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NURSING THE SICK.

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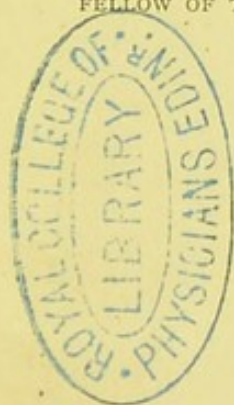
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THE
SCIENCE AND ART
OF
NURSING THE SICK.

BY

ÆNEAS MUNRO, M.D.,

FELLOW OF THE FACULTY OF PHYSICIANS AND SURGEONS, ETC.



GLASGOW :
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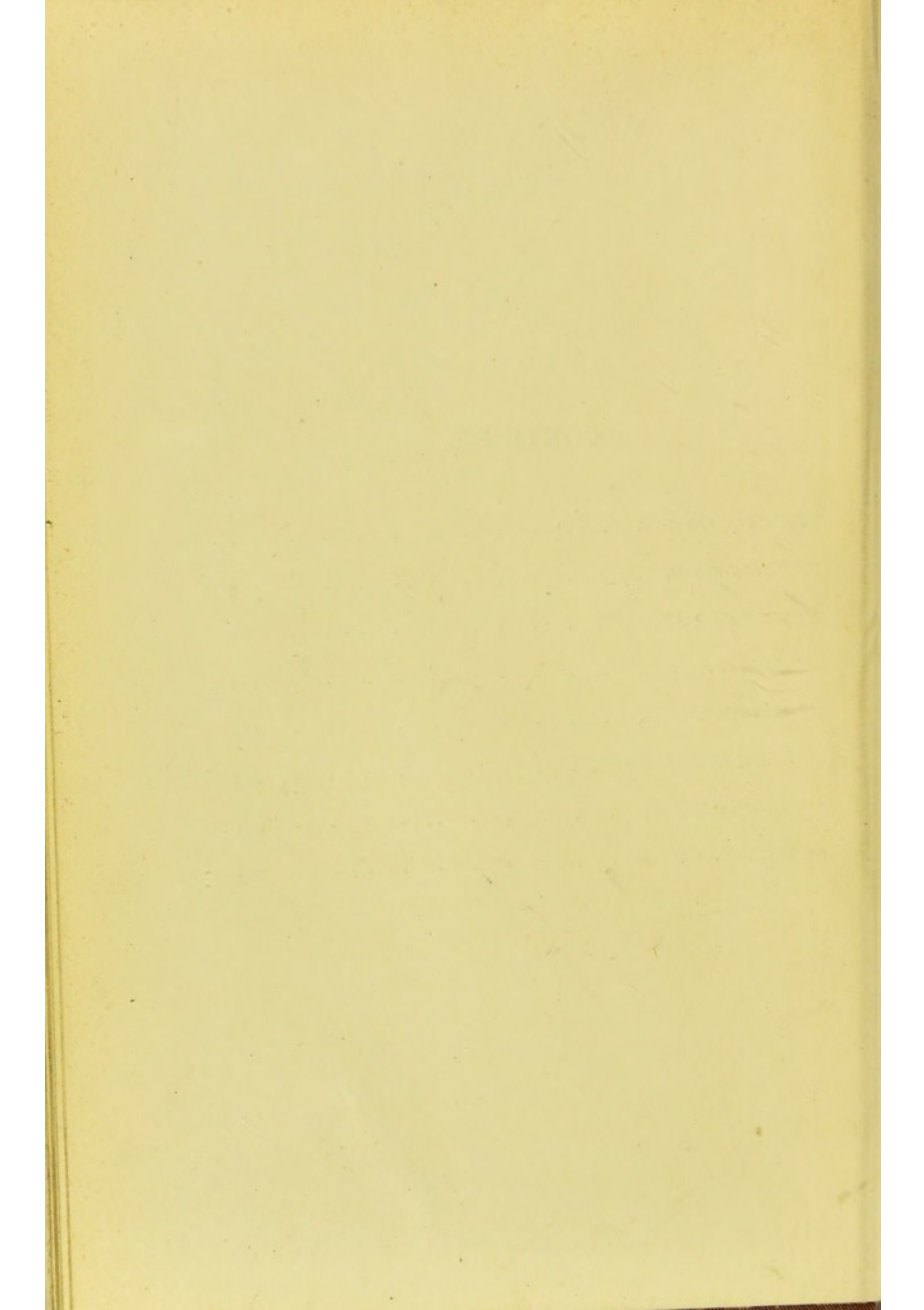
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DEDICATED
TO
MY FATHER,
ALEXANDER MUNRO,
AND
To the Memory of
MY MOTHER,
BARBARA INNES GUNN.



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NURSING THE SICK.

INTRODUCTION.

I N presenting this volume on Nursing the Sick to the public, advantages of a special nature are claimed in becoming acquainted with the subject. Immediately after graduation, the writer was invited to travel with, and take the medical charge of, an invalid country gentleman and his family, which enabled him to devote the greater part of a year to *constant* attendance and observation of the sick. He afterwards enjoyed the honoured privilege of waiting on one of the most illustrious and eminent physicians in Britain during his last illness, and who earnestly advised him to write on the subject. Since then he has had abundant opportunity in private practice of applying the principles and lessons thus learnt, and of appreciating the benefits of Nursing

Always take
advantage
of oppor-
tunities.

the Sick when thoroughly understood and attended to.

Nursing
hitherto
little heeded.

The importance of nursing is ever increasing, its literature is avowedly small, and during the past few years private citizens and public bodies have begun to feel the necessity of raising the standard of nurses and nursing. The study of the subject is of the greatest practical moment to the medical profession and the public alike.

What books
treat of it.

It has been said that its literature is small ; there are, properly speaking, only two works which treat of it at present ;—one by Dr. A. T. Thomson, on the “Management of the Sick-room,”—and the second by Miss Nightingale, called “Notes on Nursing.”* The former has been out of print for many years, and the latter is well known, but it appears that there is need for another more practical than either of the preceding.

* Sometime after writing the text, I found a very excellent little manual, by Mr. Barwell of London, called “Guide to the Sick-room.” Mrs. Barwell has written one on “Nursery Government.” There are several other books relating to the same subject, directly or indirectly, but lacking sadly in detail or minute accurate description of the management of the sick.

The circumstances met with in the sick-room are so diverse in their nature that it is difficult to lay down absolute minute rules which will prove of general practical utility ; indeed, it is impossible to make such rules so as to be applicable in individual cases. What must be done, then, is to have principles which will admit of general application. When the principles of nursing are sound and thoroughly well-grounded, the nurse can more easily perform the art. It is necessary, however, in order that the nurse should understand this, that she must possess a certain amount of education. In all probability the usefulness and capability of a nurse will be in proportion to her education.

Principles of
nursing
necessary.

It is now generally admitted, from all that can be ascertained, that the present supply of trained nurses in Britain, in America, and perhaps also in other places, is quite inadequate to the requirements of the country. In consequence of this deficiency, the care of our sick who require nurses, especially in civil practice, such as, for example, cases of fever, etc., are consigned to the charge of a "monthly" nurse: with what result? Frequently to the spread of disease, and often death. Now, why should our nurses not

" Monthly "
nurse doing
the duty of
sick nurse.

be more numerous; and the right one in the right place? Undoubtedly, the number ought to be augmented, the whole status of our present staff raised; and, fortunately, there have been lately some brilliant examples, who, by their enthusiasm and zeal, must excite attention to the whole matter, and be a power for good.

Nursing
woman's
peculiar
sphere.

But yet there is another aspect, and a much broader one, in which light this subject may be viewed, to wit, the influence that women generally have in the sick-room. How great is the power they wield! still, how rarely do they equip themselves sufficiently, or at all, previous to the time they are thus so urgently required. A nurse, or the woman who has charge of the sick, has a somewhat similar relation to the doctor that the first-mate of a ship has to the captain: each has a proper sphere and duty to do, and neither can be dispensed with. It is well to bear this in mind, for we ever and anon hear it said in social circles that there is no need for calling in the physician, the nurse's "knowledge and experience" being thought sufficient, and acted upon. Would the passengers on board ship, if there is imminent danger, trust themselves to any one except

the captain? No; nor should any one rest contented with any counsel short of the physician when this tabernacle is in danger from disease.

Nurses do not know, nor do they generally pretend to know, the principle upon which the complex mechanism of the human frame rests, although great liberty can be taken with it when there is health, just in the same way that the captain and the passengers can implicitly trust the management of the ship to the mate when the ocean is calm and otherwise free from apparent danger. Nurses, or those who have charge of the sick, often rely on their insufficient knowledge, and thus put off sending for proper advice till the disease has assumed an aggravated form. It is known that in many cases, if assistance had been secured sooner, much suffering and pain would not in all probability have to be endured.

In justification of what has now been said regarding the professional character of those who wait upon the sick—whether they are paid nurses or not—hear what Professor Bennett, in his address to the graduates of medicine last year, said: “When you enter,” he observes, “upon the duties of your profession, you will find that too frequently your best efforts are frustrated

Relation of
nurse to
doctor.

Professor
Bennett on
ignorance of
nursing.

by parents, nurses, or attendants on the sick, who, not comprehending, are therefore incapable of carrying out your instructions. I have myself seen only too frequently," he continues, "the most melancholy deaths produced in families, and extreme wretchedness occasioned from carelessness or ignorance." Considering the source from which these words of advice and warning comes, and from their startling nature, they demand serious attention.

The laws of
life imper-
fectly known.

In the same address from which the above extract is taken, it is remarked, regarding the preservation of life, that "each individual taxes his utmost energies, and that for its defence an army of law-agents, from the judge to the policeman, are remunerated by the State—there is perhaps no subject with which mankind in general, either as communities or individuals, is so little acquainted as that which relates to their own health." Many years ago the late Sir James Clark called attention to the same subject. "In my opinion," says Sir James, "no teacher of any class should be considered competent till he has given proof of possessing a general knowledge of the structures and functions of the human body." The opinions now quoted may suffice in pointing out the

true but sad state of the knowledge of those rules and laws of health which are so necessary to all in the duties which concern our daily life and happiness. Surely the youth of the country had better be taught that on which their health depends, for it will become of far greater moment to them throughout life than cramming them with geography, mathematics, classics, etc., which are all useful, but certainly of secondary importance.

As yet there has been no distinctive term used to designate the science and art of nursing the sick. The word "nosotrophology" (from the Greek word meaning sick or disease, and I care for, nourish, feed), though it sounds harsh, yet, in its broadest and best sense, is most significant, and might have been used. An objection which might be urged against the use of this term is that it may be construed so as to mean the nourishing or feeding *the disease*, as well as caring for or attending *the sick*. In the meantime, the simple title of *Nursing the Sick* will be used. It must be understood, however, that by this is meant that science which relates to the *waiting upon* those who are labouring under disease, and in the broadest sense in which this can be used.

What is the best title?

It is proposed to take up the subject in the following natural order :—

I. The sick-room, or the place where the sick person is to have his bed.

II. The nurse, or the person who is to wait upon the sick.

III. The diet, or the food fit to nourish the sick.

IV. The mode of using the different appliances for the sick.

V. Nursing specially considered with regard to pregnancy.

CHAPTER I.

THE SICK-ROOM.

ON entering upon the consideration of the choice of the sick-room, we at once meet with a difficulty, viz., that in the great majority of cases we have no power of choosing, in consequence of there being no alternative, and sometimes from the very nature of the case it would be imprudent to change the sick person from one room to another. Speaking generally, a community or a town may be divided into three great groups: 1st—The sick poor; 2nd—The great body of the working-class population; 3rd—The middle and upper classes.

The sick-rooms of the poor.

I. The sick poor who have inadequate means of procuring the necessary comforts of life during health, and have made no provision for themselves in disease; whose dwellings are totally unsuited during sickness; and for whom charitable institutions are provided,

Hospitals versus sick dens.

such as workhouses, hospitals, etc.—The choice of a sick-room for the numerous members of this group lies between their own wretched dwellings and one or other of the charitable institutions. The sanitary arrangements of the latter, therefore, demand attention. The inquiry regarding the usefulness of our present hospital system has received much attention lately, and it must receive more still. It is affirmed, on the one hand, that the dwellings in the densest and most filthy parts of our cities (wretched and miserable as these are as regards the general comforts of life), are more to be desired than our present hospitals, as they are, or indeed can be, on account of the principle of aggregation ; while, on the other hand, this is totally denied. In other words, the one says that by taking the sick from their own homes, and by placing them in an hospital, however great its advantages may be, their lives are in a more dangerous condition than if they were allowed to remain in their own homes with all their disadvantages. The other affirms the opposite, and approves of the present hospital system. Such is the nature of the inquiry concerning the usefulness of hospitals ; and from data which appear to be gathered from the

same sources, both parties seem to establish different inferences and conclusions.

The discrepancies thus manifested arise from the want of trustworthy statistics to determine the question satisfactorily. The average death-rate is taken as *the* standard of comparison. Undoubtedly it is an element, but is it a sufficient test to settle this great question? It will be admitted that it is one of the most accurately ascertained and definite points that we at present possess bearing directly on the subject, but is it of itself sufficient to decide it?

Can statistics alone solve the problem?

With regard to the sources from which the statistics are obtained, it may be affirmed that they are not accurate on either side. Private practitioners do not generally keep a register of their cases, and even if they did it would be a laborious matter for them to look back in their case-book for a period say 20 or 30 years, and spontaneously give their experience. This is not at all likely, and it will be universally admitted that the recording from memory is exceedingly deceitful, and scarcely to be depended upon in a question of such vital moment to the country at large. In reference to hospital statistics, few who know them can say that they are perfect in all their details. Per-

Are statistics always reliable?

haps in the matter of death-rate (the test with which we have now to deal) they are as good as statistics on a large scale almost can be. But they do not tell us accurately the cause of death, although that can be depended on more than in the Registrar's Report. In a comparison like the present, based upon the death-rate, we cannot fairly separate the history and the cause of death from the final result ; in other words, we must judge of the individual histories of the cases in and out of hospital as well as the total deaths. From hospital statistics we cannot ascertain the total amount of recovery or improvement, for the statistics themselves are liable to various inaccuracies in this respect.

Grounds of
comparison.

Of course it is denied by those who have agitated this question that the one source of statistics is inferior to the other, although the bulk of evidence would certainly show to an impartial and careful observer that hospital statistics can be more depended upon than those obtained from private practitioners of many years' experience. All will admit that there are errors in both, and, both being faulty, what logically must be the conclusion ? Manifestly, therefore, if there is to be a comparison between home

practice and hospital practice, other considerations than death-rate must be introduced before it can be satisfactorily decided.

Sir James Simpson, being perfectly cognisant that all statistics were faulty to a greater or less degree, believed that in the present case both sides were pretty equal in that respect, that a fair comparison could be instituted between them, and a conclusion as near the truth as possible arrived at. He therefore most energetically collected an unparalleled mass of statistics, raised no further doubt regarding them, but proceeded to compare them, and so made out a very fair case against hospitals, and in favour of the sick being treated in their own homes. The inference, if his premises are granted, was logically true enough, yet it is impossible to suppose at present that the same amount of misery and suffering could be ameliorated by stopping the present system of hospital relief, and, for example, by sending instead all the hospital physicians, nurses, etc., to visit these hospital patients at their own homes. The latter, at all events, seems quite inexpedient.

Surely it will be admitted that the medical treatment, hospital care, and attendance, the abundant

Another
view of the
question.

supply of the best food, and all the comforts of life, as obtained in our hospitals, are much better than the patients could possibly have in their own homes, where all that has been mentioned is certainly at a minimum. It must be remembered that in hospitals the sick are as well attended to and cared for as the rich can be, and perhaps in the majority of cases better; for, note the difference between the two classes: the hospital patients are brought from poverty (in all probability the cause of their illness) and put into a place where they will receive as much as is useful for them; the rich, again, suffer in consequence of luxurious habits and the like, which must be put in subjection when they are ill. Now, it is generally easier to cope with the former than the latter.

Admitted
evils of
hospitals.

But what, then, can be the great arguments against hospitals and in favour of the homes of the sick poor? They seem to be these—hospital influence (called “hospitalism”) and home influence.

Hospitalism may be lessened, not by the complete extermination of hospitals, for pyæmia, for example, will occur in *isolated* houses where there is not more aggregation than usual; but it will be lessened, not stopped, in or out of hospitals, by *more careful treat-*

ment and more strict attention to the nursing of the patient. Doubtless, when hospitalism occurs—as it often does in our hospitals, and carries off with it patients more certainly than most other contagious influences—segregation is one of the chief means to prevent it from spreading.

Cottage hospitals may prove exceedingly useful in this respect, and there can be little doubt of their practicability. Indeed, it might be said further, that by some means of hospital extension,—making the accommodation co-extensive with our requirements,—hospitals would be much more advantageous than they are at present on the palatial system.

Might
cottage
hospitals
not prove
beneficial?

With regard to *Home influences*, much may be said for and against; there is no denying that the happiness obtained by the sympathy of those who are near and dear to the sick person is important, and has a certain effect on the nervous system; the patient's hopes are buoyed up at home, and in some cases a cure may be more easily effected in particular circumstances. It is very doubtful if these home influences can be at all compared to the regimen and attendance in the hospital. Just imagine a sick person taken from a home of poverty and misery,

Could not
home in-
fluences be
secured in
hospitals?

filth, and all sorts of abominations, with insufficient or too frequently no medical attendance or nursing, and put into a nice ward—cottage hospital if you will—where all the comforts of life are supplied in rich abundance, with the best medical and all accessory attendance; surely in such cases the usefulness of hospitals cannot be doubted nor too highly commended. Attention is directed to this view of the subject, for it is a generally-received opinion among the classes for whom hospitals are intended, that attention to matters of detail, more especially in nursing, is inefficiently, grudgingly, and harshly performed; this doubtless has tended to bias the minds of the poorer people, so that they have fostered a dread and horror of hospitals instead of receiving them as a privileged blessing.

Mortality
not the only
criterion.

It seems plain, therefore, that there are many other collateral considerations to be examined in deciding this inquiry as well as the mortality. By all means stamp out hospitalism by better accommodation and nursing.

No choice of
sick-room.

II. The choice of a sick-room for the working-class population.—When the working-man or any member of his family is stricken down with illness, we often

have no choice but to allow him to remain in the apartment he occupies, and use every precaution we can, as far as circumstances will permit, with regard to sanitary and other general arrangements.

In this case the medical attendant meets with many difficulties, especially ignorance on the part of those who have charge of the sick person, and the want of the necessary means to carry out the medical instructions. Directions should always be given in language which can be easily comprehended, and, if the person is at all competent, none will act up to them more eagerly than the members of this group. Very often, however, there is no competent person to take the charge, and in this case it would be advisable to organise a staff of district visiting-nurses similar to, or combined with, the district Bible-women, as now employed by some of our churches.

The Church, in this respect, has shot ahead of our profession. Such an organisation might prove of incalculable benefit in showing the people how to clean their homes *properly*, how to cook their food *well*, and many other things of a similar nature ;

District
missionary
nurses.

Might Bible-
women not
become
nurses also ?

or actually *doing* it themselves for the necessitous. Is there no one to come forward and set the example in this department?

Choice of
sick-room of
vital importance.

III. *The choice of a sick-room for the upper and middle classes.*—Whenever sickness presents itself in a family, it is always a matter of considerable importance to make the sick person as comfortable as possible, as regards the room in which he is to pass his time—it may be only for a few days, or it may be for months. It has been verified over and over again, that the recovery from an illness may in no small measure be aided by attention to this matter, and without it treatment might be to some extent powerless, for occasionally in sickness little things become of great moment. All can bear testimony to the influence the mind has over the body (and *vice versa*), and this power is in no small degree abetted by external objects and comforts. It is necessary to put the sick person in such circumstances as may aid the whole treatment of his case, and the choice of a sick-room often comes up for consideration. Frequently, of course, there is little or no need to change the patient from the room he generally occupies, but care in arranging the different articles in the room,

putting away everything that is unnecessary or cumbersome, is always desirable where there is any serious illness.

The room itself should be moderately-sized, airy, cheerful, and quiet. A room of about 15 or 18 feet square is sufficiently large, if all things are arranged properly. In a climate such as we have, there is little or no advantage in having a larger room. The importance of having the room well ventilated and airy is patent to all; and how this is to be attained shall be pointed out, as far as practicable, in the sequel. The necessity of the room being cheerful may be imagined from cases where the invalid passes a number of years in it: the effect may be as great though it be only days instead of years. If cheerful, it becomes one of the chief sources of comfort and happiness; and it is essential that we should have plenty of sunlight and a good exposure. The view outside—if in the country—should be such as to give the greatest amount of pleasure, buoyance, and strength to the nervous system. Stillness both within and without is indispensable, more especially in some cases of illness than in others; therefore we have

What a sick-room ought to be.

sometimes to cover the street with tan, muffle the bells, while at the same time quietness must be observed by the inmates themselves in their movements throughout the house. Then, how often has the howling of the wind or inclemency of the weather been observed, sometimes nominally, at other times really to prevent the patient from sleeping. The rooms adjacent to thoroughfares should be strictly avoided. The sick-room should not be near the kitchen, because it is apt to make the room too hot and disagreeable, and positively injurious if there is much cooking. Damp and draughty rooms are not good, and one without a fire-place is quite unsuitable.

The sick-room should be on the ground-floor in country houses, if possible, especially where, in cases of illness or convalescence, the patient is prevented from attempting the fatigue of going up and down stairs, for then the patient could more easily get out into the open air. The principal point to attend to here is to see that the room is dry and well aired. In towns, again, the bed-room on the drawing-room floor is the best, as the patient can get into the drawing-room very readily and without fatigue, and it generally contains

the purest air. Frequently it is impossible to carry out these arrangements, and then each case must be considered on its own individual merits. In this way we have sometimes to carry the sick up and down stairs.

When it is necessary to have recourse to this procedure, it is best to have a chair specially adapted for this purpose, which can be easily procured. But until this is obtained, and as it is of importance to save the patient as much as possible, the following plan will often be found very useful. The patient, being seated on a well-made light chair, puts an arm round the neck of each of the two who are to carry him, and who should be situated one on either side; they with one of their hands take a firm hold of the back of the seat of the chair, while with the other they grasp the bar between the front legs of the chair; they should thus lift the patient, and should walk along steadily, keeping step, but neither fast nor hesitating.

To save the sick from fatigue.

THE FURNITURE OF THE SICK-ROOM.

Generally the furniture of the ordinary bed-room is sufficient for the sick-room, but it may be well here to

The sick-room furniture.

advert to the nature of the bed, the sofa, the easy-chair, the tables, and the carpet, because in long tedious cases of severe illness the relations or friends have their attention often directed to the comforts of the sick person, and will do anything and everything to secure what may alleviate most.

