a week, made in advance weekly, monthly, quarterly, half-yearly, or yearly, at the option of the member. 3. That large families are assisted by all their children being free members of the institution, so soon as five of the family have been enrolled as paying members. 4. In these five, members of other clubs may count. 5. That, while every discouragement is given to delay in entering until illness occurs, yet, under certain regulations, admission may be gained even during sickness. 6. For married women, being members, the midwifery fee is partly paid from the fund in aid. 7. That all duly qualified medical men within the district are, if willing, medical officers of the society. 8. Each member, when sick, may choose his medical attendant, no change being allowed during the current year. 9. That the contributions of the benefit members be divided among the medical officers, in proportion to the number of cases attended by each. 10. That the honorary fund, arising from donations and subscriptions, be employed by the committee to defray the expenses of management, and in providing nursing, food, stimulants, etc., for the needy members during illness. 11. That local secretaries (generally the schoolmaster) be appointed for each village to receive the contributions of both benefit and honorary members, their remuneration being 5 per cent. on the amount passing through their hands.

In its practical working, such a provident dispensary is found to present numberless advantages; medical assistance is early resorted to; the working man's liability to his doctor is limited to a regular and definite amount; the doctor finds his booking work and doubtful debts greatly diminished; the poor but honest man gladly ceases to accept the gratuitous assistance of the medical profession; the dishonest have no longer excuse for neglecting a Christmas account; the benevolent of the neighbourhood may assist the very poorest by enrolling them as members.

From the honorary fund, or by special gifts, a variety of useful appliances, conveniences, and sick-room comforts, may be accumulated at a *dépôt* for sending out to sick members. If a cottage hospital be at hand to receive a diseased or injured member, the weekly payment for board may be defrayed by the fund in aid. And, to complete all, it remains only that skilled nurses be employed and an invalid kitchen provided, from which they may draw supplies for the sick members.

With regard to that portion of the question proposed, which relates to public hospitals, it must be borne in mind that, however preferable a large cleanly and well ordered hospital may be to the small, close, filthy attic, living-room, or cellar home, the statistics of mortality in such institutions do not bear comparison with those of patients treated in country cottages; and so apparent is it that the aggregation of patients in large wards of large hospitals is disadvantageous to them, whether regard be had to their comfort, quietude, or chances of recovery, that Sir James Simpson and other able thoughtful men of the day are advocating the distribution of sick people in smaller wards or pavilions over a larger area than is usually covered by a hospital. The multiplication, therefore, of small village or cottage hospitals throughout England (even to their being as many as its steeples) must be correct in principle, and tend to diminish mortality and suffering. Perhaps the advantage, next in importance, accruing to the public from such institutions, is the improved standard of medical and surgical skill which they tend to create by enabling provincial medical men to retain under treatment cases of severe illness or accident, which would otherwise be transferred to a county or metropolitan hospital, and so affording opportunity for the exercise and advance of that skill and knowledge with which so many young men annually leave the London Schools of Medicine for the provinces.

A class of patients may be induced to submit themselves to systematic medical and surgical treatment in a comfortable small hospital near to their own homes and friends, who would not consent to enter the more distant and dreaded portals of the city hospital.

It is well for a community to feel and know that there is always ready in its midst, a bed, a nurse, a medical staff, for the prompt care of the maimed, the crushed, the burnt, of whatever rank or station.

The village or cottage hospitals may be made a *dépôt* for the supply and a humble school for the education of nurses for duty in the surrounding neighbourhood.

Mr. Albert Napper (the ingenious originator of the system of cottage hospitals) and Dr. Edward Waring have published such complete accounts of what they should be, and how organised and managed, that it is unnecessary here to enter into such details; but, in reply to the question propounded for discussion, on the present occasion it may surely be asserted that the multiplication and broad-cast scattering of such miniature infirmaries will conduce to the welfare of the community.

