly allowed the publication of some of the observations which have been made by the author on the organisation of the thrombus. The animals used for these experiments were adult sheep, and the artery tied in all cases was the femoral.

The effects of age, sex, state of the individual, or the influence of the species or of disease are therefore not considered.

The following views are supported or advanced in the communication, and are demonstrated by means of a number of microscopical sections of arteries removed from the body, 5, 9, 13, 17, 20, and 23 days after ligature:—

1. The coagulation, although nearly always present, apparently is not a necessary phenomenon. The presence of a ligature and the obliteration of the vessel are not in themselves sufficient to cause thrombosis, for, if the artery be tied immediately below a collateral branch sufficiently large, the clot may be almost or even entirely absent. The size of the coagulum depends on the distance existing between the ligature and the first collateral branch above. Coagulation may occasionally occur in the portion of the artery which is beyond the ligature (in relation to the heart).

2. The clot which is observed in an artery a few days after ligature is not simple; it is composed of a variable number of smaller clots, more or less recent. The oldest are those nearest to the ligature and

most central; the most recent are, on the contrary, those which are most proximal. In addition, as after coagulation has taken place the clots contract, new coagula become deposited in the spaces formed between the original coagula and the walls of the artery. As these clots contract they carry away with them some of the cells of the intima which are attached to their surface. They may even by their contraction cause a separation between the superficial and deep layers of the intima, causing thus the formation of more or less oblique fissures into which the blood, coming from the still patent portions of the vessel, may rush.

3. The cells of the tunica intima are the chief factors in the so-called organisation of the thrombus, and this accords with the views supported by Cornil and Ranvier, but the most active parts are not, as they say, in the immediate neighbourhood of the ligature. The proliferation of the cells of the intima is most marked at the level of the proximal convex surface of the clot, that is, at a distance from the ligature equal to the length of the thrombus. It is at that level that the new connective tissue, formed at the expense of the intima, penetrates most deeply into the substance of the clot.

4. The leucocytes, or small round cells which are found in the clot, either because they were in the blood before coagulation or have penetrated from outside the vessel into the coagulum by diapedesis through the arterial walls, do not seem to play an active part in the organisation of the coagulum. They have a tendency to accumulate near the surface of the clot.

5. The so-called vascularization of the thrombus corresponds to three processes which follow each other, but are based on different properties.

The first of these processes does not give rise to a true vascularisation, whilst the second produces only a preliminary arrangement during which there is no true circulation.

(a.) The first, or false vascularisation, is simply due to contraction of the clot; it is a kind of mechanical vacuolation. It is the only kind of canalisation that exists during the first decade, and probably it can still produce some effects after that time.

(b.) The second or potential vascularisation, is due to the arrangement of cells of the tunica intima which form the connective tissue invading the clot. This arrangement of cells gives under the microscope the appearance of a vascular network, but there is as yet no true circulation. This state may exist up to the twentieth day, or even later.

(c.) The third or true and effective vascularisation, begins when the embryonic vessels, which have just been mentioned, become hollow, and circulation becomes at last possible through the plug of young connective tissue which has taken the place of the clot.

The embryonic vessels at this stage pass through the tunica media (which has degenerated through disuse) and anastomose with the vessels of the adventitia, of which many are of new formation, in the neighbourhood of the ligature. Blood can therefore now pass from the patent part of the artery into the surrounding tissues through these small channels. Judging by our specimens this does not take place before the twenty-third day, but it is possible that in other cases this may take place either sooner or later.

6. *Conclusions.*—The essential factor in the organisation (or rather the replacement) of the clot is therefore the tunica intima. The clot itself is nothing more than a complication which probably is useful, but which finally entirely disappears, being replaced by the connective tissue resulting from the proliferation of the cellular elements of the tunica intima.

The internal coat is always altered whether there be thrombosis or not, but when there is a coagulum the proliferation is most marked in the region of the proximal surface of that coagulum. The presence of the clot seems to give a greater intensity to these phenomena, as can be seen by comparing the walls of the vessel on the proximal and distal side of the artery and in the cases where thrombosis is apparently absent and those where it is evidently present.