The
sick-bed.

The bed should be about 6 feet wide, and $2\frac{1}{2}$ feet high. A large bed is useful, for the patient may be refreshed by changing from one side of it to the other from time to time. When the nature of the illness will permit, as well as the conveniences of the room and other matters, in some cases it will be preferable to have a bed not so broad as the one now indicated, and a small one placed beside it; the patient could thus be changed from the one into the other—in one during the day, in the other at night. But this is not always procurable, nor is it requisite, and a bed such as indicated above will be found the most advantageous—perhaps its only disadvantage consists in its being more unmanageable in making it up or in changing the linen, which, after all, is comparatively a matter of little moment, seeing that the patient may be much benefited by it. The height of the bed should correspond as nearly as possible to that

which has been indicated; if it is much higher than $2\frac{1}{2}$ feet or lower than 2 feet it will fatigue the patient in getting in and out of it. The sick may have occasion to get out of the bed frequently, and the effort has often proved injurious. The box-bed system has nothing to recommend it, so far as the sick is concerned, and is injurious to them, both because too near to the floor and because it produces straining in getting out of it. It matters little whether the frame-work of the bed is made of wood or iron. Circumstances alone can decide which of these will be most suitable in particular cases. If the room is small, an iron bedstead would be the best; but, if the room is large, there can be no valid objection to a wooden one, provided there are means of keeping it clean.

The Mattress.—There seems to be great diversity ^{The} of opinion as to what kind of mattress is most suitable ^{mattress.} for the sick. Undoubtedly a well-stuffed hair-mattress, about eight inches thick, is the best in the majority of cases. It must be remembered, however, that the stuffing is apt in process of time to become matted, and therefore it becomes necessary to make it up anew, as occasion may require. Others, again, complain when lying long on a hair-mattress, and

feel as if they would like to have the bed made. When this becomes very troublesome, a thin hair-mattress placed upon a spring one will obviate this difficulty. The aged, again, cannot sometimes rest so well unless lying on a feather-bed. Therefore the inclination of the patient must exercise a certain influence in the choice of a mattress. It is plain the two latter are quite unsuitable for surgical cases. In exceptional instances we must have recourse to the water-bed, while in a few cases, where the discharges are great, there are mattresses specially adapted for such. In these latter, however, it is common merely to guard the bed with a "macintosh sheet." The macintosh may be either used above the binder and under the lower sheet, or above the latter, and then a wrapper must be put over it, as the skin of the patient is so apt to become tender from the heat and dampness and superinduced weakness. It is generally preferable to have the macintosh and "draw" sheet above, in order that it may be changed, dried, and aired frequently, as there is sometimes a disagreeable odour proceeding from it, which is perhaps one of the principal objections against its use. It will always be found handy to have at least two of these macintosh

sheets if they are to be used constantly. The macintosh sheet should be so large as to preserve the sheet from being soiled with the discharge, but the practical tact and experience of the nurse will direct her how this is to be applied.

In surgical operations, it is useful, in addition, to have some tow with a napkin round it, which, if covered with oiled silk, forms a good support for a stump, absorbs part of the discharge, and protects the bed. A down quilt, in medical cases especially, is one of the most useful articles in regard to sick-bed clothing that can be conceived. It is convenient on account of its lightness and warmth, and therefore well suited for any season of the year—summer as well as winter.

The bed should be so situated that the invalid could see out of the window or look at the fire without any effort or straining, and where there is little probability of the patient getting a draught from its relation to the window, the door, or the chimney. Bed-curtains are now in general use, and are advantageous if not fully drawn on both sides. They *are* useful, and may protect the patient from the possibility of being influenced by a current of air when the room is

Do bed-curtains deserve the opprobrium thrown on them?

being cleaned, or the doors opened for the purpose of ventilation, when it should be observed that the curtain on one side of the bed only should be drawn at a time. They will also prove useful in shading the patient from the direct influence of strong light, which is intolerant in the case of invalids. The different bars and posts of the bed may from time to time be of great service, and the ingenuity of the nurse, and sometimes the sick persons themselves, will find out how these can be best taken advantage of. For instance, a person who is suffering from pain, and having severe attacks of breathlessness, will find it very advantageous to hold the rod at the head of the bed, for he not only finds that it momentarily relieves him, but he is thus enabled to turn himself or change his position with greater ease.

Occasionally
separate
parts of bed
become use-
ful.

If there is no small bed, as pointed out, a sofa in some convenient part of the room is exceedingly useful, for if the patient is physically able he should be removed to it for a period more or less in duration according to his strength. It is the duty of the person in charge to consider which part of the room the sick person ought to be placed, so as to secure safety and pleasure: whether or not it would be

useful to be situated near the window, as persons in sickness show a strong disposition "to look out," although they have never previously shown any particular inclination to do so. Even a change from one part of the room to another is often desirable, for it varies the dreary monotony which the sick often experience. An inattentive nurse never thinks of these things, yet the sick person constantly does so, for as he opens his eyes after sleep they daily fall upon the same spot on the wall, or on some other object of comparatively as little interest.

If it is not possible to have the change now considered, is the nurse to rest satisfied as if nothing else can be done? No. She must ever be thinking of the patient, and endeavour to lighten his mental as well as his physical suffering. It might sometimes be possible, with the aid of one or two others, to alter the position of the bed from time to time, if the patient is unable to leave it. In some cases an easy-chair may be of decided benefit, because it may be moved about easily, and be better adapted to the peculiarity of individual cases. Here, again, it is necessary to note that much may be gained by using an easy-chair with a movable back for differences of

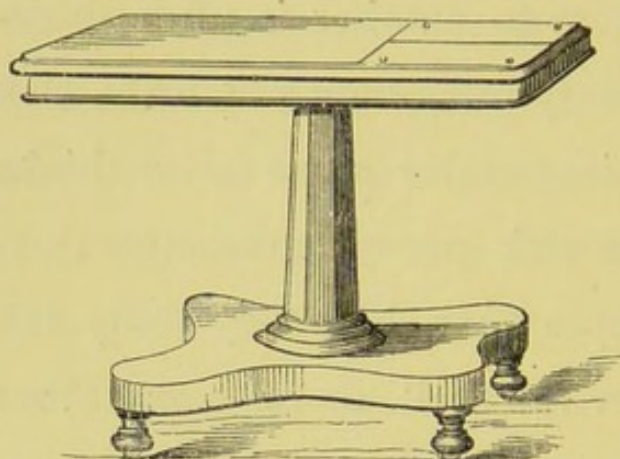
Certain
chairs easier
than others.

inclination; the convenience of this will be greatly increased if it has a foot-piece.

Sick-room
tables.

Fig. 1 gives a representation of a small table which

Fig. 1.



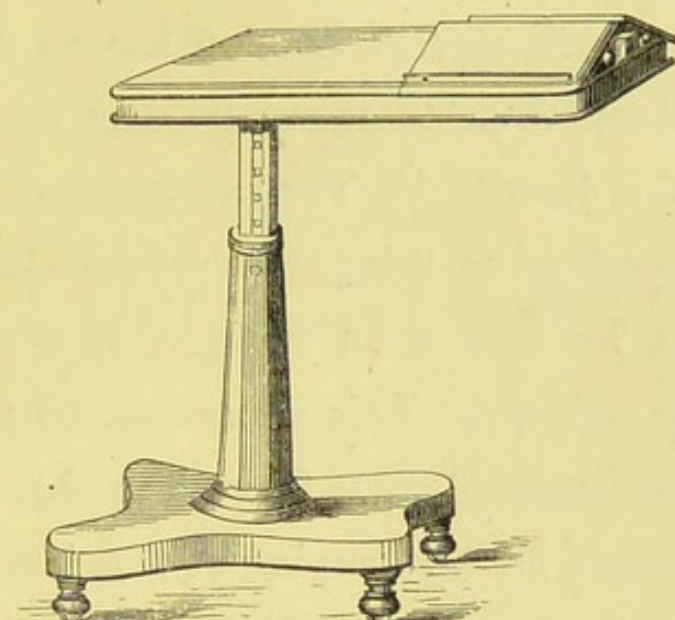
will be found of great convenience in the sick-room. It is excellently adapted for the use of invalids, while it may also be used as an ordinary table; it is particularly

useful for reading when the invalid is so weak that he cannot hold the book for any length of time—a matter of the utmost importance in cases of great debility. The figure represents the table closed, and resembles one in ordinary use.

Fig. 2 shows the table elevated (which may be done to any height desired) with the leaves raised to hold the book, and at the same time the book-rest may be drawn so as to reach the centre of the bed, provided it stood close by its edge. It will at once be seen that the table can be adapted to either side of the bed, and therefore will suit the patient wherever he may be lying. The flat part

of the top of the table may be used for placing such little things as it might be necessary or convenient to have close at hand — as the night-light, a light for reading, a book, or the like.

Fig. 2.



The other table should be larger, and have one or two drawers in it for keeping those things which might be, and indeed always are, handy in the sick-room. The table should be large, so as to hold quite easily all that may be required without pushing one thing against another, thereby causing unnecessary noise and disturbance. The drawers are not to be used as ready places for putting away anything, so as to be out of sight, and very probably, therefore, out of mind.

It may be necessary to cover the table with oil-

How to prevent troublesome noises.

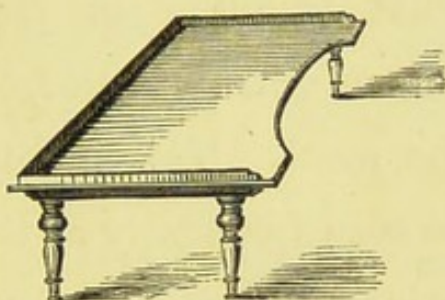
just as she observes how the patient may be affected. The nurse should cultivate the habit of paying particular attention to this matter.

Mr. Carter of London has an apparatus which in many respects answers better than the reading table now described. The writer was desirous of getting a wood-cut of this patent machine from the maker, but, as he had none suitable, it must for the present be left out. This apparatus, however, is not without its disadvantages. One great objection is that a weak person finds it cumbrous, and heavy to move about; again, the joints, springs, and hinges are so stiff that a different inclination is not easily obtained. When it is chosen, the lightest (with castors) ought to be ordered. But improvement might still be made in articles for the sick similar to that under consideration.

Fig. 3 gives a tolerably good representation of a light table suitable for an invalid in bed. When the sick person lies, or sits propped up in bed, such a table as this may be convenient to lean forward upon as well as for putting the food on it. The lighter it is the better. A board of about one-third of an inch would be ample in thickness to bear such weight or articles as would be re-

quired. The top ought to be perfectly flat, and there ought to be a light rim all round, as brought out in the figure, for the purpose of preventing any article slipping off. The edge or border next to the patient is bevelled or hollowed out, so as to allow it to come in

Fig. 3.



closely. The feet should be about eight inches in height, and made of as light material as possible. The whole length of the table should not be less than about two feet, and the breadth about a foot and a half.

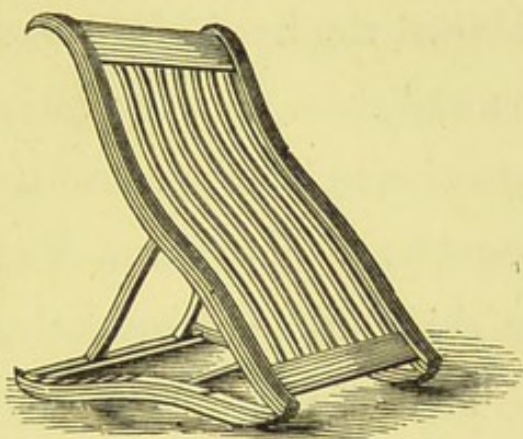
A simple article of this kind has often produced comfort and contentment, without which the sick person would be fretful and irritable. When the sick person is confined to bed, this little table may be used with great advantage. If the invalid is weak or tired when food is presented to him, and if he tries to help himself—and where is the invalid who will not attempt this, either to please his friends or satisfy himself as to how much he can do?—at all events, the result may probably be the same—he allows part of the food to fall on the bed-clothes, his own linen, or something else equally uncom-

fortable, which daily occurs, as every one who has watched the sick can testify. If this is the case, not only is the food unnecessarily destroyed, but, what is often of far more importance, the sick person gets annoyed, satiated, but without taking the meal. This is no fancied portrait, and it may be seen frequently at the bedside. Now, in order to reduce order out of the chaos here described, it would conduce towards this end if the little table is neatly covered over with a tray cloth, and the articles with the food placed carefully on it immediately in front of the patient. He is not disturbed with holding the vessel, but may help himself much more firmly and securely without much risk of being fatigued. This is, however, mentioned by the way, for it is impossible to give in anything like detail the many little things which are required to make the sick person comfortable. However, all sick people are not alike, and frequently we find that the use of such articles would have a different effect—some wishing to remain quiet, and are contented if left alone, without making any fuss or ado about them.

Figure 4 gives the outline of a support or bed-rest for

an invalid. It may be set to any inclination. The rest, when used, ought to be placed firmly against the head of the bed. A few pillows may be placed transversely or longitudinally between it and the patient. This apparatus will be found very refreshing at all seasons when there is sickness, but es-

Fig. 4.



pecially so in the summer. The fact of the sick person being able to assume the sitting posture, or nearly so, which this can give, revives his hopes and increases mental strength and energy. Who can value or know the good this may bring to the body, even if it alleviates in any degree? No one can wonder that such should be the case, for any little change will be most grateful to a person who has lain long, wearied of existence itself. A pile of pillows does not answer the same purpose in all cases, as it will be uncomfortably hot if the person's back is tender; besides, it is not nearly so convenient or supporting. When such a support is not at hand, a nurse must be able to extemporize such things at a moment's notice. Now, a good sup-

port for a simple change will be found in taking a light bed-room chair, turning it upside-down so that its back is toward the patient's, and its forelegs resting against the head of the bed. Any desired incline may be had thus, and the pillows ought to be put on as mentioned in the case of the support above, only there must be more of them. The nurse must try such means as this, perhaps frequently, before succeeding.

Windows
useful for
purposes
other than
light.

The windows are now made to open from top, bottom, or laterally. More rarely a useful mode is seen, but it can hardly be expected that it will become general; it is simply the plan upon which the windows of our churches are made to open, where the aperture is such that the quantity of air can be regulated with far greater ease, and directed to the upper part of the room along the ceiling in the first instance. This would prove an excellent plan for the ventilation of a sick-room, as draughts could be more easily prevented; and this is a matter of great importance, for some patients are particularly susceptible of cold, whereas with others much more freedom may be permitted. Then, when the window is opened from the top, which is very much better than from the bottom, the air is far more equally

distributed throughout the room, which, of course, is safest for the patient.

When the window is opened, it may be useful and advisable to have the door shut. The window-blinds, of whatever construction, should work smoothly and without noise ; in this respect those who wait on the sick have much in their power, for we daily notice the difference among servants and others in this matter ; *e.g.*, if the blinds are venetian, one will pull very abruptly the cord whose spring retains the blind in its place and the blind comes down with a crash, whereas one who knows how to go nicely about her work in the sick-room will, while pulling this cord, also steady the blind by keeping a firm hold of the cord that draws up the blind, so that she may let it down gradually and gently.

Attention to every item (small and great) important.

We can fancy how the sick become attached to one who attends to such little matters. The same attention should be bestowed upon the window-curtains.

Much has been written in condemnation of the use of carpets in the sick-room. In this country they are decidedly advantageous ; but, if they are not attended to, they are *then* worse than useless. The cry which has been raised against their use is based on

Are carpets bad in the sick-room ?

this, that because they are not kept clean they thereby help to spread disease. But this is a mere ill-founded supposition. Exception is not taken to the carpet itself, but to the keeping of it clean, and its uses in our climate are quite as numerous and ominous as easy-chairs, or sofas, in the sick-room. The arguments employed for dispensing with the one may be quite as effectually used for disposing of the other. The question then comes to be, Is there any possibility of keeping the carpet clean? The answer to this question will be found when speaking of the cleansing of the sick-room; but meantime it must be pointed out how the carpet ought to be made, for then there can be no doubt about the possibility of keeping it as clean as any of the other articles in the room. The present mode of fitting carpets is erroneous, and hence the difficulty follows. The carpet for a bedroom, now a sick-room, should be made so that it can be removed without raising the heavy pieces of furniture—as the bed, or wardrobe—which should, for practical purposes, in the meantime be regarded as fixtures.

Practice and
precept
ought to go
together.

If this principle were followed, and there is no valid reason why it should not be, the carpet

could be readily removed, and cleaned *thoroughly* as often as might be necessary. Instead of this, what have we? The heavy pieces of furniture placed *on* the carpet—of course requiring great effort to remove them and so take the carpet from underneath. Just, therefore, think of the unnecessary labour and delay following as the result of our present mode of carpeting. We need not, therefore, wonder they can be only properly cleaned once a year or so. They often retain dust and other impurities, just in consequence of not being attended to as they should. We believe it is perfectly practicable to keep carpets clean if they are properly made, and that the laudable tirades against their use, so frequent at present, are quite untenable.

It may be argued that the carpet gets often wet, consequently, that the moisture and damp emitted vitiates the atmosphere of the sick-room, which is already surcharged, and that carpets, on this account, ought not to be used. There is a method by which this also can be met, and met satisfactorily. Here, again, the nurse or person in charge of the sick is at fault, and does not know her work properly, or is inattentive, if this occurs; for, if there is any likelihood of this happening, the experienced nurse will

Want of
cleanliness
vitiates air of
sick-room—
not carpets.

have (if the frugal wife has not already) laid a piece or pieces of waxcloth, which will most effectually prevent injury in the way supposed. The carpet is useful in being most convenient, comfortable, and will be best for purposes of quietness, all of which are important, but sometimes specially so. What could we substitute for the carpets which are used in our sick-rooms? It is argued that hospital success depends to some extent on cleanliness, from the fact that they have no carpets on the floor and no paper on the walls, and that in private it should be the same. Now, this is a mistake; carpeted floors and papered walls are useful if properly kept. It is no substitute to take away the carpet and have the floor bare; no patient can be treated better by doing so, and it may be said that it would probably tend to the reverse.

"Tiling"
process.

There is lately in London, and some country mansions, a substitute for carpets found in a process of "tiling," but this cannot become general in this climate, because unsuitable. Tiling, whether it be with wood or stone, has insurmountable objections, and the carpeting system will answer every purpose quite as well as anything else, and even more so. If

those who have been loud in condemning them would, instead, use their ability in showing some practical method of cleaning them, it would be far better, and more to the purpose.

The wardrobe is sometimes useful in the sick-room, but there is no need of special comment on it here. It is handy for keeping towels and handkerchiefs, of which there should be an ample supply at hand, and its drawers also are useful occasionally; but here, again, a useful article must not be made a reservoir for other and improper things, and the nurse, or person in charge, must always bear this in mind. When the sick-room is small, the wardrobe or chest of drawers might be removed into the ante-room—if the illness is to be at all tedious.

It is a matter of some importance to notice the grate here; for how often is it found that any grate is thought sufficient for the bed-room, as the fire is used so rarely or never. Now, it is frequently seen by those who examine these matters, that when sickness comes, it is impossible to get the heat of the room raised to the necessary height, say 65° or 70° Fahrenheit.

In all probability, this is owing to the grate in

A place for everything, and everything in its place.

Are bed-room grates important?

some way or other, though of course sometimes to the exposure and nature of the building. Such has been known, and known frequently, to be the case, and has been remedied by means of a better grate.

This deserves merely to be mentioned here, in order that it should be at once remedied, and the sick person, for the time being, taken into another room where the proper desired temperature can be obtained. While speaking of the grate, it may be mentioned in passing, that the grate is for a bedroom, and, consequently, one ought not to be selected for cooking purposes, such as to boil water or to make beef-tea. All cooking ought to be done as far away as convenient from the sick-room.

Attention to
fire impor-
tant.

The fire should be properly attended to, regulated, and used for sanitary purposes, and for raising the temperature if required, but for nothing else. Now, for instance, if it was wished to have a stream of steam for moistening the atmosphere as well as heating it, nothing would be better than putting a kettle over a spirit-lamp and directing it where most needed; this is much preferable to getting it from the kettle when placed on the fire.

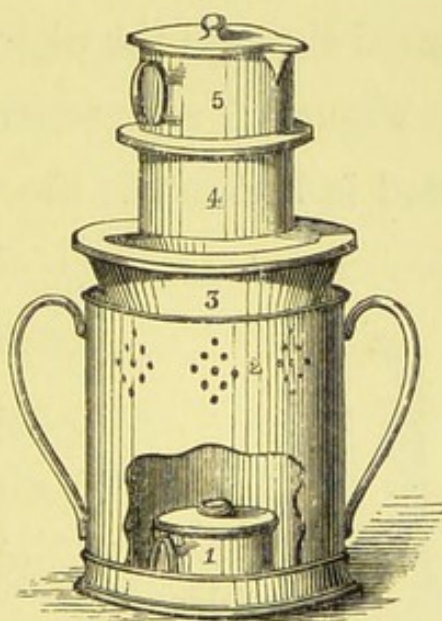
The chamber utensils should all be made of

earthenware, and always put away in those places specially set apart for them. Some improvement might be made on our present system, but all that we need say here is, that they should be immediately washed and dried after being used; never put past as if they were only to be washed just before being used again, which is very slovenly.

We now come to some articles which may be said *Night-nurse*. more especially to be suitable and necessary during

illness. Figure 5 represents a "Night nurse." It can be procured, made of tin, or china as this is, or with the body (2) you may obtain a small metal kettle to fit it. It is not difficult to manage, and is *very* useful during the night for the purpose of preparing food of any kind. It

Fig. 5.



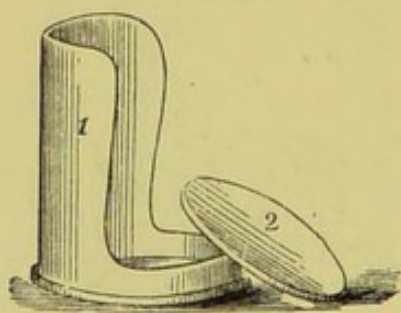
is easy to understand how to use it. Whatever is wanted to be cooked, or if warm water is needed, all that need be done is to put it into the part marked 5. The part 4 of it dips down into part 3, which must always contain water, while the heat is

applied from the spirit-lamp, 1 to part 3 being placed on the body 2. If we wish to keep it hot after it has been prepared, the flame from the spirit-lamp, as in the figure will be too great, but that from a "night-light" will be enough, and answer the purpose very well. The only precaution necessary is to keep plenty of water in 3, which will effectually prevent it from breaking. The "night-nurse" is useful also sometimes in the nursery—indeed, here it is almost indispensable, as infants often require food to be prepared through the night.

