SOME OF THE DIFFICULTIES WHICH OCCUR IN THE ADMINISTRATION OF SMALL ISOLATION HOSPITALS.*

By FRANCIS H. MAY, M.R.C.S., L.R.C.P., D.P.H.,
Medical Officer of Health of Aston Manor.

IT is no easy matter for a part-time medical officer of health, when writing a non-academic presidential address, to prepare one of sufficient interest to be read at the Midland Branch of the Society of the Medical Officers of Health, all of whose members are better versed and trained in hygienic subjects than I am, many having even taken part in the framing of public health legislation before I had entered the field. Nevertheless I have endeavoured to choose a practical subject in which I have had some experience, viz., "Some of the difficulties which occur in the administration of small isolation hospitals." By this title I mean infectious hospitals without a resident medical officer but under the superintendence of the medical officer of health.

It would be as well to make it clear at the outset that it is not to be inferred that these difficulties are so many or so great as to call into question the utility or necessity for the provision of such commendable institutions as isolation hospitals. I desire rather at this juncture to emphasize the statement that with sufficient accommodation and efficient administration they are absolutely indispensable to the sanitary welfare not only of densely populated towns but of all districts, whether urban or rural, and play an important part in preventive medicine.

Structural.—Many of the older and smaller isolation hospitals present structural difficulties both in the administrative offices and in the meagre ward accommodation. This is sometimes owing to their having been originally built as small-pox hospitals, but finished either too late for the small-pox epidemic or disinfected after the epidemic has subsided, and subsequently utilized for the treatment of scarlet fever, diphtheria, or typhoid fever. The treatment of these diseases, especially scarlet fever, requires more wards and much more bathing and nursing accommodation than was provided in the old days when some of the small-pox hospitals were constructed with one or two pavilions of two wards each and with one small bathroom to each pavilion. These adapted hospitals, if utilized for scarlet fever,

were evidently not likely to prove large enough nor so well adapted for the treatment and segregation of patients as later ones built for the purpose; and sooner or later they have to be extended, either with permanent modern wards or, in epidemic periods, by temporary wooden or iron pavilions built during urgent need. Isolation hospitals so constructed may probably prove adequate for local requirements in ordinary times, but owing to the difficulty in their administration medical officers of health have had to incur grave responsibilities when an epidemic has presented itself in their districts; and in coping with it as hospital superintendents they have had to face the added difficulties and anxieties arising from the number of patients so rapidly overtaking their accommodation. This by no means implies any fault of the medical officer of health, or lack of recommendations to his council to extend permanently both the administrative offices and wards in non-epidemic periods. In my own case the medical officer of health as hospital superintendent at such a critical period not only had to convert his committee to the urgency of adding a pavilion of two wards, but to insist on a temporary one being erected within a definite number of days. In such a case, unless his co-officer the surveyor rises to the occasion, he may have to take nearly all the responsibility of such temporary structure, whether of wood or iron, slated roof or otherwise; its size, lighting and ventilation; and the foundations and drainage, even when this building has to be erected in a limited number of days—it may be in the winter months.

To add to this he will have the additional anxiety of knowing that the cost of this pavilion will most likely have to be paid for out of revenue not provided for in the estimates, for upon only a few of these temporary pavilions have the Local Government Board been willing to lend money; and yet he will have to induce his committee at these panic times to build according to Government measurements, *i.e.*, 2,000 cubic feet per adult, in order to indulge the hope that a short loan by the Local Government Board may be subsequently granted.

The possibility that the height of the epidemic may be passed before this new extension pavilion is finished and its utility lost until the next epidemic, is another source of anxiety, and indirectly it supplies another argument against medical officers of health being appointed annually.

* A Presidential Address delivered before the Midland Branch, on October 7th, 1909.

Another consideration in isolation hospital administration, and one in which the medical officer of health is sometimes at fault, is that when obtaining temporary ward extension in an epidemic, extra sleeping accommodation for nurses employed to work these wards must be included.

Of recent years nearly all isolation hospitals have been freed to patients resident in the district, and rightly so; but how few councils where fees were charged, at the same time or previously to the transition, considered the increased administrative difficulties this would involve and extended their ward and nursing accommodation to allow for the greater influx of patients before the next epidemic visited their district? When Aston Manor freed the scarlet fever hospital to patients some years ago the isolation only represented 52 per cent. of notified cases in the district, but the proportion rapidly rose in the following years to 85 per cent. of notified cases.