The channels which are found in the clot during the first two weeks are not true vessels, but simply fissures—vacuoles—due to contraction of the coagulum. There does not seem to exist any true circulation in the tissue taking the place of the clot before the end of the third week, at least as far as one can judge from the small number of cases examined.

These views are all based on direct observation, and partly support the views of several observers, such as Stilling, Cornil and Ranvier, Schultz, Riedel, Durante, Hamilton, Ziegler, Ballance and Edmunds, etc., but a critical examination will easily prove that, taken as a whole, these observations present some novel features. On the other hand, they are antagonistic to the views advanced by a great number of writers. Their publication is therefore justified in the mind of the author.

(The arteries were tied in September, 1884, by Mr. Stirling. Microscopical preparations were made in the winter 1885-86. A great part of the report was already written in March, 1886, and therefore this inquiry was conducted at the same time as that of Messrs. Ballance and Edmunds, and is to be considered as a parallel investigation perfectly uninfluenced by their work.)

SECTION OF PATHOLOGY.

The Contagion of Scarlet Fever.—Dr. THIN read a paper which will be found at page 402.—Professor MCFADYEAN said that the subject of Dr. Thin's paper was one of engrossing interest, and had more than an average interest to him, as his time was largely devoted to the study of diseases on the borderland of human and veterinary medicine. He had studied very carefully the history of the investigation into the Hendon outbreak, and he was not convinced that the udder disease was the cause of the scarlatina. The disease in the cows was of a very contagious character, and yet it appeared that instances of its prevalence in a herd were very rare, for were it otherwise, epidemics of scarlatina from this cause must be of every-day occurrence. He had made some investigations into eruptive diseases of the udders of cows before and since the Hendon outbreak, and he had seen numerous cases of an udder eruption which agreed with the lesions as described by Dr. Klein. It might be they were not identical, and certainly they had not caused scarlatina outbreaks. He thought that both Dr. Klein and Dr. Edington erred in not in the first place attempting to infect the calves or other animals with materials taken direct from cases of human scarlatina. He was at present engaged in such an investigation. One calf he had fed with a very large quantity of desquamation, and another he had inoculated with blood from scarlatina patients, and yet these animals never developed a symptom of scarlatina.—Dr. WOODHEAD had been very much interested in Dr. Thin's paper. He thought that he had placed his finger on the weak spot in Dr. Klein's chain. In many cases it seemed to him that the pathognomonic features of scarlatina had been lost sight of, and similar conditions had been allowed to pass muster as the true scarlatina. After what they had heard about the resistance of the calf to both feeding and inoculation experiments, it did seem peculiar that Dr. Klein should only be able to produce any serious symptoms in parturient cows, or just those animals in which he had previously been able to produce certain pyæmic conditions. Dr. Edington had pointed out to him (Dr. Woodhead) that his streptococcus rubiginosus cultivated from scarlatinal blood was very like Klein's micrococcus scarlatinae, and Dr. Thin had again pointed out that these were both very like the micrococcus pyogenus aureus. It should always be remembered that in the blood from scarlatinal patients there were numerous micro-organisms, and nothing was more probable than that the organisms above mentioned, which were so frequently associated with certain forms of inflammatory disease, should make their way into the scarlatinal blood, and give rise to certain conditions when inoculated into the prepared (parturient) cow. He could confirm what Dr. Thin had stated in regard to local abscess and lymphangitis following inoculation from one of the pustules in a milker.—Professor CROOKSHANK said that Dr. Thin's paper was of especial interest to him, as he had followed the researches in connection with the contagium of scarlet fever very closely. The subject awaited further investigation. Dr. Edington's research was fairly complete, but an examination of normal skin was most necessary, and, indeed, might well have claimed attention from the very first. Dr. Klein's researches were also very elaborate and valuable, but the evidence adduced appeared to be very weak in some particulars. Professor Crookshank cited as an example the omission of first proving that scarlatina could be communicated to the monkey by the direct inoculation of scarlatinal blood, and he thought he was justified in his conclusion that so far it could only be stated that Dr. Klein had isolated a streptococcus which was associated with an eruptive disease of the udders and teats of cattle.

Displaced Humerus.—Dr. C. F. MOORE showed a lad, aged 15, in whom the head of the humerus was permanently displaced. The accident occurred at the age of 6 months, by being thrown on the ground. The points of interest appeared to be the wasting of the shoulder muscles, the low position of the head of the humerus, the probable smallness of the glenoid cavity and the head of the humerus, the facility with which the latter could be partially replaced, and its immediate displacement by gravitation.