Night-watch
—trifles im-
portant.

Figure 6 represents a "Night-watch," now often used in bed-rooms the whole night long. The "night

Fig. 6.



light" is put on the part marked 2, which is placed in the socket of the piece 1, and preserves 1 from breaking if by chance the "light" has burnt quite down. When the

light is needed the front part is turned towards the patient, and when he does not require it, the part 1 is turned to the patient, and this effectually excludes the light from him, so that while he is shaded the little light is still burning. From its

great usefulness, this little instrument is sure to become more general in our sick-rooms. It is very cheap, and if people knew of it they certainly would provide themselves with it instead of placing a "night-light" on an open plate. Some light is really required, for the sick feel the night so long, and they weary for the day-break, and yet they must not have too much light. This is the faintest they could have, and yet it is enough to get anything with. This is the most convenient of all lights in the sick-room.

MEDICINAL GLASS MEASURES.

Sometimes the want of a measuring glass has cost a life, and cases of this kind are constantly observed in the journals. In the *Edinburgh Medical Journal* of this month (April, 1872) may be seen a case in point. It is now admitted that occasionally errors of a dangerous nature have occurred from carelessness, neglect, or accident, in giving "drops" as a dose when powerful medicine is used. A drop is indefinite, and varying according to—

Graduated measures best, because alone accurate.

Fig. 7.



1. The consistency of the fluid itself.

2. The thickness of the mouth of the vessel.
3. The person who manipulates the bottle.

It is, therefore, of the very greatest importance, that when the dose of a medicine is prescribed as so many drops, that a minim measure should be used. But here it must be noted that the direction should be so many minims (not drops, though drop and minim are used synonymously in prescribing), or perhaps a better way would be to dilute all those medicines which are so powerful that a few drops are only necessary for one dose, and make it a teaspoonful or so.

But here, again, a teaspoonful varies, some small, some large. For reasons similar to those mentioned already, a teaspoonful is a variable quantity; the standard medicinal teaspoon can be readily dis-

Fig. 8.



pensed with and the minim measure used, and it will save all liability to mistake—60 minims on the graduated glass measure being equal to one teaspoonful. The minim measure, figure 7, along with the graduated wine-glass measure, of which figure 8 is a representation, is all that is requisite or useful, and every one

who has charge of the sick, or who uses medicine, should possess both of them. They are so very cheap, and, besides, by their use terrible blunders will be prevented. The latter consists of an ordinary wine-glass graduated, with a lip, for pouring out any definite portion, if necessary, without allowing it to drop on the patient or otherwise, or wet the outside of the glass. But notice that you get one with this lip upon it : it should be upon them all, but unluckily is not.

As there is no secret or magic about medicinal symbols, in reference to measures or weights, it may be well here to introduce them, should the attendant wish to refer to them at all.

TABLE OF MEASURE.

Character or Symbol.

gtj or mj = 1 minim = one standard drop.

℥j (or fl ℥i) = one fluid drachm = 1 teaspoonful = 60 minims or drops.

℥ij = two drachms = two teaspoonfuls = one dessertspoonful.

℥iv = ℥ss = 4 drachms = 2 dessertspoonfuls = 1 tablespoonful.

℥j = one ounce = 8 teaspoonfuls = 4 dessertspoonfuls = 2 tablespoonfuls.

℥ij = two ounces = 4 tablespoonfuls = one wineglassful.

Oj = one pint = 20 ounces.

ss	j	ij	ijj	iv	v	vj	vij	vijj	ix	x	xj	xij
½	1	2	3	4	5	6	7	8	9	10	11	12

TABLE OF WEIGHT.

Character or Symbol.

gr.j = one grain.

 ϑj = one scruple = $\frac{1}{3}$ drachm = 20 grains. ζss = $\frac{1}{2}$ a drachm = 30 grains. ζj = one drachm = 60 grains (ϑiij .) $\zeta ss = \zeta iv$ = $\frac{1}{2}$ an ounce = 4 drachms = 240 grains. ζj = one ounce = 8 drachms ($\zeta viij$.)

lbj = one pound = 16 ounces.

Besides being accurate, these glass measures are so easily kept clean, and medicine sometimes discolours a silver or metal spoon very readily.

How to give
drink to a
recumbent
patient.

Figure 9 represents a drinking-cup which is of very great importance, and admits of general application

Fig. 9.



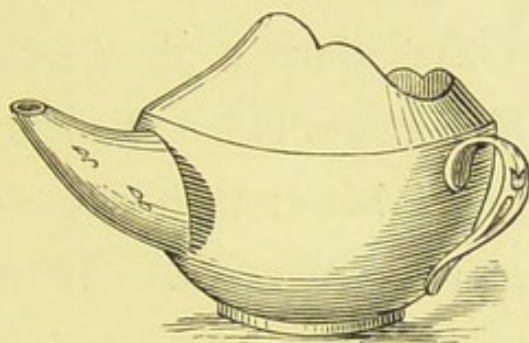
in the sick-room. Of all drinking cups this is the best as regards shape and pattern. Yet how often are they taken of a different shape. It is

the spout which makes this one better than the others. Those after this pattern are made of china or earthenware, but there is a useful small one made of glass or crystal, and it has a curved spout, which makes it equally useful.

Figure 10 points out the best of all those with a

straight spout, but this one is inferior to the one in Fig. 9 in its usefulness.

Fig. 10.



Any drinking-cup with a straight spout should not be taken, for they do not answer the purpose for which they were intended, namely, of feeding the patient without effort, nearly so satisfactorily as those do which have the spout curved.

When the sick person is lying with the head moderately low, it is next to impossible to give him a drink from a cup the spout of which is straight without spilling some, unless more than ordinary care is taken. At all events, any one who has been at the trouble to try the two together will find the one with the curved spout the more convenient. Still, there are large china warehouses where none but the kind with the straight spout can be got.

The spout of drinking-cup of greatest importance—why?

It is regarded as of no consequence, provided a drinking-cup is used, whether it is the one or the other, but it is certainly a matter of great moment for the sick person to get everything that will entail the least possible fatigue, and afford the greatest amount

of comfort. These little matters should not be overlooked in the treatment of disease.

Glass bent tube used instead of drinking-cup.

Sometimes a glass tube (medicinal) about eight or nine inches in length, bent at an obtuse angle, will be found better than any drinking-cup, and might be more convenient. It may be obtained at any chemist's shop for a few pence. When the spout of the drinking-cup, from its shortness, entails effort in order to be used, then this may be used to greater advantage. It is simply another form of a drinking-cup.

The reason why these minute articles are so much enlarged upon here is, that relatives, generally from ignorance, and nurses too (perhaps doctors ought not to be altogether excluded), do not attend to this sufficiently.

Figure 11 is a spittoon, and very important when there is expectoration of any kind, for it may be

Fig. 11.



necessary to preserve it until the doctor's visit, as he may wish to see its quantity or quality, or otherwise examine it. Those made of earthenware are again most

worthy of commendation. All vessels used for

holding effete or waste material should be made as much as possible of earthenware, and light and handy. The nurse should remember that all these products are not to be destroyed heedlessly and carelessly, but examined and preserved, if necessary, for the purpose of inspection and examination by the medical attendant.

CLEANSING THE SICK-ROOM.

Cleanliness lies at the very bottom of everything connected with the nursing of the sick, so that it deserves our most careful attention—it is *next* to godliness. For instance, how invaluable in relation to the person of the sick, to the nurse, to the various appliances, to the food, to the vessels used by the patient, and to ventilation. Now, it is the duty of the nurse, or whoever has charge of the sick, that she herself should look after these particularly. Not only should she *know* how to clean everything (this is imperative), but she must be able to *do* it. She must consider that there is nothing menial, however trivial it may appear. The life of the patient may depend on what she considers a menial duty, and which might therefore be left undone; at the same

Person in charge must see to cleanliness.

time it is but right and proper that she should be assisted as much as possible, so far as to save her strength for sitting up with and watching and relieving the constant wants of the patient.

Doses of
medicine
taking the
place of
Hygiene.

The effect of cleanliness is often marvellous. Many diseases originate from inattention to it, and simply require for their treatment that the filth should be removed. Yet, how many of this class trust to "bottles," "lotions," "salves," "*healing saw*," or "ointment," to heal a superficial sore, for example, which might after all be cured by cleanliness alone; and it is to be feared that such applications have not only been ineffectual, but frequently have increased the former mischief. Many do not think it necessary to attend to this, and nurses are among the number. Cleanliness, though it will not of itself heal every sore, will at all events always greatly aid, while, on the other hand, slovenly habits must retard the recovery, and entail more misery and suffering.

What is
cleanliness?
May it do
harm if
pushed far?

After all, perfection in cleanliness is a thing unknown, because the standard is always comparative; but the great fault is, that on account of imperfect training one person may fancy an article clean, while another sees it is really far from such. It is a very

easy matter to know a nurse who performs her work in the former or the latter way, especially if one is accustomed to see many, and physicians are particularly brought into contact with such circumstances as these, and often meet it both in families and among nurses, where it is little expected.

But now, to proceed to the practical part of this subject—ablution and dressing the patient. Before the nurse begins to this process, she must first attend to the temperature of the room ; second, she must have *all* she is likely to require *ready and at hand* ; third, she must be careful to preserve the patient from the influence of cold, by watching that there is no draught or unnecessary exposure of the patient ; and, finally, the nurse must save the patient from fatigue as far as possible. The sick should be washed or sponged every morning before breakfast, and the hair brushed or tidied, as the case may be. Generally this is best accomplished about eight or nine or not later than ten o'clock. The personal linen should also be changed then, if the patient is able to endure this without over-exertion, for the tossing or the perspiration during the night will render this desirable, and the change will be refreshing. Occa-

Attend to
personal
cleanliness.

sionally the body may be rapidly sponged, and quickly rubbed over with a bath towel (when there has been much perspiration) just as the linen is being changed. Nurses very frequently put on the linen without having it properly aired; this, no doubt, has often been more injurious than an open window, though the latter is often erroneously given as the cause of the chill. It should be a rule, without exception, that all the linen should be thoroughly well aired before being used. The same may be done at night.

Cleanliness
is refreshing.

The face, but particularly the hands, should be sponged with warm water several times in the course of the day, if they are hot or if there is a tendency to feverishness; or this may be alternated by allowing a small piece of ice to dissolve in the hands, or rubbed over them and the face, and immediately dried afterwards. This is both refreshing and soothing, as well as useful, in many cases of disease. The nurse should not only attend to this, but imitate the same principle in other and different ways. This duty must be performed by the nurse herself in all cases where there is great weakness, and she must on no account allow the patient to exert himself if feeble.

Bedmaking and Bed linen.—The nature of the

mattress has been already noticed—reference must here be made to the management of the clothes. If there is great heat, there is little necessity for putting the blanket over the mattress, though this is more or less customary, but what is more essential is to keep it as free as possible from *wrinkles*. The same observation applies to the under sheet. Wrinkles or folds on the clothes underneath the patient are painful to the person lying continuously, and, if there is much tenderness or weakness of the skin, these readily excite bed-sores. It is very necessary that the bed-clothes should be kept perfectly dry, as well as smooth, and for this purpose a macintosh and “draw” sheet are often used.

Wrinkles underneath patient a cause of bed-sore.

The macintosh is sometimes used under the lower sheet to protect the mattress, and sometimes above it to protect both, and the nature of the case must determine which is to be preferred. The macintosh is usually put beneath the under sheet, when the latter, from the nature of the case, can soon be withdrawn, if soiled replaced, and where it is of more importance to guard the mattress than the sheet, and *vice versâ*. The nurse should make sure that it is large enough for this purpose: this is principally judged by the copiousness of the discharges. When the discharges

Macintosh used above or below under-sheet.

are excessive and offensive, there should be at least two macintoshes, so as to enable a fresh one to be used when the other is cleaned, dried, and thoroughly aired. A draw-sheet is made up by folding and refolding sometimes a linen sheet or two, and sometimes a woollen blanket—the nature of the case determining the use of the one kind or the other.

How to
change the
macintosh.

The method of changing the macintosh and draw-sheet when the patient is lying in the bed is very simple, and is done as follows:—When the two are properly adjusted and rolled up—for this will generally be found most convenient—the nurse, standing on the one side of the bed, gently inserts them as the assistant who stands on the opposite side gently withdraws the used one. If the patient, however, is not able to give any help, the assistant must aid him to raise himself a little, while the nurse pushes the used ones from under him while she places the clean in their place. The fresh supply is then adjusted. There is no need of uncovering the patient during this process.

Mode of
changing
under-sheet.

There is perhaps more real difficulty met with in changing the under sheet than in any other article of bed clothing. There are various ways in which it

may be done. The sheet should be rolled up to about one-half, and begun at the top of the bed, commencing to unroll it at the pillow, while the dirty one is taken down before it, the clean one gradually taking the place of the other from above downwards, the patient being gently raised, and after it is down a little over one-half of the bed there will be little or no difficulty met with, and it can be easily adjusted. It will require at least two to help the nurse in order to do this effectually. A similar plan may be followed by reversing the process, namely, commencing at the foot of the bed. A third may be mentioned, as it will be found to answer quite as well as, if not better, than either of the former. It is this: to begin at one side of the bed, the patient lying at the other; when one-half has thus been arranged, the patient can be removed to this side, and the rest completed. It is only, however, in particular cases, where motion would not be injurious, that this latter mode could be advantageously followed.

Perspiration of the patient has been incidentally referred to, and when it occurs the bed linen requires to be changed morning and evening. So little is this regarded by those who have charge of the sick, and

Ignorance
of method
a source of
waste.

even nurses, that one occasionally sees cases where the linen soaked with perspiration is merely arranged and tidied, when even any sum of money would be heartily spent in getting anything for relieving the patient, whereas a simple change such as that indicated will be of great value.

Damp sheets should be aired, but not in sick-room.

The damp sheet should be removed and taken into another room, properly aired and dried, and made ready for use at night again. When the perspirations are so great, the patient will be much relieved if changed into the unused and ready prepared bed; but, if there is not a second bed, a well-aired and warm sheet must be substituted for the damp one, in order that the sick may be kept comfortable.

Pillows require care, not mere huddling together.

The pillows should then be put to rights, as well as the bed clothes, and the only thing that needs to be particularised about them here is that they should always be light and warm, according to the season of the year. The nurse must make all necessary haste, but neither bustle nor hurry should be permitted, because it will annoy the patient more than the whole dressing. To prevent this, the linen should be all ready at hand, and prepared before commencing the making of the bed.

The temperature of the room should be regulated and attended to before the dressing is begun, that there should be no rushing about and slamming of doors during the process. When this is all finished, the patient should rest for a little, and the different articles to be hereafter noticed should be cleansed. When the patient is revived, breakfast may be proceeded with. After breakfast, if the room be darkened and quietness secured, the patient may get a refreshing rest.

Nurse to have all prepared before beginning.

But let us suppose that the patient is able to be changed into another room—for example, for an hour or two—which, in the great majority of cases of sickness, will not be too much. An opportunity such as this affords must not be allowed to pass without being taken advantage of in thoroughly cleansing the sick-room. There can be little difficulty in accomplishing the object in this case.

Thought necessary.

Whenever the patient leaves his room the bed-clothes should be at once set on the backs of two chairs, which have been placed for that purpose in immediate proximity to the window, opened to the full, so that there is free access between the air outside and within the room. The mattress and pillows

Chamber utensils to be emptied, but not into slop-pails.

should also be turned so as to be well exposed to the air, in order that the dampness from perspiration and other causes may be removed. The chamber utensils should next be attended to, and emptied, not by means of a slop pail, which no nurse should permit to be brought into the sick-room, but by carrying each away, discharging its contents, rinsing and drying it, and returning it to its place again.

There is a right and wrong way of doing things.

Great differences are seen in the way that the grate and all its accompaniments are tidied. The best method for removing the ashes is first of all carefully to collect the large pieces of coal and cinder, and then to draw out the ashes very gently; the ashes being then collected together, if due care is taken, the whole may be removed without diffusing them through the room. An inattentive nurse or careless servant is often seen going about this and other such matters apparently trifling in a very hurried and slovenly manner (having an untidy napkin rolled round the head to preserve their own hair rather than the atmosphere of the room and the patient), the consequence being that a cloud of dust is sent broadcast over the room, and when it is deposited (more or less of it being breathed by the patient), the room is almost in

a worse state than it was previously. This is in no sense cleansing the sick-room, and cannot form any part in nursing, but rather a process whereby the disease is aggravated, certainly tending to shorten the patient's life. The careful attendant will be able always to prevent the ashes spreading in this way ; thus, if all else fails, a piece of newspaper laid over the upper part of the grate will generate a stronger current at the lower part, and so effectually that the suction will carry away all the dust that arises ; this will not be necessary with ordinary care. Still, if it is so hurriedly gone about as to send a quantity of the ashes through the room, it will be better to leave it alone until more time is got to do it more leisurely and attentively. The fire should be trimmed and the irons neatly arranged.

The carpet comes next in order, and should receive minute attention. The following is a good plan for cleaning the carpet:—Let us suppose that it is Monday morning, and the patient able to be removed to an adjoining room. After damp tea leaves have been strewn all over the carpet, which absorbs the greater part of the dust, it should be well switched. During the other days of the week it is sufficient to

Can carpets
be effectually
cleaned ?

wipe it carefully over with a damp kitchen towel. It is necessary in performing the latter that the towel should be turned bit by bit as the carpet is cleaned, in order more effectually to pick up the dust. The towel should be made damp by having it dipped in water and wrung; if this is properly done, little or no moisture will remain on the carpet, or, by evaporating, vitiate the atmosphere of the room. If the attendant finds the exertion of bending on the knees to carry out this plan too great, the towel may be wrapped round a carpet brush. This is the only admissible plan when the patient is unable to leave the room.

This process should be gone on with weekly, or until there be a convenient time, in about a month or so, when the carpet, if made according to the plan already alluded to, should be raised, carried away, and well beaten.

Shape of
carpet not
immaterial.

If a mode which is as nearly as possible similar to what has now been narrated, were adopted, it would certainly keep the room as fresh as there is any need for, and many of the objections urged against the use (more properly abuse) of our present carpeting system would be silenced.

Perhaps there is nothing in the cleansing of the

sick-room that is so often neglected, and at the same time of so much importance, as the condition of the windows. It can be readily perceived that should all in the sick-room be thoroughly cleaned, and the windows merely serve for diffusing the light, without at the same time being useful for purposes of transparency, it will take away proportionately from the comfort of the patient. Cleaning of the windows, therefore, should never be forgotten, and it is better to err on the side of cleaning too frequently, because it will show completeness in the cleansing of the sick-room, and in addition it will afford much happiness to the patient.

Dirty windows a cause of depression

After the curtains have received some attention, the bed (for be it remembered that we left it, when speaking of it before, with the mattress turned up) should now be made, and the cover laid upon it; or, sometimes it is usual to leave it with the clothes turned down, ready for use, though this is objectionable, if the patient remains up for any length of time.

Dusting furniture requires to be learnt.

The furniture has then to be dusted with a towel; mere whipping is of no use, and some care is necessary here, just as in the case of the carpet. It is absurd to suppose that mere whipping with a towel can remove

the dust which has settled on the pieces of furniture, and no one can have recourse to this who has any consideration for the well-being of the sick person. The proper course is to fold away the soiled part of the duster every now and then, and, when required, to shake the dust from it, which should not be done in the room, or perhaps it would be better to use a couple of dusters.

Cleanliness
and good air
ought to go
together.

During all these manœuvres the window is freely open, and should be allowed to remain so, in order that the minute particles of dust floating in the air may be carried away by the current up the chimney, and thus the air will be as free as possible from the dust consequent upon the cleaning of the carpet.

Slovenliness
and filth a
cause of want
of appetite.

As soon as the furniture is cleaned, and before the patient returns into the room, the temperature of which should be regulated and raised to the requisite standard, all the vessels, such as the drinking cup, medicine glass, and whatever else the patient may be using, should be again wiped *inside and outside*. We say *again*, for, as it will be seen afterwards, it is an indispensable rule in *nursing* that every vessel, when once used, should be immediately washed, and *never* left over until again required. *Do nurses attend to*

this rule? Trifling as this may appear, it should never be forgotten, for if the outside even of a cup or tumbler is not clean, be the cause what it may, it is frequently the origin of the "no appetite" and the "bad digestion."

From all that has been said, it might at first sight appear unnecessary to mention that in order to secure *cleanliness* the attendant must always be on the watch to use the water for cleansing and other purposes, pure, and plenty of it. The towels should all be clean to begin with. As no one is infallible, not even the best and most careful nurses, any person who has charge of the sick will be stimulated when reminded of these things; but the frequency of using doubtful articles justifies the exposure of this practice. Besides, the energies of the attendant is in a measure frustrated if there is want of care in this particular.

Disinfectants, Deodorisers.—The substances which can disinfect or deodorise are of great value in the nursing of the sick. Every nurse or head in charge should make herself acquainted with some of them, and the principles on which they are based. Disinfectants and deodorisers have often been so errone-

Pleasant
odours worse
than useless
unless there
is plenty of
air.

ously used for the purpose of concealing offensive smells and the like that slovenly habits have been engendered on the part of the attendants of the sick. But this is truly an abuse, and no sane person will now think of denying that when both sets of substances are judiciously used they are of the greatest practical utility. All surely will admit that carbolic acid, for example, has the power of neutralising the germs of organic matter and of preventing putrefaction.

Difference
between Dis-
infectants
and De-
odorisers.

What, then, is the use of disinfecting and deodorising substances? A disinfectant has the power of destroying or neutralising poisonous organic matter by means of some chemical change; whereas a deodoriser possesses the property of neutralising the smell, but not in virtue of any chemical process. The former class (solution of carbolic acid, solution of permanganate of potash or Condyl's fluid, chloride of lime, and fumigations with sulphur) is of decided benefit when used where there is any infectious disease, such as, for example, in the exanthematous fevers, and puerperal fever; the latter class (eau-de-cologne, rose water, lavender water, and smelling salts,) cannot be objected to if used discreetly. Surely anything which would

qualify a disagreeable odour will be a source of enjoyment.

The nurse, however, must never trust to these substances by themselves, but have the influence which leads to their use removed. The offensive thing, and the smell, should be removed; and, no doubt, fresh air is the best disinfectant and deodoriser of all. Every one who has been at all conversant with the sick-room, and watched a patient for four and twenty hours, must have observed that there was decided need for deodorisers, if not disinfectants, even where the strictest attention has been paid to the admission of a plentiful supply of fresh air—and this is as necessary to attend to for those in charge as well as for the patient himself. If disinfectants were more judiciously used, we might hear less of the “sick-room airing the house;” besides, antiseptic substances are useful also for thoroughly cleansing unoccupied rooms and uninhabited houses.