As scarlet fever is endemic in most towns and large urban districts (apart from the isolation of other diseases in hospital) I consider that for the proper treatment and segregation of cases of scarlet fever, allowing cubic space of sufficient capacity, much more ward space is required than was anticipated when the treatment in hospital was first undertaken, therefore persistent efforts on the part of the medical officer of health in overcoming these difficulties by supplying ample ward space is more than justified, as it tends towards more efficient work, more rapid recovery, quicker discharging, and a more speedy subsidence of an epidemic. It also tends to obviate the risk arising from premature discharge of cases. Let me add that to lessen administrative difficulties abundant ward space is desirable even in non-epidemic periods to allow for each ward in turn to lie fallow for a time; this permits of the necessary washing down of walls, floors and ceilings, and especially the disinfection of beds and bedding, thus minimizing ward infection.

That some small isolation hospitals have no steam disinfectors on the premises is a great disadvantage. In this connection I may mention that disinfection of hospital beds in a steam disinfectors on the premises should be carried out systematically as well as when occasion requires, also that the steam disinfection of all dirty clothing before admission to the laundry for washing is requisite, especially as two or more diseases are often treated upon

the same site, and sometimes have to be treated in the same hospital.

This paper might have been entitled "a plea for increased ward accommodation to ease administrative difficulties," even bearing in mind that the more these extensions occur the more beds, staff and supervision are required; and I would contend here strongly that if the accommodation for the nurses be increased in proportion there will be fewer difficulties to surmount, more efficiency, and less anxieties when epidemics threaten or occur. It is only just to state that some of these particular administrative difficulties and much of the apparent delay of councils in extending originally insufficient permanent isolation hospitals are due to the slow method of procedure in the submission of the necessary plans, etc., to the Local Government Board for their approval, the time taken before the plans are sanctioned in procuring an inquiry in order to obtain a loan for extension, and subsequently further delay in advertising and the selection of tenders, together with the slow process of erecting a permanent structure. Much of this would be obviated if the Local Government Board more fully recognized these difficulties, also the utility in epidemic periods of the rapid extension of isolation hospitals by means of temporary pavilions, always providing they are built in accordance with Government plans and regulations or to set plans recognized by the Local Government Board, loans accordingly being assured, though of short duration.

I cannot refrain from words of thankfulness that, owing to the recognized danger of small-pox being spread by aerial infection for a considerable distance, the Local Government Board refuse their sanction to loans for the erection of a small-pox department on isolation hospital sites when utilized as hospitals for scarlet fever or other diseases, and have further made it conditional in granting loans for extension for scarlet fever that no small-pox cases shall be treated on the same site, thereby minimizing other administrative difficulties and necessitating a new site and hospital being procured for small-pox.

As the provision of adequate accommodation both for patients and staff is so intimately connected with the efficient administration of isolation hospitals, I hope, at some other time, to show you four types of temporary wards all added in epidemic periods to the permanent Aston Manor Isolation Hospital opened in

June, 1885. This small isolation hospital was originally built as a small-pox hospital, but it was not completed until the epidemic of small-pox had nearly disappeared from Aston Manor by the help of a tent hospital. As the new hospital was not in use for some time, it was utilized for the isolation of scarlet fever, and for this purpose it has been employed ever since, but it has been much improved and extended, a new site and small-pox hospital a quarter of a mile away having been subsequently provided.

The following are the types of the four temporary wards added to the old permanent structure. In 1890, owing to an increase of scarlet fever, Pavilion "C," to accommodate twelve adult patients, was built in the fourteen days following Christmas, 1889, of wood on brick foundations, with slated roof, and warmed by slow-combustion stoves, but for which a loan was refused. This was built nineteen years ago and is still in regular use.

"C." *Loan and Cost.*—No loan. Building and furnishing, £753.

In 1893, during an epidemic of small-pox in Aston Manor, Pavilion "E," to accommodate twenty adult patients, was built in twenty days. This pavilion was erected of wood and corrugated iron on a brick foundation, and is used now for scarlet fever for overflow cases.

"E." *Loan and Cost.*—No loan. Building, £967. Furnishing, £17. Contractors paid by instalments.

In 1895, owing to an epidemic of scarlet fever, Pavilion "B" was built for twelve adult patients in twenty-one days, with two bedrooms upstairs. This pavilion was built with double wooden walls, with felt and shavings between, on brick foundations, with slate roof.

"B." *Loan and Cost.*—No loan. Building and furnishing, £1,195.

In 1906, owing to another epidemic of scarlet fever, a permo-temporary pavilion "A," to accommodate twenty adult patients, was erected according to Local Government Board measurements upon a foundation with drainage for a permanent block, the superstructure consisting of wood and iron lined with felt and sawdust between. This pavilion was erected in November and opened in the short space of one month from the day the resolution was passed by the council, despite most inclement weather.

Whilst building the pavilion, accommodation for the increased staff was included, and two bedrooms for two nurses each were erected

on the ground floor but separated from the wards by a wall of brick, with separate entrances outside and lavatory.