The writer also wishes to raise the question, Whether it is desirable that the present system of recommendation of patients, by subscribers to hospitals, should be continued? It is well known that this practice has long been discontinued in the best and most useful Metropolitan Hos-

pitals, it being found that under it the beds would be filled by comparatively unimportant cases, to the exclusion of severe urgent and necessary ones. And there is too much reason to believe that such is the case in many provincial hospitals, in which comparatively trivial cases are treated because sent by some distant patron, while the back slums of the town may be crowded with more acute more urgent cases. It is an undoubted fact, that many eyes are lost by the delay necessary to procure a formal recommendation to an Ophthalmic Hospital.

Surely it would be better that the selection of patients, of house-surgeons, matrons, and other officials should be left by the subscribers in the hands of a competent committee of Management, one in which the medical element is adequately represented; so that the public may feel confidence in applying, or sending needy applicants, to the doors of our hospitals.

CONSERVATION OF THE URINE FOR PATHOLOGICAL EXAMINATION.

By WILLIAM TOZIER, L.A.H.I., Dublin.

THERE is a method of urinary examination that up to the present time (as far as I can understand) has been overlooked by scientific men. It is a remarkable fact that so simple a method of investigation should have escaped their notice and attention so long. Every tyro in chemical lore is acquainted with the amusing experiment of making a concentrated solution of any salt—sulphate of soda, for instance—heating it to its boiling point, and at this stage of its expansion corking the bottle firmly, or hermetically sealing it. After some moments the solution begins to crystallise, and this process continues until the interior of the vessel ultimately becomes one mass of beautifully formed crystals, capable of being conserved for any length of time, no decomposition or change of any kind resulting. Now, it is manifest that the urinary secretion is susceptible of a similar treatment, and that not only could our public museums be enriched *ad infinitum* with morbid and normal preparations of urine as a class in themselves, illustrative of pathological preparations present, but the whole history of vital phenomena in connection with urinary diseases might at any time be studied in those ultimate products themselves. I have in my possession three specimens of urine obtained from different sources; and it is extremely interesting to observe the regularity with which the crystallisable amorphous and organic principles arrange themselves in each case. With a lens of ordinary power, any or all of these substances may be read off at a moment's notice, and an amount of instruction obtained scarcely to be believed or arrived at in the ordinary methods of examination.

Half an ounce of urine obtained from a young cat that died of grey hepatitis of the lung six years ago, retains at this period all its characteristic properties; there is at the bottom of the little vial a remarkably fine transparent crystal of urea, some uric acid, and other salts, present, all immersed in a dark sepia-coloured solution, no agitation whatever having affected their continuity. In another specimen (that of a jaundiced patient), more than twelve months conserved, there now appears an abnormal amount of oxidised products at the bottom and sides of the containing vessel, with a transparent coating of purpurate of ammonia very manifest to the observation, while the *gamboge* tint of the menstruum has not undergone any perceptible change whatever. In a third vessel, I have the sum of three collections, removed from atmospheric pressure, occurring in an individual who some time since passed a calculus from the bladder spontaneously. In this product I am capable, from the appearance of the results on the sides of the bottle, of knowing the exact character of the calculus passed, although never having an opportunity of witnessing or examining it.

I am disposed to think that this method of examining the urine and conserving it for the purposes mentioned, would prove a most attractive branch of study in other hands. The method to be pursued in every case is simple and effective, it being only necessary to fill a properly constructed vessel with the urine for analysis, and subject it to its boiling point in a water-bath, and, when all the air is effectually removed, cork it up tightly, and finally seal it over to prevent the further re-admission of air. In this state it may be conserved for years. In a short time after the operation, the crystalline particles commence to deposit themselves, which change continues until all the saline constituents of the urine become apparent; they may be now examined with an ordinary lens or the naked eye, or under the stage of a microscope like any substance, or with a common object-glass; for, as they attach themselves with some firmness to the sides and bottom of the containing vessel, no rude movement can at any time materially displace them.