Nurse
should re-
move cause
of impurity.

The practical method of cleanliness, as now merely delineated, although it cannot stop disease, yet it will do much to alleviate the suffering of individual patients under our care, and tend to prolong life. A thorough understanding of this subject on the part

of the nurse is the surest, and probably the only true aid to the proper management of

THE VENTILATION OF THE SICK-ROOM.

Keep air
within as
pure as the
air without.

In a practical work of this kind, the theory concerning the gases inhaled and exhaled may well be omitted. Every person will admit that air is indispensable for our existence, from the time of birth till the end of life. It will also be conceded that the purer the air is, and the freer it is from contaminated matter, it will be better adapted for sustaining health. Where there are apparent exceptions to this rule, other considerations will be found which will account for these differences. From what has been said, the questions arise—What is pure air? and, Where can it be found? The answer to such questions involve chemical analysis and climatology, subjects which are foreign to our present object.

Regulation
of ingress
most neces-
sary.

The great desideratum for us to determine is, *how to keep the air inside the sick-room as pure as the external air, and at a temperature suitable for the sick person.* The difficulty we have to contend with, in attaining this object, arises from the fact that the sick vary so much, are so differently affected, and are

so sensitive to external impressions. Manifestly, what we have to do is to regulate the ingress of external air, so as to keep up a uniform atmosphere in the sick-room, thus preventing an accumulation of organic matter.

In order to accomplish this, the inlets and outlets must have a certain relation to one another; for, it is very evident that, if the former do not permit enough air to enter for respiratory purposes, not only does the atmosphere in the room become surcharged with noxious material, but the vital properties are proportionately too little. At present we have no practical means for accurately ascertaining the amount of organic matter in the sick-room, or its purity—thus performing a somewhat similar part to what the thermometer indicates with regard to the amount of heat. Dr. Smith is doing good work here. He has invented an instrument of this nature, which, if found practicable, cannot fail to become one of the greatest discoveries of the age.

Necessarily, at present, we require to a great extent to leave the ventilation of the sick-room to the prudence of the sick person or his attendants. All can bear testimony to the deceitfulness which this

At present
feelings of
patient or
attendants
the only test.

entails. The senses may become blunted ; the nurse, or attendant, remaining constantly beside the patient, may be impervious, as well as the patient, to the true state of matters. She may trust to her own feelings, or to those of the patient—and, how frequently fallacious. The sources of error thus engendered are numerous, and occasionally serious.

See that the communication is perfectly free.

The practical point that the nurse must ever bear in mind, is to see that the inlets communicate more or less *directly* with the atmospheric air. The manner in which this may be accomplished will vary, according to the construction of the house and the nature of the case. It may be taken for granted that every private house has windows on both sides. When the construction of the house is different from this, the attendant must see that the atmospheric air, in getting ready access to the sick-room, does not pass over passages where effluvia can possibly be carried with it. It will not, for example, be airing the sick-room at all to open up a communication between it and a corridor, unless the corridor itself is thoroughly ventilated by an abundant and constant supply of atmospheric air.

There has been great objection taken to our present mode of constructing houses with regard to their venti-

lation, which really is chiefly owing to our climate. The difference between summer and winter is so great that any artificial method of ventilation which has been proposed is not so practicable as to repay the trouble.

Architects are very desirous to use every means in their power to secure better ventilation, and, if a more satisfactory method was found, it would be readily adopted. Without finding fault with what science has as yet accomplished, our duty is to consider how ventilation can best be secured under existing circumstances.

Are architects at fault for our present system of ventilation?

The chief outlet in every room is the chimney, and, as we are considering a pattern sick-room, it must have one, of course. The inlets are generally crevices, such as at the window and doors, and, in public, and occasionally in private houses, there are "ventilators." Under ordinary circumstances these (the inlets) should be as nearly as possible equal to the outlets, so as to keep up a state of equilibrium. If the weather at all permits a fire to be used, it will create a current, whereby a portion of the air in the room is carried away, and an equal portion enters by the inlets. If the season of the year does not permit of a fire being used there, it will be necessary to have the inlets, or

Have outlets and inlets equal.

communication with the atmospheric air, much greater than the outlet. We have also to make allowances for the peculiar idiosyncracies of individual patients. Many cannot sleep unless their window is partially open during the night all the year round; others cannot permit it to be open at all. Both are exceptional, and can never be put forward, one way or another, as a pattern. It has been said that, in good ventilation, the patient should "*feel* the air moving over his face;" but such a system would be most injurious in the great majority of cases in all seasons of the year, unless the weather is very warm, when the balmy air is both soothing and invigorating.

DRAUGHTS.

Draughts injurious; but some beneficial.

Throughout the greater part of the year, a current of cold air, forming what we know by the name of "draught," will be highly prejudicial, if the patient is exposed to it. In this case we have either to make the inlet communicating directly with the atmospheric air so small as not to be perceived by the patient, or have the admission of air so diffused before it comes into contact with the patient that it cannot be said to form a draught. In the former the window may be

kept down $\frac{1}{8}$, $\frac{1}{4}$, $\frac{1}{2}$, or 1 inch, as may be required, and in the latter, while the apertures of inlet cannot be obtained in the sick-room, we may secure the same by opening the window of the ante-room, or any other room which may be adjacent to it. Sometimes a window of the ante-room may be partially opened, and so may the window on the opposite side of the house, the sick-room being ventilated indirectly. In those private houses that have special ventilating apparatuses, these should be used to regulate the ingress of air; but generally we find that, when these ventilators are required, they often "don't work," and so can rarely be depended upon.

Provided the attendant would watch the effects produced by the opening of a window, and not forget to shut it (but this is very rarely the case), this plan would be the best for regulating the ventilation of the sick-room. But, how frequently do we find patients attributing the getting of cold to this cause—and justly too, as there is no reason to doubt it. Whenever the fresh air is admitted more or less directly, as we have supposed, the nurse should be careful to keep the patient warmly clothed—though this of itself, even when in bed, cannot protect him,

The sick
person often
not believed.

under all circumstances, unless great care is observed in keeping the air from "moving over his face." Direct "draughts" may be prevented from influencing the patient by means of the bed-curtains, and otherwise.

Air inside
sometimes
better than
air outside.

It may be inferred, from what has been said, that the difficulty in regulating the ingress of air arises from the atmospheric air being of such a low temperature that much of it would be injurious to the patient; yet, during the summer, we may get it naturally at a suitable temperature. At other times it is injurious, in two conditions, at least—first, in very hot, sultry, suffocating atmospheres, such as may be observed in London during the hot season; second, in the thick choky fog which occurs occasionally in the winter months in our large towns—such as Manchester, London, and Glasgow, where the air inside our houses is really preferable to the atmospheric air.

Air in motion
necessary
for good
ventilation,
though not
perceptible.

To secure good ventilation, the air must be kept more or less in motion. But this is frequently not attended to; and, in order to cover a smell, which might be easily removed if this principle was understood, sick-rooms are filled with the smell of deodorisers—such as eau-de-cologne and toilet vinegar, which really take the place of the wholesome air,

and must prove very hurtful to the patient, as may be readily perceived when one enters a sick-room from the fresh air. Some method of indirect admission of air must be followed when neither the window nor the door can be opened sufficiently, in consequence of the prejudices of the patient, or sometimes when the air is so close and warm that it makes the patient perspire, or produces difficulty of breathing. It is by putting the air in motion, and throwing it upon the patient in a particular form, that fanning is so useful; while motion, again, may act as a purifier from the current expelling more or less of the foul air and giving space for purer. An artificial current of this nature is only had recourse to under exceptional and peculiar circumstances, it being understood that the inlets and outlets cannot produce it in these cases.

It is a fallacy to suppose that night air is bad: indeed, the reverse is probably the case. But there is as little doubt that the air during the gloamin and the early morning is often dangerous, on account of the sudden change. We have every reason to suppose that, in our towns, at least, the air is as pure, if not purer, during the night than the day; and there

Night air is
not bad, but
air during
transition is.

can be no doubt that the sick-room requires ventilation as much, if not more, during the night than the day. So far as experience goes, it would seem to show that our sick are most easily affected, because weakest, in the early morning and gloamin, so that the nurse requires to be particularly careful of the ventilation of the sick-room, as well as of the general wants of the patient, at these times. A moist atmosphere is sometimes required in private sick-rooms, but oftener in hospitals, and it would be well for the nurse to be able to obtain this on the shortest notice. This can be readily done by means of a spirit-lamp, and a small kettle of water set over it, and brought to the boil. The stream of steam sent out should be directed to where it is most required ; but this is not a substitute for fresh air, which must be admitted as before.

Darkness,
dampness, or
effluvia in-
compatible
with good
ventilation.

It is next to impossible to ventilate a dark, damp room ; but, if unavoidable, an abundant supply of fuel, and plenty of fresh air, is the only way in which this can be done. The sick-room should *never* be used for airing damp clothes ; there is more than enough emitted from the patient to render the air impure without increasing it in this way.

It will be a great vexation for any one who has

charge of the sick-room—and, indeed, labour in vain—to attempt to keep its air fresh and clean and pure, if the other parts of the house (for example, the other bed-rooms, servants-room, and cellars) are allowed to remain with heaps of dirty clothes and stuff accumulated in them from time to time, retained with the view of being ready at hand at any instant (“just out of the way”); but they have been lying there for months undisturbed, and may remain for as long again, while, in the meantime, such breeds all sorts of insects, and the like. The proper plan would be to put past all useful things in their own proper places. “A place for everything, and everything in its place.” Let an illustration of this be here given. The writer, on being asked to visit an invalid servant lately, found that there was feverishness of the system; and not until a day or two had elapsed did he detect that, underneath the servant’s bed, there was accumulated a quantity of sticks for the fire, dirty old clothes, and mouldy shoes, from which emanated an effluvi-um of a disagreeable nature, and, on informing the mistress that the room should be cleaned, the suggestion was at first taken amiss, but fully carried out, and the patient soon recovered. Examples of this nature

A place for everything, and everything in its place.

are known to all medical men, but one must be careful how the subject is introduced, because mistresses and servants are naturally very sensitive on matters which affect them so closely as this.

Disparity between inlets and outlets causes bad ventilation.

When there is a considerable disparity between the inlets and outlets, the smoke is not carried away. Occasionally this is said to occur when the wind comes from a certain direction. Whatever be the cause of "the smoke," whether it depends on the difference in the ingress and egress, or on the construction of the chimneys, the person who has charge of the sick must do all in her power to have it removed, without, at the same time, dispensing with the fire. She must endeavour to remedy this by trying to make the inlets and the outlets as nearly equal as possible—at least as far as necessary—and so create a current sufficient to convey the smoke up the chimney. Generally it will be found enough to open the door, or an inch of the window either up or down. But, how frequently is it an excuse for their being no fire to say that "the chimney smokes." This is one among many things pointing out that the attendant should never spare "pains" or trouble in ascertaining

the *true* cause, and having it removed as soon as possible.

LAVATORIES.

There can be little doubt that lavatories are among the most useful and handy contrivances in modern household arrangements, but, when inattentively used, are fruitful sources of bad ventilation. If the sewage pipes are not so constructed as to convey their gases into the atmospheric air—which they very rarely do at present—then all the gases which the pipes contain will emanate into the rooms when the cock is allowed to remain open, after the waste water has run off. Do nurses attend to this? Do the members of private families attend to this? Do we know what injury has been caused in this way, or is it of any consequence whatever?

Never leave the sink of lavatory or wash-stand open. Why?

Confined and impure air is hurtful alike to the physical conditions and mental faculties. It may be laid down as an axiom that *whatever taxes the senses is prejudicial*—no matter what the special sense is.

Bad air influences body and mind.

TEMPERATURE.

While the air in the sick-room should be kept as pure

Chilly atmosphere
not good
ventilation.

as the atmospheric air, it does not require to be of the same temperature, as might at first be supposed. For regulating the heat in the sick-room we have a test perfectly sufficient in the thermometer. Not only will this be found useful when the air outside is colder than the air inside, but also when it is hotter. Cold or hot air is not ventilation, but it is essential that we should regulate the temperature when we admit fresh air.

Temperature
not the
criterion of
ventilation.

When the atmospheric air is below the standard required for the sick-room, the nurse is not to prevent its ingress, because it will lower the temperature; but she must use means to raise the temperature while it is admitted. This is generally done by means of the fire, or other artificial heat-givers. Nor, on the other hand, when the room is hot or close, is she to allow the fire to go out, but permit the ingress of *atmospheric air*. It may be right to let the fire go down a little; the thermometer, and it alone, is sufficient to guide the nurse in this respect.

No sick-room can be
efficiently
managed
without a
thermometer

There should be, therefore, a thermometer in every sick-room: indeed, in every place where it is necessary for the temperature to be observed and regulated. It

is so simple in its application, and, withal, so sure, and yet necessary, that every person who has charge of the sick should make themselves familiar with it. The temperature which is found to be most suitable in the great majority of cases ranges from 60° to 70° Fahrenheit.

CHAPTER II.

NURSES AND NURSING.

IN modern times, medical science, in all its departments, has been rapidly progressing, and perhaps the department we are about to consider has been the most stationary of all. Has there been any special effort made by the profession towards reform in this respect? Have there been special meetings convoked to consider how the standard of nurses could be elevated, or made more attractive? In short, what advancement have we made during the last twenty-five years—nay, even within the last three centuries? Have we remained stationary all this time; or are we retrograding? It is presumed that it will be readily agreed to that this department of medicine is far from being perfect, but these questions must be left to the conscientious meditation

of the reader, for it is not the purpose of this inquiry to enter upon them.

It is quite evident, from cases on record, that many lives have positively been sacrificed by the ignorance and carelessness of the nurse, and it is most pressing and urgent that this state of matters should be fearlessly exposed. Of all duties towards our fellow-men, those which the nurse has to perform are the most beneficent and onerous, and which, if done conscientiously, there does not seem to be any good reason why nurses should be spoken of in terms of strong disapprobation, as is so commonly the case. There must, therefore, be something wrong either with the nurses themselves, or with the recipients of their care, or with both.

It has been "seen somewhere in print that nursing is a profession to be followed by the 'lower middle class.'" So it is said in the introduction to the *Memorials of Agnes Jones*—an introduction beautiful in style and expression, and calculated to inspire the reader with a portion of its enthusiasm and zeal, the writer of which is so familiarly well known that it is quite unnecessary to mention her name. The generality of our nurses will not dare to deny the

"She did it for the best," no real excuse for allowing one to die.

Class distinction worthless.

charge here brought against them : indeed, they know that when they entered their profession their status was really not so high ; but a few have raised themselves from the place they originally occupied by conscientious industry and devotion.

Choose
always for
the work's
sake.

It may be said with assurance that the majority of our nurses have chosen this profession from purely accidental circumstances, *or were driven to it from having been all but defeated in everything else*, and selected it as most likely to afford a respectable and genteel, if not the easiest, means of subsistence ; while a few have decided to follow it when suffering from domestic or personal affliction. The reasons for the choice are various, and often most erroneous.

However, objection ought not to be taken to those who make this choice, but rather every effort should be made to train them *thoroughly*, thus leaving all class-distinctions alone. What is really wanted, is, persons to enter it who love the work for its own sake, and who see their way to follow it out devotedly.

"Born
nurse?"

There is a popular saying that "no one can be a good nurse unless she is a born-nurse." Certainly nature bestows gifts of a special kind more on one individual than another, so that each bears his own characteristic

individuality ; but, undoubtedly, this saying has done more to foster popular prejudice against nursing, and so prevent many from entering into the ranks, merely because *they fancied* that they were not "born-nurses." Many have fallen on this stumblingblock.

There is no very marked difference between nursing and any other calling in the universe, no more than what belongs to its own kind. Over-ruling Providence shapes particular minds for certain duties and spheres of usefulness in the world—the mind of one being specially inclined to follow a particular path or line of conduct which points out to him what he is most suited for, and so enables him to choose the calling for which his talents best fit him. This much, and this only, can be safely admitted in the present case. Would it not be absurd to suppose such a being as a "born-engineer," or a "born-joiner"? The power of making a woman of average talents and health, who chooses this profession, a good nurse or otherwise, is to a very great extent in herself, provided she has the needed opportunities to acquire the necessary knowledge. Very much will depend on her application, if able to bestow undivided attention upon it. Where can we find an example to disprove this? No

Application
always
essential.

doubt, if there are born-nurses (*i.e.*, persons with extraordinary aptitude for nursing the sick), they will be welcomed, and, let us hope, duly appreciated; but it may be truly said that it is the great application, energy, and discernment, after all, that makes them such; indeed, those who are patterns in this sphere have themselves recorded that such is the case.

When any woman chooses to be a nurse—whatever be the grade of society to which she may belong—every means within her reach must be diligently prosecuted, in order that she may be thoroughly trained and prepared for the task; and, afterwards, if possessed of the necessary qualities, and if conscientiously applied, she, too, will get the deserved appellation of “born-nurse.”

Such questions most important to settle.

The question of whether our nurses belong, or should belong, to this or that class of society, is manifestly surrounded with much difficulty; but it is necessary to enter upon it here, more or less, for the purpose of stimulating our present nurses to further diligence, so that, by unflagging zeal, they may improve themselves, as well as to enable those who are making, or may yet make, this choice, to do so

with greater facility and confidence than seems to be the case at present.

In dealing with this subject, there are two preliminary considerations which are forced on our attention—namely, Character and Elementary Education.

Character
and Educa-
tion neces-
sary.

There can be no dispute regarding the fact that much of the efficiency of the nurse depends upon her character. Unless a woman's character is blameless, humanly speaking, it is needless for her to think that she can occupy a prominent position as a nurse. It is difficult to write in detail what the character of a nurse should be, but the general principles which should guide her may be mentioned here. More than this would be tedious and unnecessary. But, in the present day, if a nurse's character is not such as it ought to be, concealing the bad is unnecessary, as it will be found out. The sick know a great deal more than the nurse fancies they do.

It must be remembered that the illness which requires the attendance of a trained nurse is generally of a serious nature, so that prompt and conciliatory measures must be enforced. Therefore, it will surely be right to suppose that the nurse's actions and

motives ought to be such as to find acceptance with the patient. There is nothing that will try one's patience and test one's character more than nursing, and it becomes every nurse to have some solid basis to stand upon.

Higher or
better work
than nursing
there cannot
be.

But, it may be asked, How is a nurse to use her talents? Manifestly not in talking, but in action. Just as there is no greater trial for one's character than nursing, so it would seem that the test of this character is equally plain—"by their fruits ye shall know them." The moral duties and actions of a nurse will sufficiently designate her real Christian character. It is really necessary to notice this particularly here; for sickness may be the means of producing wonderful changes for the better, when sanctified to the different members of a family. It is not the nurse's place to dictate or point out how these changes should occur (unless, of course, it is a relative who has the charge); but, by her attention, and her constant desire to assist, much may be gained. Patients notice the spirit in which things are done, and so the nurse's work is made acceptable and pleasing. Much talk is useless.

Necessary
qualities.

Therefore, it becomes every nurse to be *honest, truthful, sober, forgiving, humble, patient, peaceable,*

obedient, cheerful, sympathising, kind, firm, and gentle. If the nurse wishes to profit, she must reflect upon these different qualifications, and examine herself to see whether she possesses *all* of them or not. If not, she should either abandon nursing altogether, or set about cultivating them individually; for which of them can be dispensed with as unnecessary, or that cannot be attained? But these, indeed, of themselves will not make any one a nurse, while, at the same time, they are essential. The duties of a nurse are peculiarly trying, so that she will not be able to continue unless she has a high sense of her position. It is beset with much bodily fatigue and endurance, as well as mental anxiety. Besides, there are other duties which prove most irksome and disagreeable as well as family failings, eccentricities, and peculiarities of temperament, for there is no use "mincing" or hiding that such is not the case. Everything must be met in the same determined and self-denying spirit.

The position which the nurse holds is one of *trust* and *responsibility*, not only in relation to the case of sickness itself, but also as standing between the sick person and others. There can be no doubt regarding the vast importance of being able to take the manage-

A position of
trust and re-
sponsibility.

ment of the case; but how can the tittle-tattle, so common and so fruitful of mischief at present, be stopped? Gossip, no matter what form it may take, is certainly one of the most pernicious failings that a nurse is liable to fall into. There are *very* few who do not fall into this betimes. There is no station, probably, where gossip is more easily detected than that of a nurse, as she is so often spoken of in various aspects; and, in consequence of this practice being so much despised, every sensible nurse should make it her *special* duty to know how to shun all such *vain babblings*, which generally bring mischief on herself, as well as others, whether unconsciously or not.

Knowledge
of character
most useful.

The nurse must find out the general aim of the sick person's desires, when they are able to converse with each other; and it may be put down as a general rule that the nurse should never repeat anything she may see or hear about other people. But, if there is an object of interest or usefulness, give information about it—but no names. For it was not told for the purpose of being “blazed” about, and narrated to all and sundry. Sometimes she may meet patients who have aching ears for the affairs of her neighbours, and will, through subtlety perhaps, invite the

nurse into this field ; but she must on no account enter.

While gossip is strictly prohibited, it is necessary Shun gossip. that there should be a certain amount of freedom between the patient and attendant on things in general, but her only plea for inquisitiveness consists simply in finding out how she may best alleviate his suffering. She must be grave, not gloomy ; certainly not double-tongued ; not given to wine nor gain ; but meditate on carrying out the treatment in detail, giving herself wholly to caring for the sick : in this way alone can she make her profiting appear to all as a work-woman "that needeth not to be ashamed."

Every nurse should lay the following down as an axiom, or indisputable rule—namely, that she ought Don't volunteer rash statements. to speak well of all people, or say nothing at all about them. What she does say should be said with great care and prudence. The person who thus wishes to do good, we should suppose, is acquainted with very few who have *nothing* good that is worthy to be spoken about ; if not, it is scarcely worth the trouble to spend one's time speaking about them, for it would be better employed otherwise. The person, therefore,

who has the charge of a patient, has various ways of shunning idle talk.

Person who cannot read writing should not be a nurse.

Second to none in importance of the qualifications for a nurse, is a thoroughly good elementary education. Be the nurse's character ever so good, what will it avail if the patient dies through the ignorance of the nurse? The patient may be killed by a mistaken dose of medicine, or even a mistaken medicine itself. The importance, therefore, of being able to read can never be over-valued in any one who has charge of the sick; indeed, it should be a *sine qua non* that they should be all able to *read and write*. How many of our present nurses this single requirement would cut off! This ought not to be the case. Mental culture will aid the nurse in many ways. She will not only be able to improve herself morally, but it will also assist her in her special sphere as *a nurse*.

Sympathy necessary. What is it?