Abnormal Growth of Thumb-Nail.—Dr. C. F. MOORE also showed a woman, Jane K., aged 69, otherwise in good average health, who presented an instance of abnormal growth of thumb-nail, which commenced, as she states, subsequent to a "bustion" (thecal abscess ?),

thirty years ago, when also, it would appear, she lost the distal phalanx of the thumb by the suppurative. When first seen by Dr. Moore the growth much resembled a curved horn, deeply ridged, and, although rather slight and somewhat incurved laterally, it soon after caused pain by its pressure on the palmar surface of the thumb, for which she was in the habit of getting it cut away; it was now again growing. The curving of the growth might be due to the form of the thumb, resulting from the abscess above mentioned; it differed from the long nails so carefully preserved from injury by delicate splints, as indications of superior social position, by the wealthier Chinese. A drawing and sketch, showing the condition of the nail recently and before pruning, was exhibited.

SECTION OF PUBLIC MEDICINE.

On the Influence of Easy Circumstances on Longevity. By Dr. C. R. DRYSDALE, of London.—In the numerous discussions upon mortality-statistics which had taken place for many years past, it had been the custom to speak as if the main point in sanitation were to attend to the drainage and water-supply of cities and villages, and to get rid of other *ledentia* in the shape of zymotic diseases. To many this was the alpha and omega of sanitary art. For his own part, he was convinced that there were essential points in the question of longevity which required more attention even than these very important topics, for in his capacity of physician to one of the London hospitals greatly attended by the poorest classes, he had seen an immense amount of preventable mortality, which he could attribute to nothing more than bad living, bad shelter, and poor clothing. M. Villermé, of Paris, one of the earliest writers on hygienic science, found, in his day, that in France persons between the ages of 40 and 50, when in easy circumstances, had a death-rate of 8.3 per 1,000 per annum, against 18.7 per 1,000 in a similar group of ages among the poor. He found, too, that at Paris, between 1817 and 1836, 1 in 15 of the poor population of the twelfth *arrondissement* died, against 1 in 65 in the rich or second *arrondissement*. In 1877, when he (Dr. Drysdale) was attending the International Hygienic Congress at Paris, he received from Mr. Edwin Chadwick's hand some statistics about London, collected by himself, which showed that there were sub-districts in that city, containing houses in good condition, where the death-rate was not over 11.3 per 1,000, whilst there were other sub-districts in the same district (slums) where the death-rate was as high as 38 per 1,000, and even as 50 per 1,000. That distinguished hygienist in 1843, when the mean death-rate of all London was 24 per 1,000, found that in the parish of Bethnal Green the mean age at death among the gentry, professionalists and their families was 44; of the shopkeepers and their families, 23; and of the wage-classes, labourers and their families, 22. It seemed, then, to him (Dr. Drysdale) that in future we must endeavour to discriminate more than we had done hitherto in our mortality-returns; and endeavour to give the mortality of the various classes according to their annual income. Mr. Charles Ansell, jun., Secretary to the National Assurance Company in London, in the year 1874 obtained statistics of the mortality of the children (no less than 48,044) of the well-to-do classes in England and Wales. The result of his inquiries showed that 80.5 per 1,000 of such children died in the first year of life. The death-rate of children of this age in Liverpool was 188 per 1,000, and in the poorest localities of some European cities as many as 380 or even 400 per 1,000 of the births end in death in the first year. Mr. Ansell further showed that the mean age at death among the richer classes in England and Wales was, in 1874, as high as 55; whereas Dr. B. W. Richardson and Mr. Chadwick, a few years ago, stated that the average age at death among the wage-receiving class in Lambeth parish, London, was 29½ years. To make his conclusions more plain, Mr. Ansell calculated that there died in 1873 in England and Wales 386,179 persons under the age of 60; and if these had all had the mortality of the well-to-do classes, he alleged that only 226,040 would have died. Thus in one year poverty had killed no less than 142,139 persons in England and Wales alone. About the time when Ansell's tables were published, in the healthy colony of New Zealand, where food was so cheap that a leg of mutton then sold for a shilling in Christchurch, the condition of the people seemed to have been so comparatively free from indigence that, although there was a birth-rate of 41 per 1,000 annually, there was a death-rate of only 12½ per 1,000. With a similar death-rate for England and Wales, 230,000 lives would have been saved in 1873. According to Thouvenin, in the *Annales d'Hygiène*, the mortality of several so-called unhealthy occupations was only another word for poverty. With the exception of cotton-beating, dividing and carding of silk cocoons, white-lead and grinding, there were scarcely any trades necessarily dangerous to life. Tubercular diseases, he found, caused