Upon request, the Local Government Board, after it was erected, held an enquiry, and a loan for twelve years was granted for this permo-temporary pavilion.

"A." *Loan and Cost.*—Loans: £1,529 (twelve years) building and £245 (ten years) furnishing; total, £1,774.

I should not like this Society to think that because I admit the usefulness of permo-temporary ward extension (*i.e.*, temporary superstructure on foundations with drainage as for a permanent block) in epidemic periods that I am any the less a strong advocate, when time and money permit, for these extensions being always carried out by the provision of permanent wards in non-epidemic periods. Of course, the administrative offices are of necessity increased by permanent buildings.

Resident Medical Officer.—The question of the number of patients who can be safely treated without a resident medical officer is a debatable one, and one too much dependent on the local circumstances to be able to give it a definite answer. It is also largely dependent on the nature and type of the disease. A continuance for several months of a hundred and twenty cases of scarlet fever, many of whom would be convalescents, may certainly be dealt with without a resident medical officer provided he has an efficient staff; but taking into consideration the care and anxiety the discharge as well as treatment these cases involve, from an experience of these epidemic periods with over one hundred cases in hospital, I am of opinion that a visiting medical superintendent ought then to have extra medical assistance in some form or other. In isolation hospitals where diphtheria and typhoid fever are admitted and treated the necessity for a resident becomes apparent, the admission of such cases often requiring immediate surgical attention.

Visiting.—Apart from difficulties arising from structural defects and meagre accommodation for staff and patients, there are many other questions which arise in the administration of small isolation hospitals. A system which permits of adult visiting once or twice a week is to be deprecated, although if there were no risks of infection it has some advantages. The public eye tends to keep up the standard of punctuality and scrupulous cleanliness. The public visiting assists the arguments for adequate

ward accommodation in epidemic periods, as visitors soon see when overcrowding of cases commences. The visiting of parents can also be utilized in making arrangements for patients' discharge. But on the whole the system is an unsafe one through minimizing the effects of isolation, and is otherwise objectionable, often making a cheap peep-show of patients who abhor being viewed under distressing circumstances. Where patients are in danger special permits might be issued, and general visiting abolished.

Operations.—A difficulty which often presents itself at an unexpected moment is whether the consent of a parent should be obtained or not before operating, *e.g.*, for mastoiditis. I usually operate and tell the parent afterwards; this saves injurious delay and possible refusal, or a demand for consultation with the medical practitioner, and as no anæsthetic is called for in urgent mastoid operations, that region of the body being almost without sensation, I feel it is not so necessary to alarm the parents in advance. The radical cure of mastoiditis I should not attempt or recommend in fever hospitals, as it is better performed by specialists, but I find this is seldom necessary if cases are not delayed and are operated upon early enough—that is, not waiting for pus to form—tenseness, tenderness or redness with high temperature being sufficient justification in so safe a region to operate. I am pleased to say I have had few cases which did not heal in hospital.

Ringworm.—A minor difficulty is to be found in the admission of cases affected with ringworm and the risk of its spread, as scarlet fever patients in the stage of desquamation are especially liable to catch ringworm in hospital. In the segregation of cases, male and female ringworm wards are almost a necessity, together with frequent disinfection of bedding, and it is necessary to advise the parent that the patient has ringworm on admission, as this particular skin affection is often not cured on the discharge of a patient. During the past ten years I have systematically had all hair on the heads of children, male and female, clipped on admission, and the hair shortened or removed in cases of women whenever there is indication of dirt or neglect. This procedure has led at times to criticism and trouble, but has been the means of discovering several cases of ringworm which otherwise could not properly be treated, and would have increased the risk of its spread, besides lessening the work and difficulty on discharge.

Staff.—Another minor difficulty is the maintenance of staff in non-epidemic periods. As long as a hospital is full or the number of patients exceeds two-thirds of its accommodation, there is little trouble; below that number, the staff may have to be reduced to satisfy economic considerations. This often (when the month's notice has terminated) necessitates advertising to increase it again, owing to a sudden influx of cases, and in the long run costs more than retaining old, tried, and worthy nurses. This reduction of staff is often ill-timed and no economy, especially as medical superintendents are expected at short notice to staff a small-pox hospital in the event of a case arising in a district, and it necessitates a minimum of three or four being drafted from the staff in the event of opening up wards in the small-pox hospital even for one patient. This difficulty I have had to face on more than one occasion.

I am aware many hospitals are run with probationer nurses and the staff cannot so easily be interfered with, but the system of training with a non-resident medical officer I have long since discarded, and employ fever trained nurses with wardmaids under them, which ensures more safety in the management.

The fact must not be overlooked that sickness among the staff may temporarily reduce it, to say nothing of the provisions which must necessarily be made for extra night duty, special nursing, or even holiday after arduous strain in epidemic periods.