Further, the person in charge must learn to look upon disease, even the most trying and horrible, without either disgust or fear. Now, it is perfectly compatible to do this and have a fellow-feeling for the sufferer. Any one who is so callous as to be *past feeling* will never make a good or an acceptable nurse; neither will she who is so soft-hearted as to shake

her head, or put a grin on her face, when pain or fear is manifested. The nurse must be firm, but possessed of a gentle will and hand. Real sympathy is shown more by *act* than by words, which become rather a source of annoyance than otherwise to the patient. Sympathy is easily known when it is seen, but difficult to describe.

When a sick person is rendered completely helpless, or nearly so, it is very distressing if there is no one present to assist him. No wonder, therefore, that the sick says to the nurse or visitor, "Do not leave me;" "Come soon, and see me again;" "Stay a little longer;" "Remember me, and visit me." The fact that there is some person present—even a child, for he can call for assistance—relieves the fear suggested by helplessness. Especially, therefore, is it the duty of the nurse, or the person who has charge of the sick, never to remain more than a minute or two from the patient without having suitable provision, when the fact of the patient being alone oppresses and worries him. The nurse should contrive to have some arrangement whereby assistance could easily be procured. The circumstances of the case can only direct how this may be carried out best.

Loneliness
most dis-
tressing to
the invalid.

When do the sick desire to be alone?

There are some invalids, however, who wish occasionally to be left alone. Officiousness is at all times tiresome. Every nurse ought to acquire the habit of knowing what is the peculiar temperament or special desire of the sick person—not that it must be indulged at all times and hazards—but there can be no doubt many would far prefer that the nurse betimes should leave the room for a little, as most people love a little quietness for private meditation, in order that they may collect their ideas without disturbance. Generally, however, this is not the case where the sick are helpless; they desire to be alone when they are quite confident that they can call or get assistance when they require it.

Mental solitude more distressing than physical.

Occasionally, we will find corporeal solitude far less distressing than the mental restlessness and loneliness, when the heart craves for something, and *nothing* satisfies its longings,—even when the sick are surrounded with comforts, kind and sympathising nurses supplying every need, affectionate friends suggesting every conceivable alleviation. What can the nurse do under these circumstances? This is often puzzling and vexatious. She ought not to be “cross” with the patient, nor despond because of it, but con-

tinue as steadfast as ever, carrying out in minute and unwearied detail all the directions of the physician. An act of love for the patient's good, if well directed, may enable him to seize more firmly and easily that faith which looks beyond mere sight, and which alone, under these circumstances, is able to *fill* the mind with joy and peace. Then, though helpless, he feels strong.

It must be a comfort to the nurse if she can reduce the physical sufferings to a minimum, but she ought not to rest short of this. How often, in consequence of this mental solitude, the invalid has heard the still small voice, "What are you doing here?"—or the listening ear receives the welcome promise, "Fear not, for I am with thee; be not dismayed, for I am thy God." If the response is, "Abide with me," "Tarry with me," the mental loneliness will be chased away.

It is impossible for any one who really desires to be a *nurse* to think lightly of all this; for who can tell the issues of an illness where loneliness is so distressing? Relatives and friends, the nurse ought to remember, treasure up in their minds for *many* days to come what takes place in the sick-room, under

Solitude
made useful.

Can a nurse
think care-
lessly of
these things?

such conditions as have been supposed. Happiness, or the reverse, may be the fruit.

Excess bad.
Constant
equanimity
most to be
desired.

The nurse, however, must recollect that, while neither mental nor bodily loneliness is desirable, the reverse is, in turn, quite as injurious both to mind and body. The person who has charge of the sick must see that there is perfect equanimity maintained *at all times*; not merely when she is present, but also when she is absent. A good plan, therefore, for the nurse to follow, is, to go into the sick-room when unexpected, and, if things are not conducted as they ought to be, she must reprove with firmness, but kindly, inasmuch as her only and greatest desire is for the welfare of the sick person. Who would be so cruel as to take such counsel amiss?

Discernment
and know-
ledge prevent
misunder-
standing.

Wise discernment is quite as requisite and necessary as practical knowledge. A nurse cannot be efficient without either. Perhaps the former is more difficult to attain, but it is well worth searching after. A nurse without discernment, self-control, and a well-regulated mind, will be tossed to and fro, according to the mental alienations of the sick person, or the friends, or, more frequently, both. It is well known that the sick and their friends vary much, according

to circumstances, and at times are often whimsical and fanciful; while, on the other hand, without a thorough knowledge of how to apply and use discreetly all that the patient may require, the nurse will be labouring in vain. The nurse must know how to judge and weigh correctly all that she observes, and what the patient or friends tell her, but be guided by neither further than well-balanced reason dictates.

Unless the nurse acts on the principles now enumerated, she will be liable to misunderstand the wants of the sick person. She cannot correctly interpret the difference between *cannot* and *will not*. This is constantly required; for sometimes the temperament of the person changes much in illness from what it was in health. Disease has a marked effect on the mental state, as well as the bodily. She must weigh well whether the patient can accomplish an effort at all, and, if at one time, can he do the same at another; or, whether he really enjoys one day what he cannot enjoy on the next.

Ill-health often changes the temper, and the sick person says and does what may be inconsistent with what he would naturally. It is very important that

Nurse requires much wisdom and prudence.

Temperament of person differs in health and disease.

the nurse should not misconstrue all this; for this is occasionally a natural effect of disease. Sometimes we have crossness and irritability. Under such circumstances, the nurse ought to become tender and forbearing in conducting the treatment: in this way alone can she help to make him more happy, and free him from the morbid condition now supposed. All this requires long experience and close observation on the part of the nurse; but, fortunately, by these they can be attained, and so the grossest misunderstandings on the part of the invalid, or well-intentioned friends, may be prevented. For example, how often has a patient been kept alive by means which the invalid or super-sensitive friends dreaded so much that they fancied there could be no possible result save death! A nurse must prepare herself to stick firmly and unremittingly to the prescribed means, and not listen to the foolish advices and opinions of this or that person. At the same time, suggestions, in their own places, are useful; but weigh them well. Dogmatism and puffing do not become any one well. Certainly, a nurse will do well to keep herself clear of both.

Disease often so prostrates the sick person that he

becomes weary of the world; he feels its pleasures quite unsatisfying; he is tired of its crosses and disappointments; his long illness, the slow progress of the disease, the utter want of tone of the functions of the body, the aching limbs, the half-unconscious condition of the brain—all suggest a state of almost complete langour, and shadow forth a condition which seems to extinguish life and hope. “Hope deferred maketh the heart sick.” But, in a condition of weakness such as this, when even lying still becomes a cross, and almost unbearable—while, at the same time, there is no power to move, with only enough life to feel conscious of the exhaustion—it is still the duty of the nurse to work on, to forbear, to uphold, and to relieve. She must abide by the directions given to her.

Invalid
weari-
ed and
tired
of life.

The nurse ought to remember that, as disease affects the mind as well as the body, so the one sympathises, as a rule, with the other. Therefore, when the body suffers, the spirits are often depressed. When the former is alleviated, the latter will be improved. If one member suffers, the others will sympathise with it. The same will be the case, although few think of it, if the mind has little to do: it will

Weakness
affects
mind
and
body.

prey upon itself, and injure the body. This is exceedingly important for the nurse to recollect, whose duty it is to succour the *offending* member. If the mind is depressed in consequence of the bodily condition, then, correct the latter in the way directed ; if, on the contrary, the spirits are keeping the body in a morbid state, give something to it to do—amuse it—and this can be done in many ways. The best plan for each is to make out a form how this can be done most in harmony with the *physician's* plan.

Duty of
nurse when
patient is
afraid.

Sooner or later, if the illness is at all long or serious, the sick person generally (perhaps always), thinks of death. He may fear it. Very often the invalid makes this known ; less frequently he says nothing about it. What is the duty of the person in charge of him—his nurse—under such circumstances ? This depends on the nature of the case. If there are no grounds for the supposition, hope for recovery, instead of fear of death, ought to be peremptorily set forth—acquainting him, at the same time, that he has been stricken down for a wise purpose, under the hope that it may make him a more thoughtful, happier, and resigned being. The mind is the noblest part of man, and, no doubt, sick-

ness makes an impression, even on the strongest. "As thy day, so shall thy strength be." All things are fleeting here; the brightest lives are often overshadowed; no one knows what may be on the morrow—therefore, one ought to live for, and only for, to-day. If, however, life is despaired of, it would be cruel kindness, during the few moments that remain for preparing for death, to encourage hopes on false pretences. In such a case, while it is not the duty of the hired nurse (or friends) to gainsay authoritative information, she ought to soothe and comfort by kind and sympathetic actions. If the nurse is a relative, then she will have many opportunities of quieting fears and strengthening hopes, which the hireling cannot pretend to do except through her actions.

It often happens, in long serious illnesses, that the nurse, friends, or the sick person even, gets wearied and worn out in consequence of fatigue and anxiety. Little disturbances are then of common occurrence; the nurse begins to lose hope, is less attentive, is "cross," because of limited rest, being constantly waiting on the sick person; this, again, causes more disturbance among the friends, or servants. The

Have
plenty of
attendants.

invalid sometimes suffers from annoyances like these. Now, it would be well to relieve the person in charge as much and as often as is deemed sufficient; for it is a serious mistake to suppose that nurses (even trained) can do, day and night, without sleep or rest for weeks. At a push they may do days, with snatches, but it is not possible that they can perform their duties properly unless their bodies are taken care of. Disturbances from this cause are exceedingly prejudicial to the sick person. The nurse is not a maid-of-all-work, taken in to assist the servants; and, while she can make herself useful in various ways, yet she should receive every assistance, so as to help her to nurse the patient better. A nurse who thinks herself *above* doing this or that, is lacking in an important qualification, and unfit for her position.

Special
training is
required.

If the character and education are really good, the foundation is laid, and the superstructure, or the training, remains to be considered. The nurse must first be trained to habits of accurate observation; then, in habits of punctuality, quietness, and personal neatness. She must give attention to the various principles that have been, and have yet to be, laid down—for example, those which pertain to the sick-

room—its cleaning, ventilation ; sick-diet, appliances, and such like. It may be well to bear in mind that Sleep. the nurse must occasionally give special information regarding the patient's sleep—its exact amount as regards time, and its character and effect ; regarding the appetite, whether it is good, or otherwise—which Appetite. should be compared to some known standard, the nurse taking care not to use general appellations, but mention precisely what has been eaten. She may have occasion to note the characteristics of the urine, Urine. as regards its quantity, its consistency, its colour, its sediment, whether it has been passed frequently, or with pain ; she may even test its specific gravity, or its re-action, or ascertain its exact amount by measure.

She will also have to notice the action of the bowels, State of bowels. and carefully note if regular, constipated, or relaxed, and whether the motions are unnatural in consistency or colour, or otherwise abnormal. Generally, the nurse must retain such for further examination ; and this she should do by preserving the whole undisturbed, and so put away from the patient that the odour cannot be detected, or influence the air of the sick-room.

It is the nurse's duty, when she notices any special If in doubt, ask physician, and him only. peculiarity or abnormality about the patient's body,

to inform the medical attendant that such is the case, as it may have escaped his observation. Further, if the physician desires the nurse to inquire about any particular function, or other object of interest in his history, she ought to do so in the most delicate manner. No nurse should inquire into the *previous history* of the patient without special injunctions to that effect.

The nurse must always bear in mind that the objects of interest now enumerated, after being told to the physician, must be buried in her own mind, and never told to this or the other person, on any account.

The directions of the physician must be zealously and minutely carried out, the nurse observing carefully what the effect of the medicine is upon the patient. She ought not to fancy that the doctor does not know this or that; for he knows more than nurses often think; and, if she disobeys, he will very soon come to know that his directions are not fully attended to.

The nurse must be trained not only to observe *accurately*, but to *watch* the symptoms, and recognise speedily which are important, which are not (giving due consideration to the whims, fancies, fears, hopes, or real failure of the vital powers), which symptoms

Nurse
should get
and carry
out direc-
tions.

Special
duty of
nurse to
observe.

indicate improvement, which the reverse, which are evidence of neglect or error, and to what extent and how far this may be averted. In short, she must strive to have a well-balanced mind and understanding.

Now, the easiest, and certainly the surest, way of acquiring all this, is to be thoroughly well-up in what takes place in the natural condition of our system—study, therefore, the laws of health. The nurse should acquire at first a *definite, accurate, and concise* knowledge of what the healthy *secretions* and *excretions* are, and fix it in her mind for all time to come. This would prevent all uncertainty, and save much trouble and time. Thus, *e.g.*, if the surgeon or physician asks what like the excretions were?—were they natural, or the like? Can one nurse in twenty answer this precisely? How many would give the hesitating, “Ye—es, it was *quite* natural,” whether such was strictly correct or not. It is, no doubt, for this reason that physicians, in the meantime, prefer to *see* the excretions for themselves. It is to be hoped that nurses will improve in this respect. What applies to this particular applies to many other collateral matters. Doubtless, much will depend on the opportunities the nurse has of obtaining the necessary information

Nurse
should at
once learn
what occurs
in health.

when there is a diseased condition, and on her natural tact and perseverance. Supposing that such opportunities are lying at her hand, if she possesses a thorough knowledge of what observation teaches, it is quite *sufficient*, and all that will be *necessary*. In fact, this is the special training of a nurse. She is there for the very purpose of attending to lessen *mental* as well as *bodily* exertion—to prevent *anxiety* as well as *motion*. She—not the patient—must run over in her mind, not merely the sanitary arrangement of the sick-room, but the dietetic management also. She ought to think over what would be the best way of cooking the prescribed diet for the patient; to find out any defect in the cooking; to know the proper quantity the invalid should take, and see that it is not carried away without ever being tasted—either from deceit or want of due management; not simply to hand it to the sick person with the sole object of preventing movement and fatigue during the meal, though this also is very important at times.

Deaconess
or Sister.

Every nurse, or attendant on the sick, ought to pay particular attention to personal dress. This, in some nursing establishments, seems to take too prominent a place. All the nurses must wear the same apparel,

very like Roman Catholic Sisters, or Nuns, for the purpose partly of being known as nurses wherever they go, and partly also for equality, in order to prevent jealousy among themselves; and, further, because such uniform is supposed to be more appropriate. Therefore, we find these nurses usually called "Sisters" or "Deaconesses." There are objections to such sameness, as well as advantages, and there is great room for difference of opinion on a matter of this kind, but it would be beside our object to enter at present on this question. It is a matter of great Essentials. moment that the dress of the nurse should be simple, clean, and tidy, taking due care, at the same time, that it is warm and comfortable.

The nurse, without fail, ought to learn some mode Titivating irritates the sick. of putting up her hair in such a way that she should combine speed with neatness and efficiency. Those nurses who have been most approved as having done most for the relief of suffering, have been remarkable for the plain way in which the hair was put up, and the simplicity of the cap or head-dress they wore: as witness the photograph of Agnes Jones, Sister Gertrude, and many others who were trained in that admirable parent institution, Kaiserswerth.

Not only should there be plainness and great taste displayed by the nurse in regard to dress, but she ought to have abundant changes, yet no superfluity. The duties of a nurse expose her to cold, so that she should provide plenty of warm material, which will be serviceable during the hours of watching. She should procure a portable portmanteau, so that she may pack up at a few minutes notice. Most of our nurses are sadly behind and at fault in regard to this last particular—instead of minutes, they are hours ere they get themselves ready, which is a detestable practice. In a rough manner, it may be said that the following articles of clothing are only required by the nurse when on duty:—

Good Strong Box or Portmanteau.	1 Good Drugget Petticoat (scarlet and black, or blue and black).
4 Chemises.	1 Flannel Dressing-Gown.
2 Flannel Semmits.	2 Morning Dresses (printed).
4 Pairs Drawers.	Afternoon Wincy Dress.
3 Shifts.	6 Aprons (white calico).
3 Night-Gowns.	6 Night Caps.
4 Pairs Woollen Stockings.	6 Morning Caps.
1 Pair Slippers.	6 White Linen Collars.
4 Slip Bodies.	Brushes, Combs.
2 Flannel Petticoats.	Pins, Needles, &c.
1 Pair Stays.	

The question of a nurse's *age* ought to be con- Age.
sidered in reference to her strength, health, activity,
manner, and habits. It is decidedly objectionable to
lay down definite limits on this matter. Therefore,
with some degree of latitude, it may be said that the
most suitable age is between 25 and 55 years. At
the same time, there may be exceptions to such
limits—the circumstances of the case, as judged
by the above test, can alone decide this—there are
capital nurses outside the limits stated.

Now, as there must be no mistaking the spirit of First setting
out to be
watched.
independence, of genuine humility, of open, unselfish
heart, and of singleness of purpose in a nurse, she
must always be able to say: one thing have I desired,
one thing I will obtain and do. A woman doing the
best and noblest of all works, must do it in the best
of all ways. She must endeavour to act on the
principles of just and zealous emulation; while she
will be glad to see every nurse understanding the
science and art of nursing as well as herself, yet she
must not allow any one to surpass her, in any
particular, within her individual sphere. So there
will be personal matters depending on each nurse
which require to be attended to, more especially

during the first year or two after her training, but always to a greater or less extent. Each must endeavour, as far as lies in her power, to mould and form her moral and intellectual character, both as a woman and a nurse, so that she may be able to discharge, with all possible happiness to herself and with all possible profit to her employer, the duties connected with her calling. In all her communings, either with her own heart or intercourse with ladies, or otherwise, she ought to strive to cultivate every good principle and qualification—*energy, self-reliance, application, gentleness, kindness, affectionate sympathy, cheerfulness*—that can adorn the character of a true nurse. While, again, each should search out in a humble and faithful spirit, her own individual faults and deficiencies of character and training, and earnestly strive to correct them *early*.

“Uproot in your mental character whatever is evil, and try to replace it by what is good. Remember the garden of the mind is always certain of itself to grow weeds, if you do not train it to grow flowers.” The nurse who acts uprightly and conscientiously, besides commanding a respectable salary, may even get greater remuneration than in any other calling at

present known; the demand for nurses of sterling worth and reliability is greater than the supply. But remuneration is only one item, doubtless a necessary one, though perhaps least satisfying. Surely, to know that her services have been useful to the suffering during the ebbing moments of life, and to receive the most sincere and grateful thanks of the dying, must throw a solemnity and contentment round this calling felt nowhere else in the world. Therefore, "What thy hand findeth to do, do it with all thy might."

The value of having women thoroughly well-trained as nurses it is impossible to over-estimate; and it would surely conduce to secure this privilege if a set course of instruction in nursing was given, stated examinations established, and diplomas for efficiency granted. Nothing short of this will suffice; yet, in our hospitals, at present, there is little or nothing of the kind, but every nurse acts according to her own prudence, or what she thinks to be so. Nursing requires such care and intelligence that even the most clever woman might devote herself to it without feeling that it was unbecoming, or that she was fitted for, or ought to be engaged in, a work of a

The real test
for good
nursing.

higher kind. The following programme may, therefore, be worthy of consideration : the diploma for such a course of instruction would be worth having, and it would be a sufficient guarantee :—

I. That candidates for admission to the examination be required to submit certificates of the following qualifications :—

1. A certificate of moral character.
2. A certificate showing the candidate possesses a fair elementary education.
3. A certificate showing the candidate is not under 21 and not over 35 year of age (exceptions).
4. A certificate of attendance in an hospital for not less than six months, or, acting as a nurse for a period of twelve months under the immediate supervision of some physician accepted by the board of examiners.
5. A certificate of having attended a course of theoretical lectures on nursing, as sanctioned by the board.

II. That the candidates be required to pass *written* and *oral* examinations on :—

1. The elements of the laws of health.
2. The management of patients.
3. The management of the sick-room.

4. A knowledge of sanitary as well as manual nursing—the conditions necessary for good ventilation, cleanliness, sick-diet, different appliances, and the like.

5. The duties of the nurse with regard to the patient, friends, the doctor, and the servants, and when to send for medical advice.

III. That, on satisfying the board of examiners as to her qualifications, the nurse should receive a diploma certifying that she is a skilled nurse, showing that the sick person may be safely trusted to her care, and that she will faithfully carry out all the directions.

CHAPTER III.

FOOD FOR THE SICK.—SICK DIET.

A CONSIDERATION of the influence of food, or nourishment for the sick, is one of the widest, one of the most useful, and, it may be added, on account of its nature, one of the most difficult subjects we have to consider; but one which must always occupy a prominent position in anything that treats of nursing the sick.

The difficulty, to a great extent, proceeds from the varying character, diminution, or loss, of the appetite and power of digestion of the sick. To suit this varying capacity with a careful selection of food out of the wide range which nature has provided, is no easy matter. Observe, then, what we have to deal with, as regards diet. Illness generally shows itself, somehow, by the loathing of that which is

the natural means for restoring and renovating the vital powers ; occasionally, we have slight nausea, or mere loss of appetite, sometimes rejection of the food taken in consequence of the impaired state of the whole system, and sometimes we have intractable retching, which may be originated by various causes. On the one hand, we may have merely the slightest departure from health showing itself by nausea, or, on the other hand, we may have this so much increased that all food is vomited ; nay, further, the natural secretions may even become a source of trouble and waste, when there is severe retching. Between these extremes there are numerous degrees and every conceivable variety. An examination, therefore, of what bears such a close relation to what concerns health, must be of as much, if not more importance, when viewed in relation to disease. In the treatment of disease, our object must be to try to stop the existing condition, and bring the body back to a state of health, and this must *mainly* be accomplished through the means of suitable nourishment and care.

How is the body nourished ? Taking milk as Milk the type of food. the standard of our comparison, for generally we

depend on it, and it alone, as the means of our subsistence at first. Milk, as the type of the food of mankind, contains three great divisions of nutrient principles—

1. Nitrogenous substances, or flesh-formers.
2. Carboniferous substances, or heat-givers.
3. Mineral substances.

Each of these classes is found in milk, and in a definite proportion; yet, after a certain age, it is true that our bodies require food different from milk, in order to perform the duties required. But these different ingredients we at all times require, in order to sustain health and strength. Further, it has been clearly proved both by experiment, and by the dietary of our public institutions and charities—prisons, hospitals, asylums, schools, and workhouses—that these ingredients must bear a certain, more or less fixed, proportion to each other, not only in milk, but in food for adults. This proportion admits of considerable variation before injury directly follows—in the case of individuals even, much more so in communities and nations, if compared with one another.

Milk contains, on an average, three parts of car-

boniferous substances, to one part of nitrogenous. Laying aside, in the meantime, the mineral substances, which are of small amount, comparatively speaking, though in their own places and uses quite as important as either of the others; thus, for example, we could not dispense with phosphate of lime, because necessary to form bone, likewise phosphorus is supposed to be necessary for the brain and nervous system, fluorine for the teeth, silica for the hair and nails, salt exists in the blood and is supposed to act specially on albumen, and so on with many others. But while the proportion of these two great divisions in milk is one part of nitrogenous to three parts of carboniferous substances, yet adults generally require the proportion of one to four, as that is found most suitable for sustaining perfect health. The one supplies *force* (viz. the nitrogenous), the other supplies *heat* (viz. the carboniferous).