65 per 1,000 of all the deaths among the rich, and 250 per 1,000 among the poor. The late Dr. Edward Smith's statistics at the Brompton Consumption Hospital, which were amply corroborated by some of the speaker's own, explained this; for he found that the parents of the consumptives attending that hospital had, on an average, produced no less than 7.5 children. His (Dr. Drysdale's) statistics among the poor women in the East End of London gave 7.20 children as the average to a marriage. Of course, such large families caused the greatest misery to the unfortunate offspring, who in many cases were chronically starved, and died of bronchitis or rickets in infancy in consequence. If they accordingly compared the mortality of the parishes of London inhabited by the wealthy, such as Kensington, with 186,584 inhabitants; St. George's Hanover Square, with 88,176; Hampstead, with 53,758; and St. James, Westminster, with 28,178; they found that these fortunate parishes had 7,779 births and 5,614 deaths in 1886—that is, a birth-rate of 21.8 and a death-rate of only 16 per 1,000 annually, whilst four East End or poor parishes, namely, Shoreditch, with 125,508; Bethnal Green, with 129,895; Whitechapel, with 63,345; and St. George's-in-the-East, with 46,403, with a population nearly equal to the above four wealthy West End parishes, had a birth-rate of actually 38.3 per 1,000, and a death-rate of 24.4 per 1,000 in 1886. Thus it would appear that equal populations of the poor of London produced about twice as many children as the rich of the West End, and had a death-rate which was to that of the West End parishes as three is to two. Such facts were not comprehensible unless it were admitted that poverty was the main cause of high death-rates; and he was pleased to find that the fact was beginning to be well understood both in Paris and in Dublin, although in London a great deal of obscurity still seemed to hang over the question. The extremely high death-rate of Dublin had long appeared to him to be due to the mass of indigence which was to be found in the purlieus of that city. Dr. Grimshaw had alleged that a main factor in the deplorable mortality of Dublin was the poverty of a large proportion of the population, and the crowding into the city from the country of indigent persons in the decline of life, who ended their days in hospitals and workhouses; but he showed that the death-rate among the well-to-do classes in Dublin was only 17.3 per 1,000 in 1886. M. de Haussenville mentioned, in the *Revue des Deux Mondes*, that in Paris, if statistics were at hand of the families of the rich and poor, it would be found that the number of children to a family among the latter was thrice what it was among the former. It was nearly axiomatic, therefore, that in European cities, wherever birth-rates were high, poverty and early mortality must abound. The great economist of the century, Mr. J. S. Mill, said that "little advance can be expected in morality until the producing of a large family is regarded in the same light as drunkenness or any other physical excess."

Outbreak of Dysentery at Glynn, Co. Wexford, in May, 1886. By ALBERT MOUILLOT, M.B.—Dr. Mouillot (Gorey) described the situation of the houses in which the disease broke out as one of extreme isolation. The houses were built on the sand, about a hundred yards from the sea and a mile from the road. They were four in number, built in pairs, and containing nineteen inhabitants. There were no sanitary arrangements, and all house-refuse was thrown out on the sand in front of the doors. Early in May a soldier named James Redmond returned from Egypt suffering from chronic dysentery. Everything that passed from him was thrown out on the sand, and about May 20th other cases broke out. Between that date and June 19th nine of the inhabitants had acute dysentery of a most severe type. The symptoms were quite characteristic of the disease in its tropical form, being principally fever, intense pain in the lower part of the abdomen, constant straining, and passing of jelly-like stools mixed with blood. Out of the nine cases, five died. Dr. Mouillot considered these facts sufficiently important to bring under the notice of the profession, as they supplied an affirmative answer to the question, Is dysentery communicable? for, until James Redmond's return from Egypt, the disease was unknown in these parts. The outbreak could, then, only be accounted for by supposing that the ejecta from a case of dysentery under certain conditions gave rise to a poison capable of reproducing dysentery. In the case under consideration the conditions were favourable, the soil being practically sand and the weather hot. It was a distinct advantage, in studying the etiology of the disease, to have it occurring free from the complication of "malarial" poison, which hitherto had been considered as an almost necessary factor in its development. Probably the disease often spread in the tropics from similar causes to those which caused the epidemic in Glynn.