Return Cases.—I cannot treat of the difficulties in the administration of isolation hospitals without reference to the much-discussed and important subject of return cases. To minimize some of the recognized difficulties and dangers of these return cases, also to prevent the risk of litigation after discharging scarlet fever patients from hospital, I will describe at some length the plan I have adopted for seven or eight years, of utilizing one of the two visiting days for the interviewing of one or other parent or relation of those patients passed for discharge the day previously. They are plainly told the patient's condition, and that however long he or she may remain in hospital it is not safe for the person discharged to mix with young or susceptible children under a month's quarantine outside, *i.e.*, to mix with children or persons under forty years who have not had scarlet fever, other than the parents, who must of necessity take their risk. I also advise that a child discharged shall not attend any

school till this period has elapsed, and am willing to give a certificate for its absence after discharge. At the same time I explain to them that I cannot say when any case is free from "lung" or "ward" infection carried in the lungs. I recommend that they either send the discharged child for at least a month to some place where there are no other young or susceptible people, or send away previous to the patient's discharge the children who are at home for a month, thereby obtaining a month's quarantine outside hospital.

The system gets discussed among the parents visiting, so that when the time comes for their children's discharge they are generally prepared with some arrangement. They are asked to sign a paper agreeing to this when fetching their child home on the following day, so that if there is no truth in their statement the written lie often checks them. Since I adopted this system there has been no threatening of litigation in return cases, and my return cases also have become greatly reduced. Where such arrangement is impossible and children have to return home among others, I have adopted a plan of discharging the child as if going home and isolating it in a pure ward or small cottage on another site across the road for a minimum of three days, with nurse separated from rest of staff; the patient's and nurse's washing, etc., being done on the spot. Although this plan has not always prevented return cases where the child discharged is going among other children it has minimized the dangers, also the criticism and risk of litigation if return cases do occur; and I believe that few hospitals do more, or are more careful in discharging cases, than the Aston Manor Fever Hospital.

Even with these and many other precautions batches of return cases may occur. I say batches, and mean it, for I notice that my return cases occur in small batches periodically. For instance, I discharged during a severe epidemic 120 cases into two neighbouring authorities without a known return case, and over eighty in my own district, yet later had a batch of three or four return cases that had run a normal course in hospital and with no alteration in method of discharge. Several times have cases been admitted to hospital from a home to which in a day or so I was contemplating discharging a child. All fresh clothing is expected on fetching a child out, none being sent from hospital except on written application.

There are many other difficulties connected

with hospital isolation, both structural and administrative, to which I have not adverted in this address, but I feel that I have already trespassed on your patience much longer than I ought. I recognize that this department of public health work on which I have so imperfectly lifted the curtain this afternoon is one of considerable importance, and have assiduously endeavoured during the years I have been engaged upon it to keep it free from reproach. There are other medical superintendents at these hospitals present this afternoon, and I hope that they will supplement my deficiencies from their experiences.

A MEDICAL OFFICER OF HEALTH ELECTED MAYOR.—The Oswestry Town Council have received the formal resignation of the medical officer, Dr. R. de la Poer Beresford, who has accepted the unanimous invitation of the Council to act as Mayor during the ensuing year. Dr. Beresford's letter of resignation was in the following terms:—"Oswestry, October 26th, 1909. Gentlemen,—In order to accept the honourable position of Mayor, which you have offered to confer upon me, it will be necessary for me to place in your hands my resignation as your medical officer of health. In doing so, however, may I be allowed to say that it is my express wish to be intimately associated with and have the supervision over the duties during my year of office, that after serving the Council in that capacity I may be in a position, with your permission, to resume office at the close of my official year as Mayor of Oswestry. As probably the senior medical officer of health in England, I feel very proud of that office. Thanking you for your great courtesy and many kindnesses in the past, I am, etc., R. de la Poer Beresford, M.D., M.O.H." In order to give Dr. Beresford an opportunity of resuming office as medical officer of health at the close of his mayoral year, the Council resolved to appoint his successor for one year only.

PADDINGTON TUBERCULOSIS EXHIBITION.—This Exhibition, which has been organized by the National Association for the Prevention of Consumption, will be held in the Congregational Hall, Queen's Park, Harrow-road, from December 8th to 17th inclusive. It will be open daily from 12 to 9.30 p.m., and there will be no charge for admission. The organizers hope to be able to arrange for a popular lecture to be given each evening, also for demonstrations and conferences. On December 13th, at 5 p.m., Dr. Allan, Medical Officer of Health of Westminster, will lecture upon "Methods for Systematizing and Co-ordinating Medical and Social Work in connection with Tuberculosis." A discussion will follow.