Force and heat are the two agents we have to deal with. But, in order to understand how the body is to be nourished, we have also to glance at the function of nutrition. Small portions of food, on being introduced into the mouth, and broken up by

The two
agents heat
and force.

How is
nutrition
performed
Blood
formed from
food.

the process of mastication, and mixed with the saliva—all this should be done well, which we have in our power to do, for it not only makes the involuntary process of swallowing (deglutition) easier, but also materially aids digestion afterwards. It is then received into the stomach, where it mixes with the gastric juice, is subjected to a constant trituration, and thus brought into a minute state of division, which, when acted upon sufficiently, is called *chyme*. The chyme passes gradually from the stomach into the intestines, where it first meets with, and is acted upon, by the bile (and probably other secretions). The chyme, which is minutely divided, is propelled forward by the vermicular contractions of the bowels, and the more fluid part absorbed by the *villi* (special absorbing structures) on the mucous or inner surface of the intestines. The part thus extracted by the villi is termed *chyle*, and is carried into the lacteal vessels which convey the chyle (after the blood glands have made it into corpuscles, globules, floating in the fluid portion) into a common duct called the *receptaculum chyli*, and after this duct leaves the abdominal cavity for the chest, it is then named the *thoracic duct*, which carries the chyle upwards

through the chest to the right side of the heart, where it mingles with the venous blood which has come from the different parts of the body, and all this goes to the lungs to be acted on by the air we breathe. The carbonic acid gas of the venous blood is expired, and oxygen takes its place; the blood is enriched, arterialized, and brought to the left side of the heart now, and sent by means of the arteries and arterial capillaries, to *all* parts of the body, carrying in it, in a suspended form, the nutrient material suitable for each part, which was taken primarily from the food. Each part of the body naturally attracts, selects, and retains what is useful to nourish it from this supply, while the waste, and what is not necessary for the part, is sent away by the venous capillaries and veins, back to the right side of the heart, just to where we started, to meet the chyle again, and all to be taken anew to the lungs.

Blood conveys the nourishment to all parts.

The process being continuous, and regulated by the nervous system, and each part of the process depending on the other, we thus see that the introduction of proper aliment is of the greatest moment, for the blood is formed from it. But, in

Selection of elements from different kinds of diet.

estimating what constitutes the best composition of the food requisite to carry on the process, we must note what are the primary elements, and so it has been found that the food of man is made up of carbon, nitrogen, hydrogen, oxygen, sulphur, and mineral substances. Leaving out the mineral substances, we observe in nature that these five primary elements are united, and have a certain selection, and this we find gives a decided character to special articles of diet, and in this way the two great classes are formed:—

I. Nitrogenous substances, or flesh formers, which embrace—albumen, fibrin, casein, ligumen, gelatinous substances.

II. Carboniferous substances, or heat-givers, such as—fat, starch, sugar, gum, cellulose, alcoholic beverages.

The following tables will be useful, both to show the amount of different proximate principles in various articles of diet, and also how these are combined in different dietaries.

These tables are of the greatest value. No. I. points out at a glance the amount of nourishment in any given article of food. It will show us the relative

I. STANDARD TABLE OF NUTRIMENT OF VARIOUS DIETETIC ARTICLES.

	Percentage of Nutriment.		
	Carbo- niferous.	Nitro- genous.	TOTAL.
Lean Beef and Mutton, no bone,	0'0	27'0	27'0
Fat of do.,	100'0	0'0	100'0
Average of do.,	15'0	20'25	35'25
Bacon,	62'5	8'36	70'86
White Fish,	7'0	14'0	21'0
Salt Herring,	20'0	12'7	32'7
Beef Tea (strong),	0'0	1'44	1'44
Beef Tea and Meat Decoction of Broth,	0'0	0'72	0'72
Beef Juice (preserved 5 years),	0'0	6'6	6'6
Beer (if alcohol and extract all nutritive),	9'17	0'85	10'02
Milk (new),	8'0	4'5	12'5
Do. (skimmed),	5'5	4'5	10'0
Do. (butter),	1'0	6'0	7'0
Cheese (skimmed milk),	0'4	64'6	65'0
Do. (unskimmed milk),	25'3	31'0	56'3
Butter,	86'0	1'0	87'0
Suet,	87'0	0'0	87'0
Lard,	90'0	2'0	92'0
Eggs,	11'0	12'6	23'6
Pease,	55'5	24'5	80'0
Beans,	57'7	24'0	81'7
Lentils,	58'5	26'0	84'5
Flour,	71'25	16'25	87'5
Bread,	51'5	10'5	62'0
Biscuit,	70'3	14'2	84'5
Barley (pearl),	67'0	15'0	82'0
Oatmeal,	65'75	16'25	82'0
Maize,	73'0	12'0	85'0
Rice,	79'5	6'5	86'0
Rye,	71'5	13'8	85'3
Buck-wheat,	75'4	8'6	84'0
Potatoes,	24'5	2'5	27'0
Parsnips,	18'0	2'0	20'0
Carrots,	8'5	1'5	10'0
Turnips,	5'7	0'3	6'0
Succulent Vegetables, Cabbage,	6'7	0'3	7'0
Arrowroot,	86'7	1'0	87'7
Sago,	83'5	1'5	85'0
Tapioca,	84'7	2'0	86'7
Sugar,	95'0	0'0	95'0

II. NUTRIMENT IN VARIOUS DIETARIES.

	Real Nutriment.		
	Carbo- niferous.	Nitro- genous.	TOTAL.
British Navy, . . .	20'90	7'54	28'5
Hessian Soldiers, . . .	26'59	6'37	32'96
Berwickshire Reapers, . . .	33'36	8'48	41'84
Yorkshire Farm Labourers, . . .	35'21	10'33	45'54
Do. at Hay and Corn Harvest, . . .	45'71	15'60	61'31
Worcestershire Reapers, . . .	20'79	9'31	30'10
Australian Shepherds, . . .	24'87	9'26	34'13
Do. at Sheep-shearing, . . .	29'32	15'27	44'59
Irish Labourers, . . .	37'70	5'70	43'40
Infirmary full diet, . . .	16'50	5'34	21'84
Convalescent diet (mine), . . .	14'28	4'08	18'36
Scotch Gen. Prison, 1st diet, . . .	19'07	6'09	25'16
Do. Pump-workers, . . .	22'59	8'40	30'99
Scotch Local Prison, lowest, . . .	12'87	4'05	16'92
Do. do. do. potatoes only, . . .	23'55	2'70	26'25
Edinburgh Charity Workhouse, . . .	12'39	4'56	16'95
Greenwich Pensioners, . . .	16'47	4'95	21'42
Heriot's Hospital Boys, . . .	14'68	4'54	19'22
Donaldson's do. do., . . .	14'06	3'96	18'02
Charity Workhouse Boys, . . .	11'32	4'50	15'82
Greenwich Hospital Boys, . . .	13'60	3'46	17'06
British Troops in Crimea, . . .	13'80	5'84	19'64
French do. ordinary, . . .	13'94	4'23	18'17
Do. do. in trenches, . . .	18'79	5'47	24'26
Millbank Prison, Healthy D., . . .	19'95	5'05	25'0
Do. do. Scorbutic, . . .	16'92	3'98	20'9
Scotch Gen. Prison, Healthy D., . . .	19'17	6'03	25'2
Do. do. Scorbutic, . . .	19'46	4'74	24'2
Do. do. Convalescent, . . .	18'43	6'37	25'8
Scorbutic Railway Labourers, 1, . . .	20'15	4'65	25'8
Do. do. 2, . . .	30'06	5'04	35'1
Do. do. 2, . . .	27'86	5'04	32'9
Do. do. 4, . . .	40'58	6'72	47'3
Do. Convalescing. No labour, . . .	16'50	5'34	21'84

proportion of the two classes of nutritive principles, which is of great consequence. No. II. is equally plain and useful. In it we will find, that when each of the Millbank prisoners were allowed 19.95 ounces of carboniferous equivalents, and 5.05 ounces of nitrogenous per day, they remained healthy; but, when the former was reduced to 16.92, and the latter to 3.98, the prisoners became scorbutic. As striking facts may be seen by looking at the other parts of the table.

Speaking generally, in order to preserve the body in health, and in working order, six or seven ounces of the first, and twenty-four or thirty of the second class, are necessary per day for each individual. Much less is required, or at least taken, in disease. When there is illness, it is important to remember this, for the standard that we have in health is the one which we must here strive to follow. Authors are not quite agreed as to what the *exact* proportion ought to be, but the approximation given, is the one based upon the data obtained in the army and our large public institutions. (See table No. II.) It, of course, is not absolute, and admits of variation to some considerable extent, either way, before injury

Amount of
food taken
generally
too great.

is produced. The question of injurious effect might here be raised in regard to excess or deficiency of food, with reference to the amount mentioned above—how far it can be exceeded, and, if exceeded, how long can such be endured, and with what effect; or to what extent the proportion might be changed; or *vice versâ*? In practice, examples of both extremes are met with. But this would lead us to the consideration of food as a *cause* of disease; and, interesting as this might be, yet the remarks must be confined to its influence as a means of *cure*.

Diseases
caused by
excess or
diminution
of food.

When disease arises from excess of eating—as, for example, in certain forms of dyspepsia, polysarcia, or enlargement of the liver,—the consideration of the effect of diet is as necessary and important as if it arose from manifest deficiency. It is the province of the physician to ascertain accurately the cause of the ailment, and point out the means best adapted for its cure.

In any departure from the natural standard of health, whatever the nature of the illness may be, there is, or there will be, a departure from the natural and accustomed diet of the patient—this is true, even of those cases where there is an extraordinary and

unnatural demand for food, which forms the principal feature in such diseases. But the departure which is most general, if not universal, with the above exception, is *loathing of food* in some form or other, when the constitution is effected. What we have, therefore, to deal with is, to meet the existing state of disease with suitable diet and *regimen*, and restore the system to its natural equilibrium.

We must, therefore, devote some consideration to the relative digestability and nutritive power of the different articles which form sick dietary. In most cases of illness, it will be found necessary to administer the greatest amount of nourishment in small bulk, so as to give as much *rest* as possible to the organs more immediately concerned in nutrition. There are, however, many exceptions to this, as, for example, when the nourishment ought to be little, and the quantity increased. Animal food is considered to be the source of supply when force is required, as it contains nitrogenous, or azotised elements chiefly; while vegetable food supplies heat, and contains carbonaceous, or non-azotised elements.

Generally
quality, not
quantity
essentia.

Each class contains a small amount of the other. Both are necessary in health, and in disease they

Study digestion, not analysis merely.

cannot be dispensed with, though more of the one may be necessary than the other, according to the nature of the illness. Thus, it is found in scurvy, that vegetable albumen is of most service. Then it must be born in mind, that the sick may be only able to take what is equivalent to sixteen or seventeen ounces, or even less, per 'day, and that upon this he sustains, not only his body, but hopes to be strengthened so as to stop the progress and ravages of disease, and ultimately to restore the body to its former state of health. It is also worthy of notice that we must not persist long with a fixed dietary, for our patient's digestion may be peculiar; it may be found, in particular cases, that articles which are known to be easy of digestion are more difficult in this one, and therefore not suitable. Again, during a single illness, the function of digestion may change, so that the diet must be made to suit the existing condition for the time being. Then we have many collateral influences, as age, sex, period of growth, pregnancy, and the varying conditions of life and climate, all of which are very important in regard to diet.

But there can be no doubt that different articles of

food possess, as we have seen, a greater amount of nutrient material, and that their digestibility is also different; in other words, that certain articles are more nourishing and more easily digested than others.

Can we, therefore, mix the nourishing and easily digested articles in such a manner as to be at the same time useful in exciting an appetite, in aiding digestion, in checking sickness, and in restoring health? It is certain there are existing cases of illness and disease where food, in any form however administered, has not the least power in allaying the affection; but it is also true that the careful selection of articles, tastefully prepared, is the best and most reliable means of treatment, because it gives support and strength to the system. But, if this is not attended to (and it is to be feared that such is the case), the sick may die simply from inanition. Notice the subordinate place the public, even in this enlightened age, give to the subject of sick-diet in a case of illness, and the trust they put in medicine. The vital part put anywhere, but not first; the primary put secondary and *vice versâ*. No one who has seen the judicious administration of medicine can really doubt its great

Medicine
aiding
digestion.

usefulness—always as an aid, but sometimes the sole agent in restoring health. As a rule, food is nature's restorative, and medicine is subservient to it. Its effect on the formation of blood we saw was an essential part in supplying our ever-returning wants, yet no one can doubt the good effect that iron and its salts have as blood restoratives. Whether we look at a community, or the individual members which form it, or at the isolated cases of sickness in a healthy community, the consideration of diet must always be important and interesting.

So far as the diet of communities is concerned, that matter belongs to the subject of general hygiene, and cannot be entered into here. Suffice it to say, that if the diathetic conditions are carefully observed, and a suitable diet and regimen obtained, what a beneficial effect it would have upon the inhabitants.

But now, with regard to the diet of the sick in a practical view of the question, we notice:—

- I. Cooking the food for the sick, sick-cookery.
- II. Variety and quality of the sick-diet.
- III. Punctuality in the administration of it.
- IV. Cleanliness and neatness in serving it.

I. *Sick-cookery*.—Count Rumford was so much

struck with the importance of the art of cookery, that he made the following remarkable statement: Good cooking economical and essential. "It seems to me," he observes, "more than probable that the number of inhabitants who may be supported in any country upon its natural produce, depends as much upon the state of the *Art of Cookery* as upon that of Agriculture." Dr. Playfair, M.P., looks at the subject (cookery) from another point of view. He says: "It is a maxim as old as Hypocrates, that 'whatever pleases the palate nourishes,' and it is only when taste becomes depraved by indulgence, that the pleasure of eating becomes contemptible." This matter is merely mentioned here in passing. Even in the matter of satiety, the influence of cookery is very great, and what we require here is subjection of inordinate desires, a lighter form of diet, and a good deal more exercise, to make eating a pleasure instead of being contemptible.

Sick-cookery is intended to restore and preserve the appetite, and aid digestion. The sick may not be able to take food from either or both these being impaired, and it is our duty to detect which is at fault, and correct it. Very often the appetite and digestion sympathise with each other. We often see, Choose food to suit appetite and digestion.

when the digestion has been over-taxed, the appetite begins to be impaired, and nothing is desired to "please the palate," for the time being, until nature's plan is effected, and then we find that a careful choice and preparation of diet will not only do this, but nourish the body. Now, there are many of whom it may be truly said that the maxim does not hold good, for there are certain kinds of food which does certainly "please the palate;" nevertheless, these persons (usually called "stomachy"), find to their cost, afterwards, that it would be more prudent had they made a more careful choice.

How to help
digestion.

Taking the cooking which is in general use when we are in health as a known standard, we must endeavour, in the case of cooking for the sick, so to prepare the diet that it may be digested more *easily*, more *pleasantly*, and more *effectually*. It will therefore be our object to break up the tissues more, as, for instance, in making soup or tea from a chicken, or from beef, instead of giving these in the solid form. If solids are given, those that can be broken up most easily are, of course, the best; and therefore white meat is preferable to beef when the digestion is weak.

Then, again, the nourishing part of the food is

extracted, and the remainder cast away, and so there is little bulk taken, while the quality of nourishment is proportionally much greater. In this way the *cohesion* is much reduced from what it would be in ordinary cooking; and, besides, the patient could not take it. In other words, we now wish to extract the most nutrient and digestible portions, so that they can be readily taken and assimilated.

The processes of mastication, deglutition, and digestion, are thus aided by having a diet which is not too difficult for the sick to manage, for these functions have less thrown upon them under such circumstances as we are now considering.

Further, it is well known that the flavour given by cooking to diet, under certain circumstances, is more useful, perhaps, than medicine, in creating an appetite, restoring tone to the stomach, and exciting the digestive powers. The diet may also be diluted and made to act on the secretions and excretions, and thus lessen the necessity for laxative medicine.

Sick-cookery should essentially be simple. This is a very important matter for the sick, as heavy ^{Variety of diet taking place of} medicine. savoury compounds are loathsome, the thought of them annoys and disgusts the patient. While the

diet of the sick, then, should be simple, the variety need not be the less. Therefore, it is generally found most wholesome, and better relished, to have a simple diet, which should be changed frequently. For, it should always be borne in mind that simple food, however well liked, should not be continued long without a change. The person in charge should observe that the patient liked a certain article, for example, and that it agreed with him, but take care to change it before he has time to dislike it, and then fall back on it again.

Sick-cookery
very vaguely
understood.

The seasoning and flavour of sick-diet should be carefully considered. The good effects of a little attention bestowed on this matter will be readily seen by any one who is careful to try. Without this, that, or the other seasoning, the beef tea will not be relished nor taken, or perhaps there is no salt in it, or, again, there may be too much. Now all these things should be scrupulously attended to in those cases where, from exhaustion or otherwise, nourishment is depended on as the only treatment likely to do good. The cook must give her undivided attention to the matter, and, if so, sick-cookery will perform a great deal more than it generally gets

credit for. How carelessly beef-tea or chicken soup is generally (almost universally) prepared, and no attention given, or very little, to having it made of a uniform strength. How varied, for example, would be the beef-tea, made by twenty or thirty individuals, if put to the actual test of an examination: and so of other things. Is beef-tea better for the sick when the meat is allowed to simmer beside the fire, instead of being hurriedly boiled? The nurse, or cook, too often never thinks of trying the effect of all this, but does what is easiest and gives least trouble. For example, do nurses exert themselves in getting hard or soft water, as the case may be, when the substance cooked suits better with the one than the other; do they put themselves to the trouble to ascertain this for themselves, by being interested in the sick under their care, and proving it by the test of experience?

These remarks on sick-room cookery may be suitably concluded by an extract from a lecture by Dr. Playfair, who says: "We are not taught as we should be the useful practical lessons of life, or how to apply the teachings of science to our everyday wants. . . . Nor shall we attain the benefits which

Necessity
for further
attention to
the subject.

the discoveries of science are calculated to bestow on mankind, until women are taught domestic economy rationally, not empirically, as part of their education. Women are the feeders, as well as the mothers of men, and if our ladies would devote but a small fraction of their time, which they spend in exercising their fingers playing scales on the piano, in cultivating a knowledge of the sciences of life, it would serve them well when they experience their 'joy that a man is born into the world ;' they would then more seriously fulfil the solemn duties they have to perform, would largely diminish the amount of infantile mortality, and would give to the world successive generations more fitted to accomplish the purposes of the Great God who created them. As part of this rational education, an acquaintance both with the science and art of cookery should rank high in importance."

Plain diet
best.

II. *Variety and quality of the sick-diet.*—Medical men do not enquire particularly or enough about varying the diet for their patients, but simply give some general directions about it, which, after all, are very vaguely understood by the person in charge. Such is generally the case, but would it not be better

if we gave much more attention to this subject, so that others, who have the more immediate charge, might interest themselves in it, or be able to direct the nurse precisely how to prepare, or change it when necessary. The quality of food for the sick should always be of the best description. No doubtful aliment should at all be permitted, for, notice what the effect of unsound milk, stale bread, and eggs that are too far gone, would have, even on those who are quite well—much more so would this be the case in sickness. The variety in the sick-diet must consist in the different preparations of farinaceous food, animal teas, milk, and drinks.

Now, with regard to this matter, we have two main things to consider; first, that the nutritive proximate principles are fully and fairly represented, such as may be seen by referring to the tables at page 119; and, second, we must observe what kind of food *agrees* best with our patient. We cannot trust to the analysis of food alone, as seen in books, nor can we dispense with it, and trust entirely to the taste and caprice of our patient. Each may help the other, if kept in their proper places. In this place, more cannot be done than to

Theory and
practice
should go
together.

enumerate some of the resources ; thus, for example, when farinaceous food is required, as it generally is during some period or other of acute disease, we may have a great variety from flour, bread, biscuit, barley, oatmeal, or rice, or *revalenta arabica* (lentiles), each of which contains a fair proportion of nitrogenous and carbonaceous substances, and these are the most nourishing of their kind. But we are not limited to these alone, for we have arrowroot, sago, and tapioca, which contain little nourishment, so far as regards nitrogenous substances, but sometimes they form useful vehicles for eggs and the like. In these alone, how varied the diet may be, if the nurse only *thinks* of it, and knows all the minutiae of her work. Then, again, we may combine these with the animal teas, by putting rice in beef-tea, or macaroni or toasted bread in brown soup. The variety may be made *ad infinitum*, yet how often is it said, "Is it that again?" "How tired I am of seeing that!" "The sight of it is enough for me!" "I wish I had something else!" "Oh! I cannot take anything!" "Leave it for a little." "Is there no change that we could have?" Surely there is some fault or negligence in all this.

A lady, who has used the following preparation for about two years, kindly gave the receipt to the writer, because she had found it so useful in her own case. It is a soup consisting of *milk*, *corn-flour*, and *extract of meat*. The mixture, at the first glance, would seem not likely to be relished, or agree well, but there cannot be any dispute about the ingredients, for they must commend themselves to our favourable attention. According to Sir R. Christison, beef-tea contains merely the nutritive principle, osmazome, and nothing more, so that, by itself, it cannot be considered very nutrient; therefore, by adding corn-flour and milk, two substances possessing that property *in abundance* (See page 119), we have a useful compound, theoretically, if we find it agrees with the patient; and any one may satisfy himself regarding the usefulness of the mixture if he only tries it. The method of preparing it is as follows:—A breakfast-cupful of milk is brought to the boil, a teaspoonful (or a-half) of Liebig's extract of meat is stirred in it until dissolved, and corn-flour is slowly and gradually poured upon it while at this heat (stirring it all the time), until it is brought to the consistency of ordinary pea

or white soup. A little seasoning or curry powder should be added, according to taste. Thus made, there should be no particles. A slight change may be made in this, as for example, the same quantity of "stocks" may be changed for the milk, and then less of Liebig's extract is required; the corn flour being added in the same way.

There is one advantage, at all events, in this soup, In addition to the ingredients enumerated, it may be most readily made,—quicker almost than any other that can be got of its kind. Patients can take it once, or even twice a day, and continue it for weeks, but it is always better to stop it after about ten days or so, and then begin it again when required.