State Organisation of Hospital Management. By J. BRINDLEY JAMES, M.R.C.S. Eng.—In this paper, while describing the excellent system of hospital organisation devised by the French, the author

suggested the adoption of a somewhat similar organisation in Great Britain. While admitting that the financial sources whence the French Government derived the means of maintaining an admirable public hospital service were not available here, he suggested the feasibility of an advantageous substitute being found; but, above all, he sought to show, by the model selected, how easily, with a little method, a State-maintained hospital system, with an efficient senior and junior staff, selected by competition—a system at once elaborate and simple, guaranteeing greater comfort and relief to the sick poor throughout the land—might be even more easily established in this country.—Sir CHARLES CAMERON said that he was, unfortunately, not present during the whole period of the reading of the valuable paper, to which he was sure all present had listened with pleasure and interest. He gathered, however, from the concluding portion of it that its author advocated the supervision of all hospitals, private as well as public, by the State, and also that there ought to be a general rate for the support of hospitals, in the form of an Imperial tax. He approved of supervision of private hospitals, because, with the best intentions, their managers might make serious mistakes in their management. In many Continental States no one was allowed to teach in even private schools unless duly certificated by the State; how much more necessary was it not that those who undertook the more serious responsibility of treating the sick, to whom the lives of the citizens of the State were entrusted, should be proved to be competent for discharging so serious a duty? The State supervision should, however, be as little as possible of an officious kind. It would be most undesirable to damp the enthusiasm of the benevolent men and women who devoted so much of their time to the management of private hospitals by undue interference. As to an Imperial rate, it would certainly benefit what was, perhaps, the most hospital city in the world, as it contained four times as many hospital beds in proportion to population as London, and had 40 out of every 100 beds existing in Ireland, though its population was only one-sixteenth that of the whole country.

Over-Pressure as a Cause of Cerebral Disease in Childhood. By Dr. MORE MADDEN, Physician to St. Joseph's Hospital for Sick Children, Obstetric Physician, Mater Misericordiae Hospital, Dublin, etc.—This communication was based on a clinical experience extending over a period of upwards of twenty years, during the greater part of which the writer had been connected with institutions in which the diseases of childhood were brought under observation, such as St. Joseph's Hospital, which was the first special hospital opened in Ireland for the reception of sick children. In all these institutions an increasing prevalence of cerebral and cerebro-nervous disorders had been observed of late years. This was ascribed by Dr. More Madden largely to the daily increasing educational pressure now brought to bear on children from a very early age. During the first eight or ten years of life, a child's education should be chiefly, if not exclusively, moral and physical, whilst at that age the pressure put on children especially in public schools, in order to comply with the enforced requirements of our present educational code, he regarded as entirely disproportionate to the normal capacity of mental powers still necessarily immature, and fraught with the gravest pathological consequences. The latter were now painfully manifest in the increasing prevalence of cerebral disease, namely, meningitis, cephalitis, headache, sleeplessness, neuroses of every kind, and other evidences of cerebro-nervous disorder, amongst the patients under his (Dr. More Madden's) observation in the Hospital for Sick Children. In such institutions the tendency to cerebral disease was, moreover, increased by the general malnutrition of the children of the poor, and from their consequently increased liability to suffer from the effect of the undue mental pressure to which they might be subjected, even in their earliest years, in modern school life. A child thus prematurely mentally overworked was, he contended less likely to develop into a healthy and well-educated man or woman than one whose mental faculties were allowed to lie fallow during the first decade, or are more rationally then occupied by the mere rudiments of elementary education. It was further urged that, if the State, for reasons of public policy, determined that the children of the poor, however young, must be compulsorily educated from the moment they could be dragged out to school, it should then at least afford the means by which the evils of this absurd and mischievous system might be minimised, by providing sufficient food and also opportunities for physical training, as well as mental education, for every pauper child thus compelled to attend an elementary school.—Mr. POWER said there was no doubt that over-pressure was a cause of meningitis, from his personal knowledge in the London School Board. All was not due to forcible education, because certain children begat the disease by their own superior receptivity. The Govern-