This soup—(the receipt will be found along with the others)—is an admirable way of introducing nourishment when the system is very much weakened or exhausted, *e.g.*, fevers (especially typhoid), and chronic ailments. When well prepared, it cannot be detected as containing Liebig's extract of meat. Patients sometimes object to the extract as usually directed to be prepared, from the disagreeable burnt taste it has. This is felt more especially if continued for some time. Again, half a teaspoonful of the extract, dissolved in a

cup of warm water, and taken when quite cold, is often relished. But, by careful preparation, the peculiar burnt taste can be got over, as, *e.g.*, in the way directed above. It may here be noticed, that in some cases of illness it is not necessary, nor advisable, to tell the patient how the food is prepared, or all the ingredients it contains ; at other times it will amuse and please the patient to know all about it. If a patient is able to take a little at a time of the Liebig mixture, he certainly, so far as food is concerned, receives the nutrient proximate principles in a very fair way, and, from its concentrated form, also a very fair amount.

Barley, rice, macaroni, or bread in plain beef-tea, chicken, mutton, or veal soup, will form admirable changes ; or some of these soups may be mixed together. Then we have another change in turtle soup, a favourite dish with many ; but, if there is great weakness or exhaustion, it must be used with caution, and small quantities given at a time, as it is apt to be heavy and stimulating.

Milk.—The nurse, or whoever has charge of the patient, may, by simply *thinking* on what they are about, put the most common articles of diet in a

form that may be very greatly relished—which is chiefly due to their simplicity. Nothing can, perhaps, show this to greater advantage than milk. All are agreed about its nutritive properties, but how few think of it during illness, except along with something else. In some cases, it certainly seems as if milk was not suitable, for, after its use, patients describe a series of symptoms termed “bilious.” This may be right, or it may be wrong, but should milk be withheld on account of these feelings?—not at least without giving something to correct them. Watching alone can determine when milk is really not agreeing. There seems every likelihood that milk will be found to suit most patients, if good in quality, and sparingly used at first, and its effects watched.

In acute inflammatory diseases, from children upwards, what a great advantage would follow from the free use of ice-cold milk. It is said the *free use*, for note that milk itself is sufficient to sustain the body, and that if the patient cannot take much food, or is wearied of the kinds presented to him, and relishes the change to milk, it is enough. The patient, therefore, may be allowed to take as much

milk as he is inclined for. Nurses and friends often say that the sick person is "taking nothing, with the exception of milk," without ever thinking that by milk alone enough nourishment can be introduced.

A small piece of ice (and it may be mentioned here, Ice-cold milk instead of water. that a needle or pin is a far better instrument for breaking ice than a hammer, which smashes more than it breaks, and therefore destroys it), about a square inch, put into a cup of milk, allowed to stand for a little, or stirred for a minute or two, the patient will take this as a drink *sooner than water*. Now, this can be freely permitted, but nurses or friends never think of this until ordered, and, occasionally, seem to be surprised at prescribing ice. Everyone who has attended a person suffering from an inflammatory affection, must have been struck with the constant requests for drinks of water. The sick wish water, because it is simple, and quenches the thirst. Milk, with a small lump of ice in it, will answer as well as fresh water, even for this purpose, and will be far better, for it will abundantly feed the patient, which he may require as much as the gratification of his desires. Very frequently water will be decidedly injurious, if allowed freely. But, remember, in order

to accomplish this object, milk alone will not do; it must have ice in it. Milk itself creates thirst by the peculiar effect it has in adhering to the mouth and throat, and, after a mouthful or two is taken, the patient desires a drink of water immediately. Now, its effect with ice is quite different. Besides, cold is not yet used to one half the extent it may be, in calming the nervous system, and lowering the excited circulation.

Of course, the use of milk, as now referred to, is only advantageous in particular cases; it is principally useful when little or no other food can be taken or kept, as in temporary derangements of the stomach or system generally, or in hæmorrhage, or in fever, or whenever there is great heat or thirst. There is one precaution, however, necessary to notice, that the use of ice, in any form, is not to be pushed so far as to lower the temperature of the person unduly, or given where the temperature of the body is already low.

Cream sometimes forms an excellent method of administering nourishment in cases of exhaustion and weakness, especially in long standing diseases in early life. It can be borne much better than milk, and possesses the ingredients of milk in a concen-

trated form. Care, however, must be taken that the cream is perfectly fresh, not too thick nor old. On the other hand, cream must not be given unadvisedly, for the ingredients which compose it tend to aggravate certain maladies, *e.g.*, when we have fatty degeneration of special organs.

Ice is universally recognised as having a powerful ^{Ice.} effect in arresting hæmorrhage; and the pulse, in temporary derangements, comes down very considerably under the free use of ice-cold milk, and that only, acting in this way as a sedative of the vascular system.

Ice itself, without milk, is useful, as, for example, when the desire for water is very urgent—the patient may not be able to take milk—a small piece put into the patient's mouth answers all that water can do. It has this advantage also over water, that a very small quantity of water is introduced into the system, and a greater effect is produced upon the patient. The amount of cold is more intense, while the actual quantity of fluid is lessened. Then, again, little pieces of ice can be swallowed, and acts directly in quenching the thirst when it originates from the stomach.

Farinaceous food, made with milk, is more difficult

Farinaceous
food made
with water
best for the
sick.

for the patient to digest than if it were made with water ; it is heavier with the former than the latter, and, therefore, it is generally preferred when made with water. Farinaceous food should be prepared plain and simple, either in a liquid form, or as a pudding ; the state of the patient alone can decide upon which of these would be most suitable ; generally, in chronic cases, the pudding will be liked, whereas in acute cases of illness, it is easier and better to be given in the liquid form. When the mucous membrane is very tender and weak, it perhaps may be better to give the lightest form at first, as, *e.g.*, sago, arrowroot, and tapioca, because such is very likely to be absorbed, whereas corn-flour or *revalenta* may be allowed to pass more or less undigested.

Diet now
indicated
may be full
or low.

It is believed that hospital patients are better attended to and fed there than in their own homes ; because often the diet is not much under their usual in amount ; sometimes it equals it ; and at other times, in particular cases, it exceeds it. In private practice, all this is changed ; we have to do with patients who are over, rather than under fed, and who, in sickness, are on a diet far below that to which they have been

accustomed to. So that the diet prepared from the various kinds of food alluded to may be regarded as Low Diet. Low Diet, in hospital, does not exceed more than eight ounces solid nutriment per day, and it will be remembered that that is not one third of what is necessary to sustain the body in health, and that the Full Diet in hospital does not exceed twenty ounces of solid nutriment per day, when convalescence sets in.

The following tables (which are still used in hospital, so far as the amount and quality of food are concerned),* are inserted here to elucidate the subject of diet in the treatment of private patients. By an enquiry and reckoning of this kind, more precision and satisfaction may be obtained.

* The prices in this list must be taken into account in looking over the cost of the dietaries in the above tables. This was the price list of 1843. It may be readily compared with 1872. In calculating the cost of a ration of each article of diet, the cost of the several substances used in preparing it has been taken at the price in the contract, under which the Hospital is at present supplied. These prices are,—Oatmeal, Twenty-Eight Shillings the sack of 280 pounds; Bread, Sixpence the loaf of 64 ounces; New Milk, Eightpence-Halfpenny the imperial gallon; Butter-Milk, Twelve Shillings and Sixpence for 100 Scotch pints of 64 fluid ounces each; Barley, Thirteen Shillings the hundredweight; Meat, Fourpence a pound "overhead;" Greens, Ninepence the stone; Leeks, Twopence the pound; Salt, Eightpence for 21 pounds. Of the articles to be used in the New Scheme, which do not form a part of the present regular diets, Tea is taken at Four and Sixpence a pound; Coffee (burnt), at Twentypence; Rice (E. Indian), at Threepence; Essential Oil of Lemon, at One and Sixpence an ounce; Eggs, at Eightpence, new laid, and at Fivepence the dozen when preserved from summer in lime-water. It is probable that some of these articles may be had at a cheaper rate.

DIET OF THE ROYAL INFIRMARY OF EDINBURGH (1843).

I. Low Diet.

			Cost.
Breakfast,.....	{	Bread,.....	3 oz.
		Tea, ½ pint,....	Tea,..... ⅛ oz.
			Milk,..... 1 oz.
			Sugar,..... ¼ oz.
			<hr/> 1d·00
Dinner,.....	{	Panado,.....	Bread,..... 3 oz.
			Milk,..... 2 oz.
			Sugar,..... ¼ oz.
			<hr/> od·57
Supper,.....	{	Tea, ½ pint,....	Bread,..... 3 oz.
			Tea,..... ⅛ oz.
			Milk,..... 1 oz.
			Sugar,..... ½ oz.
			<hr/> 1d·00
Solid Animal Nutriment,.....		0.40 oz.	
Solid Vegetable Nutriment,.....		6.95 oz.	
Total Solid Nutriment,.....		7.35 oz.	
Total Cost,.....			<hr/> 2d·57

II. Rice Diet.

			Cost.
Breakfast,.....	{	Bread,.....	3 oz.
		Coffee, ½ pint,	Coffee,..... ½ oz.
			Milk,..... 2 oz.
			Sugar,..... ½ oz.
		An Egg,.....	2 oz.
			<hr/> 1d·92
Dinner,.....	{	Beef-Tea* (from 8 oz. meat), 4-5ths pint.	
		Rice-Pudding,	Rice,..... 1 ½ oz.
			Sugar,..... ½ oz.
			Milk,..... 2 ½ oz.
			Egg, ½..... 1 oz.
			Ess. Oil of } 1 drop.
			Lemon,... }
			<hr/> 1d·79

* The cost of the Beef-Tea is not all charged against the patients' rations of that article. As the Beef is used for the rations of meat in Nos. 7, 8, and 9, one-half of the cost is charged under that head.

Supper,.....	{	Bread,.....	3 oz.	{	Tea,.....	$\frac{1}{8}$ oz.		
		Tea, $\frac{1}{2}$ pint,....			Milk,.....	1 oz.		
					Sugar,.....	$\frac{1}{2}$ oz.		
							1d'00	

Solid Animal Nutriment,..... 1'45 oz.

Solid Vegetable Nutriment,..... 6'40 oz.

Total Nutriment,..... 7'85 oz.

Total Cost,..... 4d'71

III. *Steak Diet.*

								Cost.
Breakfast,.....	{	Bread,.....	6 oz.	{	Coffee,.....	$\frac{1}{2}$ oz.		
		Coffee, $\frac{1}{2}$ pint,			Milk,.....	2 oz.		
					Sugar,.....	$\frac{1}{2}$ oz.		
							1d'56	

Dinner,.....	{	Potatoes,.....	16 oz.		
		Beef Steak, *.....	4 oz.		
		Broth, 1 pint, ...	{	Barley,.....	1 oz.
				Vegetables,.....	$\frac{3}{4}$ oz.
				Meat,.....	2 oz.
————— 1d'65					

Supper,.....	{	Bread,	6 oz.	{	Tea,.....	$\frac{1}{8}$ oz.		
		Tea, $\frac{1}{2}$ pint,....			Milk,.....	1 oz.		
					Sugar,.....	$\frac{1}{2}$ oz.		
							1d'30	

Solid Animal Nutriment,..... 1'41 oz.

Solid Vegetable Nutriment,..... 13'77 oz.

Total Solid Nutriment,..... 15'18 oz.

Total Cost,..... 4d'51

* In this and all the other diets, the weight is to be understood as applying to the food before being cooked.

IV. *Steak Diet with Bread.*

This is the same with No. III., except that 6 oz. of Bread are substituted at Dinner for Potatoes, and 4-5ths of a pint of Beef-Tea for Broth.

The substitution makes the *Total Solid Nutriment* 13·87 oz., and the *Cost*, 5d·47.

V. *Common Diet.*

		Cost.
Breakfast,.....	{ Bread,.....	6 oz.
	{ Coffee, ½ pint, {	Coffee,..... ½ oz.
		Milk,..... 2 oz.
		Sugar,..... ½ oz.
		1d·56
Dinner,.....	{ Potatoes,.....	16 oz.
	{ Broth, 1 pint, {	Barley,..... 1 oz.
		Vegetables,..... ¾ oz.
		Meat,..... 2 oz.
		od·65
Supper,.....	{ Bread,.....	6 oz.
	{ Tea, ½ pint,.... {	Tea,..... ⅛ oz.
		Milk,..... 1 oz.
		Sugar,..... ½ oz.
		1d·51
Solid Animal Nutriment,.....		0·33 oz.
Solid Vegetable Nutriment,.....		13·77 oz.
Total Solid Nutriment,.....		14·10 oz.
Total Cost,.....		3d·51

VI. *Common Diet with Bread.*

The same as No. V., except that 6 oz. of Bread are substituted at Dinner for Potatoes.

Total Nutriment, 13·56 oz. *Cost*, 3d·90.

VII. *Full Diet.*

		Cost.
Breakfast,	{ Porridge, ½ pint made of Oat-	{ 4½ oz.
	meal,	
	{ Butter-Milk, 1 pint,.....	20 oz.
		od·81

Dinner,.....	{	Boiled Meat,*.....	6 oz.	
		Potatoes,.....	16 oz.	
		Bread,.....	3 oz.	
		Broth,.....	{	Barley,..... 1 oz.
				Vegetables,..... $\frac{3}{4}$ oz.
				Meat,..... 2 oz.
				1d·70
Supper,.....	{	Potatoes,.....	16 oz.	
		New Milk, $\frac{1}{2}$ pint,.....	10 oz.	
				od·80
Solid Animal Nutriment,.....		3·85 oz.		
Solid Vegetable Nutriment,.....		15·17 oz.		
Total Solid Nutriment,.....		19·02 oz.		
Total Cost,.....			3d·31	

VIII. Full Diet with Bread.

The same as No. VII., except that *Bread*, 8 oz., is substituted for Potatoes and Bread at Dinner; and *Bread*, 6 oz., for Potatoes at Supper.

Total Solid Nutriment, 17·29 oz. Cost, 3d·93.

IX. Extra Diet.

Breakfast,.....	{			Cost.
		Porridge, 2 pints, made of Oat-meal,.....	6 oz.	
		Butter Milk, 1 pint,.....	20 oz.	
				od·92
Dinner,.....	{	Boiled Meat,.....	8 oz.	
		Potatoes $1\frac{1}{4}$ lb.....	20 oz.	
		Bread,.....	3 oz.	
		Broth, 1 pint,...	{	Barley,..... 1 oz.
				Vegetables,..... $\frac{3}{4}$ oz.
				Meat,..... 2 oz.
				2d·02

* The cost of the Meat is not all here charged. One-half is charged to the account of Beef-Tea, which is made with it.

Supper,.....	{ Potatoes, 1 $\frac{1}{4}$ lb.,.....	20 oz.	
	{ New Milk,	15 oz.	
			<hr/> 1d'13
	Solid Animal Nutriment,.....	4'85 oz.	
	Solid Vegetable Nutriment,.....	18'58 oz.	
			<hr/>
	Total Solid Nutriment,.....	23'43 oz.	
			<hr/>
	Total Cost,		<hr/> 4d'07

In private practice the diet is divided into that suitable and necessary in the sick-room and in convalescence. As the hospital patient leaves the hospital when convalescence sets in, we may say that our private patient in the sick-room should take what would correspond to from eight to twenty ounces of solid nutriment per day, so as to be on a par with the diet of the infirmary patient. And, if more is necessary, we may consider that convalescence has begun.

Convalescence requires a stimulating diet.

Convalescence requires a more stimulating diet than we have been considering, and comprehends substances taken from the nitrogenous and carboniferous groups, just as before, but more solid and stronger, so that the digestion may be invigorated still further as the natural powers are returning. Still, it must be considerably under what is taken in

health. It will suffice here to mention the principal forms, viz., fish, fowls, and certain parts of the viscera of quadrupeds, as regards animal food.

The whiting unquestionably stands first as the most suitable for invalids at the commencement of convalescence. It is best boiled, but, as convalescence advances, it may be fried with bread crumbs, and then, but not till then, should some sauce be given with it. Flounders are also very good, and may be substituted for the whiting occasionally. The fish tribe require to be well done, in order to be relished by the patient, and to do him good. As the patient gets stronger, the haddock may be allowed, then the herring (from the brown variety), then the turbot, then the sole or cod, and, lastly, a small portion of trout, grilse, or salmon. But these last are strong, and generally cannot be given till towards the end of recovery, and many cannot take them, even in health, with safety.

Pigeon and winged game, among the fowl tribe, are most readily digested, and suitable for the patient. Dr. Beaumont found that the flesh of fowls generally remains in the stomach longer than beef; but, be this as it may, we know that patients find fowl easier to

digest than beef or mutton. The breast and wings are the best parts.

It is, therefore, usual to give a small piece of domestic fowl, as, for example, the breast of a well-grilled chicken, at first; then a small piece of a roasted or boiled turkey, which sometimes is found to be more readily digested than fowl.

Tripe suitable for the sick.

But, perhaps, there is no dish liked so much, or so easily digested, as tripe; and, when well prepared (but all cooks or nurses cannot do this), it is relished exceedingly by invalids generally, and may be given to them whenever the appetite is sluggish or failing, or when solids of a stronger kind cannot be taken, but not much at a time. Sheep's, or calf's head is also liked, and would appear to be easily digested. As the patient gets stronger, little thin slices of tongue are enticing for breakfast.

Eggs.

Then, eggs may be quickly beaten up, and can be given to the patient in a variety of ways; *e.g.*, whisked, and put into a cup of coffee in the morning, patients can scarcely recognise the egg. Eggs may be given in a host of other ways—in sago, arrowroot, sherry, brandy, and the like.

Butter.

Melted butter is not easily digested, and should not

be given without caution, or scarcely at all. Butter spread upon thin toast is suitable to the patient whenever he is able to take bread.

The stronger preparations of farinaceous food may be given with much more freedom now, remembering, however, that the appetite must be watched, and we must not force the patient to eat more than he can digest. It will, therefore, be useful to notice whether he is hungry or not, for, if the appetite is keeping sharp, there is every encouragement that all is progressing favourably. When he is about to resume the ordinary diet of health, lamb (if in season) is most tender, next mutton, and by this time he may be safely allowed to take whatever pleases the palate.

Nothing has been said about fruit or wine, for, on the whole, they scarcely come within the province of the present subject. The only fruit perhaps used is the grape, to refresh the patient and clean the tongue. The fig is also useful as a laxative in some cases, and so are prunes. Orange and lemon may be given freely with the water when the patient wishes a drink : such are useful if prudently given, and sometimes a slice of a lemon may be advantageously put

Forcing not
advisable.

Fruit
principally
used for
refreshing.

into a cup of tea or coffee, which often cheers and refreshes the patient.

Much discussion has lately taken place on the subject of alcohol, in regard to its use in disease. Whatever the illness is, it seems best to obtain medical authority before it is given to the sick, and also advice in regard to how long it may be continued.

During convalescence it should be entirely brought under the same laws as diet itself ; and, when health is established, very few invalids think it necessary to ask whether they may take wine at dinner or not. It need not here be dwelt on. The orders of the physician should be strictly adhered to in this matter, and the invalid should let him know what the effect is ; and the principles which guide him in the other details of the case will assist him in deciding upon whether alcohol is necessary or not. Of course, in cases of extreme prostration or sudden weakness, it is then indispensable.

Sick ought to have variety in diet, although in nothing else.

The sick person may permit the withered flowers to remain for many days, while their fragrance is completely lost ; he may put up with the mustiness of the clothes, or the old papered walls, or the general want

of variety or tidiness throughout the room ; but no invalid will consent to sameness in his dietary. Therefore, a number of receipts for invalid cookery, which is of essential importance to every nurse, is appended at the end of the volume, in which place it is thought they can be more easily found, for the sake of reference, rather than in their proper place here.

III. *Punctuality in administering Sick-Diet.*—In-
decision in this matter simply amounts to this—
namely, complete indifference to whether the invalid
recovers soon or not. Undoubtedly, it is best to have
meals at stated hours, whenever the invalid is strong
enough to take and retain a moderate quantity at a
time. Nevertheless, if there is great weakness, it
would simply be ruinous to adhere to this ; therefore,
no definite rule can be laid down as to whether food
ought to be given every two, three, or four hours,
or even after a shorter or longer interval. In the
majority of cases it would be imprudent to allow a
longer interval than three hours to pass without
giving some nourishment. Frequently, when the sick
person is unable to take a cup of beef-tea every three
hours, he may be quite equal to take one-third
of that amount every hour, or a tablespoonful every

Give food
to the sick
statedly.

half-hour, until more strength returns, and he is able to take a greater quantity at a time.

The weak
don't ask
for food

When there is extreme weakness, as the result of some acute affection or chronic disease, the invalid very rarely *asks* for food; but every nurse should at short intervals *present* some to him, with more or less precision and punctuality. If so, he will rarely *refuse* the offer. It is a common feature in sickness, that when the invalid is asked if he *will* take this or that, he says "yes;" but, *when* the nurse *brings* it, he won't taste it—so that it is better to have whatever is intended always ready at hand, to be taken at once.

A point
every nurse
must attend
to.

IV. *Cleanliness and Neatness in Serving Sick-Diet.*

—Very much will depend on the way in which food is presented to the invalid whether he will take it or not. It is very curious and interesting to observe the differences in this respect. Even should the food be otherwise well-cooked, unless it is served with scrupulous cleanliness, attention, and neatness, the invalid will not take it, or what he does take is not so much relished. He can bear or put up with *much* that may not be pleasing in the sick-room, and its want of convenience and untidiness, but doubtful food he cannot: he will prefer to go on without it rather

than take it. Neatness is a most important item. The little table nicely covered, with the dishes clean and well arranged, and the small allotment exactly put down, will tempt the invalid to take what is presented. The nurse should study to present no more than the sick person is able to take at one time. But, should there be any left, it ought to be removed from the patient as soon as he has finished, and put away out of his sight. Never leave food at the patient's bedside. Yet, very frequently we see more presented to the invalid at one time than he could manage in days, under the impression that it is not nice to present him with such a meagre supply—it looks *mean*. The nurse or relative prefers to stick to the notion that it won't do to put him on "scanty fare, to which he has never been accustomed," rather than consider what would be best to restore lost health and strength. Numerous instances of this might be quoted. By attention to this point, great comfort may be given to the patient. Not only will Crumbs. more food be taken with far greater relish, but soiling the clothes and allowing crumbs to fall on the bed—which is annoying, and proves distressingly irksome to one who is constantly lying—will be avoided.

CHAPTER IV.

THE METHOD OF USING DIFFERENT APPLIANCES.

BANDAGES, dressing sores, blisters, poultices, enemata, baths, hot applications, are frequently necessary to be had recourse to, and every physician knows how imperfectly these are usually applied; indeed, it is sometimes questionable whether more injury is not done by the careless way in which appliances are used, than if they were never employed at all. It will be profitable, therefore, to consider here some of the rules which should guide any one in the use of these different, yet necessary, means of treatment.