ment inspectors exacted too much from the teachers, instead of allowing them to exercise their judgment as to the mental strain capable of being borne by a child. To the worries in the children themselves were superadded physical conditions from not being allowed to perform necessary functions at the time when the desire came upon the child.—Dr. CORBY warned the Section that they ought not to assume that in every case meningitis was caused by mental over-pressure, because it was well known that many children prone to this disease exhibited unusual intelligence; they were consequently more precocious, and their intellectual attainments were improperly attributed to the exertions of their teachers. At the same time, he thoroughly agreed with Dr. MORE MADDEN that the present system of education in Ireland, especially that favoured by the Intermediate Act, produced disastrous results amongst the youth of the country, and instanced the case of a young girl, aged 11, whose sight was failing owing to being obliged to sit up till one o'clock at night to prepare her lessons for the morning. In many instances he was asked when some of his little patients would be well, the great anxiety for recovery being stimulated by inquiries of the teachers as to whether the children would be able to attend the examination to be held in a fortnight or month. The Intermediate Act, in paying the teachers by results, bribed them to cultivate the mind at the expense of the body. The Government prevented children from being employed in factories except for a limited time, whilst, on the other hand, by the Intermediate Act, they encouraged them to engage in work far more calculated in many instances to ruin their health. The speaker thought the physical condition of the coming generation urgently demanded the attention of the Government, as the present mental over-pressure was already producing most serious results.—Sir CHARLES CAMERON agreed with the admirable observations of Dr. Madden. He believed that amongst the very lowest classes such of their children as attended school often were so badly fed that they were unable to apply themselves to study, and often broke down under it. A little food supplied by benevolent organisations to that unfortunate class of children would produce an excellent result in the improvement of both body and mind. A very small sum expended in this way would produce a large result. Sir Charles unfavourably criticised the sanitary accommodation of the Irish national schools, and stated that a large proportion of them had no sanitary accommodation at all.

The Repeal of the Contagious Diseases Acts. By M. J. MOLONY, L.R.C.P. Ed., Medical Officer of Health for Arklow.—The Contagious Diseases Acts having been repealed, the question again arose how far the zeal of well-meaning but misguided persons was to be allowed to run riot, and to what extent, if at all, the influence of their profession was to be exercised against it. The Contagious Diseases Acts lessened enormously the amount of venereal disease among our soldiers and sailors. Since the repeal of the Acts, syphilis had largely increased, and the efficiency of the army and navy had been thereby considerably impaired. Even in this respect alone, the question of re-enactment was one of grave national importance. Previous to the passing of the Acts, the provision of hospital accommodation and treatment for the most unfortunate, and to his mind the most pitiable, class of their fellow creatures was deplorably inadequate. Generally speaking, provincial hospitals did not admit venereal cases. The great London hospitals exhibited a tendency to reduce their lock wards to the vanishing point. The public would not subscribe towards the maintenance of voluntary lock hospitals to any considerable extent. The lock hospitals under the Acts provided ample accommodation for prostitutes in their several districts. The results were most gratifying. Venereal disease rapidly decreased within those areas, and many hundreds of virtuous wives and innocent children were saved from foul and loathsome diseases. Now the lock hospitals were closed, and thousands of women were relegated to conditions of squalor and misery, allowed to spread syphilis broadcast, and deprived of medical treatment—a state of affairs which reflected shame and disgrace on our boasted civilisation. Then, again, the admirable influence which the religious and moral surroundings in the hospitals exercised in reclaiming the abandoned was withdrawn, with consequences the most deplorable that could be imagined. The numbers of prostitutes and brothels rapidly diminished under the operation of the Acts. Thus, in Devonport district, for instance, the strength of the former was reduced from nearly two thousand to less than six hundred. Since the abrogation of the Acts the numbers had again largely increased. Perhaps the most brilliant effect of the Contagious Diseases Acts was the practical extinction of juvenile prostitution in the prescribed areas. In one district alone, this involved the entire disappearance from the streets and brothels of about three hundred girls under 15—truly a magnificent triumph, beside which the efforts of purity guilds and benevolent moral crusaders paled into insignificance. The most terrible and disastrous consequence of

repeal had been the rapid and well-marked increase in juvenile prostitution. The Acts operated beneficially in lessening the amount of solicitation, thus saving young men from a not inconsiderable amount of temptation. They also conduced to public order and decency by compelling the women to behave better in public, saving many virtuous girls from their pernicious example—that unfortunate example which was now so well known to be the principal cause of prostitution. The Acts had been favourably reported on by Select Committees and by Royal Commissions, by medical officers of both services, by general practitioners, by clergymen, by boards of guardians, and other representative men and public bodies of the districts in which they were in force. Their re-establishment was, he hoped, a question merely of time. Meanwhile, it was the clear duty of the governing bodies of general hospitals to throw open their doors for the reception of venereal cases, and it was their duty to advocate by every means in their power the re-enactment and extension of those valuable and equitable measures.

The Evil Effects of Imperfect Sanitary Laws. By E. MACDOWELL COSGRAVE, M.D., F.K.Q.C.P., Honorary Secretary Dublin Sanitary Association.—Sanitary laws, although not dating far back, were neither complete nor clear. Acts and sections of Acts had to be read together, and "decisions" were required. In Dublin, excellent by-laws regulating new buildings were passed in 1880, whilst in the townships they were very much later; in Drumcondra the number of houses had nearly doubled during the last six years, but by-laws were issued only a few weeks ago. The laws against spreading infection did harm, owing to the want of compulsory notification, the earlier cases being systematically concealed, and registration of a death being often the first notice of an outbreak received by the sanitary officers. The clearance of unhealthy areas was slow and expensive, the preliminary steps might take from one to three years. If done more rapidly, the cleared space could not be used, lest the owner who had neglected the property should demand a fancy compensation. Health and life were often wilfully imperilled. People were induced by lowered rent to enter newly-built houses, rheumatic fever, phthisis, etc., resulting. Houses were let with defective drainage, or the next-door drains infected them. Men married and had families, yet made no effort to supply them with proper housing, clothing, or food. The cure for these and similar cases seemed to be, first, the recognition by the Legislature of a man's property in his life and health; secondly, by Parliament only laying down the great principles of sanitary legislation, and not attempting to fill in the details; and thirdly, by the formation of a Board of Health with full power to control local sanitary authorities.

Organisation of the Sanitary Staff of Ireland.—Dr. ROBERT BARRY presented a paper in which, after stating that the administration of the sanitary laws in Ireland had not been successful, he suggested that for sanitary purposes each province of Ireland should be arranged in divisions, districts, and subdistricts; that each province should be under the control of medical inspectors of the Local Government Board, each division under that of a superintendent medical officer of health, each district under that of a district medical officer of health (now consulting sanitary officer), each subdistrict under that of a medical officer of health. The only change involved by this scheme was in the number and position of superintendent medical officers of health. The duties of the various officers were defined in the paper. The scheme, it was urged, would tend to encourage the study of sanitary science by medical officers of health; it would lead to the accumulation of valuable statistical information, and the efficient administration of the sanitary laws would be better secured.

CLINICAL MEMORANDA.

DIPHTHERIA CIRCUMSCRIPTA.

I HAVE just had under my care a case of sore-throat very similar to those described by Mr. Alfred Barrett in the JOURNAL of July 23rd. A boy, aged 6, was brought to me on July 7th by his mother, who said that he was "out of sorts," but he had not complained to her of anything in particular. He was anæmic, and looked ill. On examining his throat, I found the left tonsil slightly enlarged, but not very congested, and on its surface, just as Mr. Barrett describes, a circumscribed ash-coloured slough about the size of a shilling, and deeply imbedded. There was an enlarged gland about the size of a pigeon's egg at the angle of the jaw. The temperature, pulse, and urine were normal, and the only symptom complained of was thirst.

I ordered iron and chlorate of potash internally, and the throat to be painted occasionally with Beaufoy's preparation of chloride of soda,