Bandaging. I. *Bandaging*.—The nurse should always bear in mind the principles on which a bandage is used, else she never will perform the art efficiently. It also requires practical training in order to put a bandage

on properly, for common sense can never indicate the essential points to be noticed, and, at the same time, there is no secret or difficulty about it; anyone who is willing to learn bandaging must have one in hand while perusing the following directions, and apply it as she goes along, otherwise these directions will be lost, in a great measure, as well as tedious and uninteresting to the reader. One of the chief things is to give support by equable and continuous pressure. The *whole breadth* of the bandage should be applied to the part—not merely the centre, nor the centre and one edge, but the centre and both edges, or margins, of the bandage, should lie flatly on the part. In bandaging a limb, it is generally impossible to accomplish this, if the bandage is simply rolled round, because the limb varies in thickness; therefore, we have recourse to “turns” to “Turn.” enable us to equalize the pressure. By “turn,” or “twist,” or “reverse,” is meant the manipulation whereby the one margin takes the place of the other, so that the other side of the bandage is in juxtaposition with the limb.

The uses of bandages are different and various. Uses.
A bandage may be used for affording general or

partial support—as, when the whole leg is bandaged for an ulcer, or the ankle for a sprain. It may be used for preventing increase of swelling in a part, or assisting in lessening it. It may be also used for keeping the skin from breaking at any particular part, by exercising a general pressure on the parts around—as, when the skin is tender on the leg, or when there are varicose veins, in which case it might be very useful in arresting hæmorrhage by its pressure. Then, it is much used for keeping parts at rest, and also for keeping dressings on sores, and the like.

Unequal
pressure bad.

It is important for anyone using a bandage to notice that there is no unequal pressure, because it might produce oedema of the parts beyond, by arresting the circulation of the blood; and careless bandaging has brought on—although rarely—gangrene, or mortification of a limb.

To bandage
well attend
to little
things.

Bandages are made of different kinds of material, but the best of all is *bleached calico*, well-washed, dried, and rolled carefully and compactly up in the form of a roller. The unbleached is usually recommended, but it is inferior to the bleached, which is cleaner, cooler, nicer, and altogether more easily managed; besides, there is little difference in price.

The firmer the bandage is rolled up, the better, and so it is named "roller." Unless these minute things are attended to, it is more difficult to bandage a part well, and, in the hands of those who are inexperienced, likely to lead to irregularities.

A bandage for the foot and lower leg should be Size. about three inches wide, and six or eight yards long; but, of course, if the foot is small, *e.g.*, a child's, these dimensions will be too great. Therefore, the width and length of the bandage must be in proportion to the size of the part to be bandaged.

For the hand and arm, one will be required about two inches broad, and so long as to reach the affected part and cover it completely—generally about five or six yards long, to continue it to the elbow.

It is well to bear in mind that there should be no No joining. "joining," if possible, in a bandage. The six or eight yards should all be on one end. When it is inconvenient to get it all on one end, great care ought to be taken to get each piece of the same width, and the best way to obtain this, is to measure the piece into the widths required, and then cut. The joinings ought to be as small, and simple, and perfect as possible, not slimly done and hurried over. The

frayed edges should all be cut with the scissors, and kept quite short.

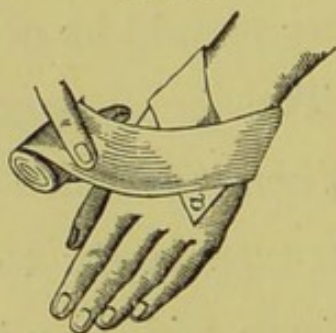
Bandage to
be inelastic.

As a rule (almost, if not entirely without exception), all bandages should be unyielding—non-elastic—for the use of a bandage consists in exercising an even and constant support; if otherwise, it is worse than useless. An elastic bandage is used only under very exceptional circumstances; and, indeed, its use is somewhat doubtful. An “elastic stocking” would answer the purpose far better than an elastic bandage, because the pressure would be more equal from below upwards.

How to begin
a bandage.

The first, and one of the most important points in applying a bandage, is to know how to fasten the

Fig. 12.



bandage at the very commencement, and, to show how this can be done, the drawings represented in Figs. 12, 13, and 14 are made. If the bandage is begun too slack at the bottom, it is comparatively of little

use; but it is very easy to fasten a bandage if this point were only attended to. The method here represented is perfectly effectual and simple. The catch of the end of the bandages, as seen in Figs. 12 and

13, is all that is required. Fig. 14 shows a further stage of the same; afterwards the bandage may be carried downwards to the toes, or it may at once be proceeded with upwards—if it is merely for the purpose of retaining appliances, and nothing more. In general, it is best to begin at the farther extremity of the limb, after the bandage is fastened, and continue the bandage upwards, as far as may be considered necessary. This is seen better in fig. 15. After the bandage is fastened, not more of it should be unrolled at a time than from three to five inches. The limb ought to be placed in a comfortable position.

Fig. 13.

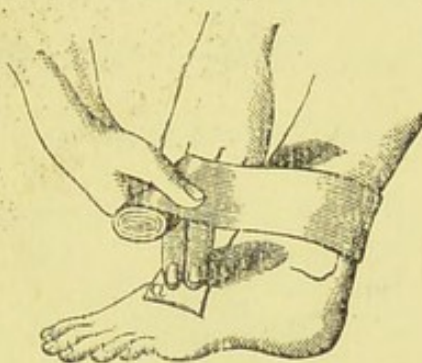
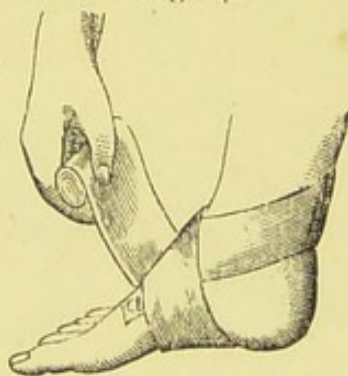


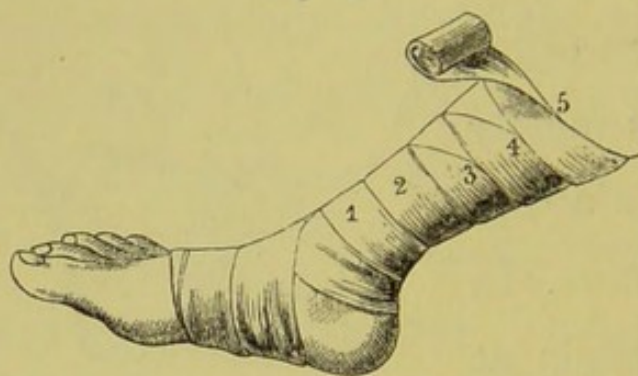
Fig. 14.



So long as the bandage lies *evenly* on the part—*i.e.*, Bandage to lie smoothly. with the two margins and the centre all in accurate contact with the limb—no “turn” or “twist” is necessary. This is well brought out in Fig. 15, where, note, that 1 and 2 are representations of what actually takes place in bandaging of the leg; and here no turn is requisite, as the margins and centre of the

bandage lie in actual contact with the skin ; but at 3 both margins would not be in contact if continued

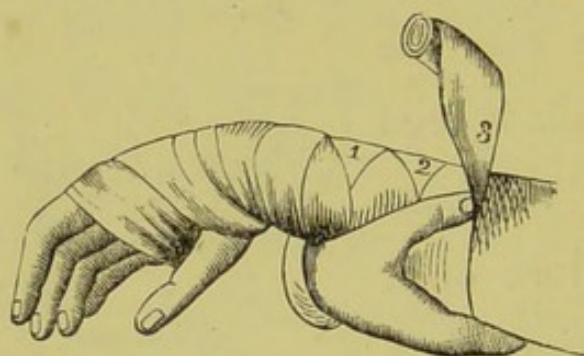
Fig. 15.



parallel with 1 and 2 : one would be lying on the surface of the limb, but the other would not, and therefore a simple turn requires

to be given. This is always necessary when the part

Fig. 16.



bandaged is not of equal thickness, and the turn must be given wherever the increase in thickness begins. The same may be seen in Fig. 16, in

bandaging of the hand and arm.

The nurse should always notice that the bandage ought to be begun at the end of the limb furthest from the heart, and for this reason, that it favours the return of venous blood, and excites the torpid circulation.

Pressure.

There is one more point to bear in mind in putting on the bandage, that the pressure must be *equal, constant, and steady*. One round of the bandage must

not be tight, and another slack, but all firm alike. In making a turn of the bandage, as seen at 5 and 3 of Figs. 15 and 16, the unrolled portion of the roller must be kept quite slack, while the other hand prevents the applied part of the bandage from getting loose or undoing itself, and then a curve of a quarter circle is made with the roller in the left hand, so as to make the "turn." If the unrolled part is kept straight and tight while the turn is made, it is impossible to bandage correctly, as there will be folds or wrinkles, which ought to be avoided.

In fastening the bandage, after it has been carefully put on in the way now indicated, it may be done in one of three ways: (1) by means of a pin, which is the best, perhaps, in the adult; or (2), it may in the adult or child be split at the end, torn up so as to surround the limb, and fastened with a common knot; or (3), it may be sewed with a needle and thread; and this, in the case of young children, is, no doubt, the best, or wherever there is any likelihood of the pin doing any harm. The plan of slitting up the end is not a very advisable one, as, when tied, it is apt to be tighter than the part bandaged, which would act injuriously. It should not be done, if possible. The

Ending of
bandage.

pin can be easily used, and is the plan generally adopted.

Finger
bandages.

Bandages for the fingers or toes are themselves much smaller, just in proportion to the part, and are applied in exactly a similar manner. It must first be fastened in a similar way, rolled evenly, and a turn given whenever the part increases in thickness and the full breadth of the bandage is not in contact with the skin. But here, if the finger alone is to be bandaged, it must be finally fastened with a thread; a pin, even a small one, is inadvisable.

Neatness.

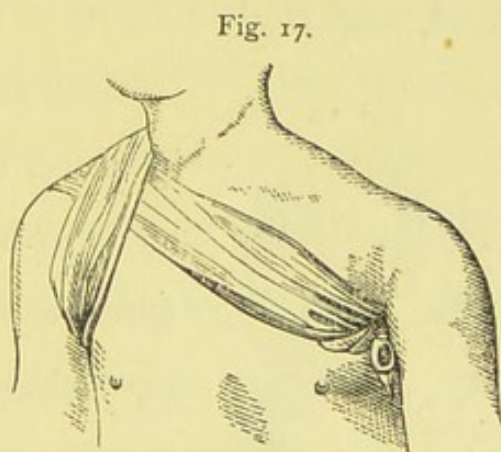
When a bandage is well put on, *e.g.*, on the leg, it is neat; if it is not so, it generally is not put on well, or is so in consequence of hurry or carelessness. Fig. 16 looks more clumsy than it should; the bandage is made to appear too broad for the hand and arm. There is another point which has not been alluded to. The figures give a wrong impression, though most useful for conveying the idea wanted. In bandaging the leg, for instance, each round of the bandage should cover about one-half of the one that preceded it; this is always to be attended to in good bandaging, and all the turns should be made in the same place, so that a line passing through the angles

would be perfectly straight. (See 3, 4, and 5, in Fig. 15.)

Figs. 17, 18, and 19 represent the applications of three modes of using a bandage which are often required. Fig. 19 may be said to be an ordinary bandage, made in the same way as before, but the other two are essentially different; that of Fig. 17 may be easily made from a large long handkerchief, while Fig. 18 is called a "four-tailed" bandage because it has four ends.

Fig. 17 shows how to keep a dressing or poultice in the armpit in a very simple and efficient way. Bandage for the armpit.

A large common square handkerchief is folded as in the figure, and its centre is placed upon the dressing in the axilla; it is then taken up at the back and front, and crossed



over the top of the shoulders, and carried, as seen in the figure, to the opposite armpit, and knotted there. Care must be taken that the knot does not press unduly, and irritate the skin, which becomes tender sometimes.

Four-tailed
bandage for
head.

The bandage represented by fig. 18 is perhaps of more importance, but not so well known. A piece of

Fig. 18.



calico, about eight inches broad, is taken, and each end is divided into two equal parts, and torn up as far as to within three inches of the centre: this makes a "four-tailed" bandage. The ends that proceed from the part of the bandage which is on the forehead are taken

and bound at the back of the head; or, better still, for it will hold on better, is crossed at the back of the head, and tied in front of the neck. The other ends,

Fig. 19.



Simple roller
bandage for
head.

coming from the posterior margin, as it were, are fastened under the chin, as represented in the figure. Pressure can be made to bear on any part, by using this bandage, with a little care in adjusting it.

The mode of bandaging as seen in fig. 19 is not of such general application, but is useful for a nurse to know. It simply consists of a roller being carried horizontally over the forehead and round the head,

and crossed at the part where pressure is required—*e.g.*, over a compress or other dressing on the temple—and secured by a stitch; then the roller is brought vertically over the head, and crossed again, and retained by another stitch, if there is any possibility of its changing or altering its position.

Every nurse, or person who requires to apply a bandage, should try to use it somewhat after the manner now described, and it is not difficult; but few nurses understand the rudiments of bandaging. There are, of course, many other cases where bandages are used, but the surgeon generally requires to put them on himself, as in the case of hernia, of broken leg, and similar instances. If the nurse, or whoever uses a bandage, understands the principles now attempted to be explained, they will, with little difficulty, be able to put on bandages on other parts, when she sees how the surgeon has put it up first.

On no account ought the bandage or dressing to be undone by nurse or patient, if the surgeon or physician has given orders to that effect, as much injury might accrue.

Nurse or
patient not
to undo
dressings.

II. *Dressing of Wounds and Sores.*—There are a great many persons who have, *e.g.*, ulcers on the

How to
dress ulcers
or wounds.

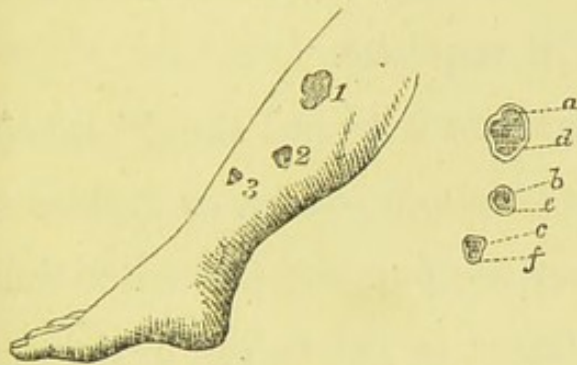
leg, who are not confined to bed, it may be, nor can they provide themselves with a nurse or one to dress it, and generally they "dress" it themselves; but is it dressing? Surely a pocket-napkin rolled round the leg (which may be seen any or every day in our dispensaries) cannot really be considered dressing. The same person will, on inquiry, say that the doctor ordered all this. The class of people who suffer from large and long-standing ulcers of this kind are ignorant usually, and do not understand or remember the particulars ordered. Nurses seem much in the same predicament; even those who have been trained in our hospitals are not particular enough in this matter, probably because they do not sufficiently value the absolute necessity of keeping sores of this kind perfectly clean and well dressed.

When ulcers
are healing
dress separately.

Fig. 20 is specially drawn to illustrate this subject. Let us suppose for a moment that 1, 2, and 3 represent three ulcers on the leg, and that they are to be dressed, and are healing, with healthy granulations on them—what is generally done is to cover the whole with lint dipped in a lotion, perhaps ordered for the purpose, and a large piece of gutta-percha tissue covering it and surrounding the leg, and a napkin

over that. Sometimes, again, those who think they understand dressing sores better, or pretty well, have

Fig. 20.



a bandage instead of the napkin; others make the oil-silk or gutta-percha tissue (for virtually, it may here be said, they

answer the same purpose, the latter being as good as and cheaper than the former) cover it more neatly; but the bandage is put on badly.

Now, *a*, *b*, and *c* are intended to point out what should take place, namely, on ulcer 1—a piece of lint its exact size should be dipped in the lotion prescribed, and applied, and this ought then to be covered by (*d*) the gutta-percha tissue, which is larger than the ulcer and its covering, and prevents any part of the lint (*a*) from getting dry, which would be the case if even the very *edge* of the lint came out under *d*. Ulcer 2 ought to be dressed *separately*, in exactly the same way, and so ought ulcer 3, by means of *b* and *e*, and *c* and *f*. The lint ought to cover the ulcer, and no more, and the oil-silk should extend a little beyond. Nothing more is requisite than a well-

applied bandage. When the ulcer is healing, the lint and oil-silk should gradually be made smaller and smaller. The appearance of the ulcer will alone decide the kind of lotion requisite.

Sponges
applied to
wounds
injurious.

It may here be noticed that a wound should *rarely*, if *ever*, be washed with a sponge,—tow, or a piece of lint or flannel, will answer the purpose far better than a sponge, because the latter is apt to retain the discharge, even although great trouble is taken to wash it, and even then it will not be perfectly free, or answer so well as lint.

When the wounds or ulcers are in a sloughing condition, then there is no need of using the dressing above referred to ; but poultices, or other hot applications large enough to cover the sores fully until the slough separates, and until the healing process is begun. Then dress each separately.

Cleanliness
favours
healthy
granulations.

Wounds ought to be washed twice a day, at least, before being dressed ; this removes the discharge, which some imagine is useful as a covering and protection for the tender granulations ; but this has never been proved, and, indeed, the reverse is most likely true, as it will procreate itself more and more about the sore, and certainly engenders filth ;

while, if removed, the healing process is strengthened and more progress obtained. Yet, there should be no force used in removing any part of the discharge, simply washing it gently, and allowing the water to fall on the surface of the ulcer; or sometimes it may be necessary, from the nature and situation of the wound, to syringe it. In removing the dressing from a wound, care must be taken not to pull it off too rapidly, more especially if it is adherent to the edges or surface. If adherent, it should be loosed by bathing freely with warm water, or, in very painful cases, a poultice should be applied to effect the same purpose.

Lately, the ingenious process of "engrafting," by Process of 'engrafting.' which term is meant the planting of a healthy piece or pieces of skin on a large or callous ulcer, with the view to heal it up quickly, has been, to some extent, tried. Much care in dressing and washing is here required. Indeed, by washing, the recently-implanted skin may be removed, so that for some days all that is done is merely to remove the loose and copious discharge; and, occasionally, it will be advisable to leave it for a few days altogether, so that engrafting can be done only when the discharge is small, if it is

to succeed. The success attending this novel method is very various, and the accounts of it are conflicting. Undoubtedly this method is exceedingly beneficial in healing up a large sore, but its success is by no means uniform, or at least cannot be always depended upon.

Hospital
training
necessary.

Practice rather than precept is necessary for the nurse, in judging the character and nature and stages of ulcers and wounds. Nothing is so useful in this respect as some hospital experience, for there these ulcers may at the same time be seen and compared in their different stages.

HOT APPLICATIONS.

Fomenta-
tions.

III. *Fomentations and Stupes*.—When there is severe pain, there is no external application which can afford a more speedy effect than medicated fomentations or stupes. A fomentation itself is sometimes enough, and may always be had by taking two or more folds or plies of thick flannel, so large as to cover completely the pained part, the flannel is dipped in the boiling water, wrapped in a towel, and wrung well, taken out and put on the part, then covered with oil-silk or a large flannel-roller to keep it longer warm and preserve the clothes from being wetted. This

should be changed when it gets cold, or every half-hour, until the pain abates.

When simple fomentations are insufficient to allay the pain, anodynes are used with the above, and generally this is called a stupe. Medical advice is usually had recourse to when this is necessary, and the doctor directs the form of stupe to be used. The chief are turpentine, laudanum, Battley's sedative solution—half-a-teaspoonful of either is very efficacious for allaying pain. This should be *sprinkled* on the flannel when wrung; it will then diffuse itself over its whole surface.

IV. *Poultices*.—It is strange to notice the varying opinions with regard to poultices. Men of high standing contradict each other with regard to the making of them. It is certainly true that we have nothing definite of their action to prove which kind is best. There is a vagueness about the phraseology that seems somewhat unaccountable. One will advise that the poultice should be made into a cake which can bear to be "thrown to the roof of the house" without breaking asunder, while another, of equal experience, says that such a one is of little or no use. No experiments have been recorded, so that

Poultices :
mode of
making not
settled.

no decision can be come to here. But, it seems most likely that both ways may be right, for the one sort may be used for heat alone without moisture, the other may be for both. Poultices are useful for relieving pain, for discussing serous exudations, for promoting the progress of suppuration when it has once begun to be formed, or for cleaning a sore after the skin is broken.

Size.

A poultice should be made as light as possible, especially when it is to be applied to parts where its weight will cause uneasiness, otherwise a good large poultice will retain the heat much longer, which will be advantageous. The "size" of a poultice has reference to the extent of surface or part affected, and therefore a "large poultice" is a relative term meaning that the poultice should completely cover the affected or pained part. But, how often, when the doctor orders a large poultice, mistakes occur—therefore, what is now stated should always be remembered ; and, if the pain is generally diffused over a large surface, then the larger the poultice is the better, so as to envelop the whole part.

Continuous
application.

When poultices are once begun, their action should be kept up continuously in order to be beneficial—not

a poultice on for two hours, then off an hour, and on another; as soon as one poultice gets cold, another should be prepared ere it is taken off, and applied at once. If this is not attended to, it is much better to keep the body *warmly clothed*, for the irregularity would do harm, in all probability.

The poultice should be put up neatly, and so as to Soiling. protect the person and clothes from being soiled. In private practice, it is an excellent plan to have a muslin bag prepared to hold the poultice; this does not in the very least prevent the heat and moisture from coming in contact with the part desired, but effectually prevents all soiling.

Linseed-meal is now universally admitted to be Material. the best material for a plain poultice. Some prefer to pour boiling water on the linseed-meal in making the poultice, while others advise the linseed-meal to be gradually poured upon the boiling water—in both cases, brought to a proper consistency. The latter method is the best, apparently, for by this mode the heat is most likely to be longer retained than when the water is poured on the meal.

When medicinal agents, for disinfecting or other Medicated poultice. purposes are required to be used to the sore—as, *e.g.*,

charcoal, solution of carbolic acid, Condy's fluid—they may either be mixed with the poultice, or put on its surface. It is, perhaps, the gentlest way to mix the agent with the poultice, or, if required stronger, the effect may be directly obtained by putting it simply on the surface of the poultice.

In applying the poultice, the linseed-meal may be put in actual contact with the affected part, if we wish to get the full effect from it; or, when it is not necessary for purposes of disinfection or cleansing, a piece of thin muslin between the poultice and skin will be useful, and this is the easiest way to get it taken off at once and completely. The poultice should always be put on gradually, not abruptly.

Bread
poultice.

A *bread* poultice is usually the kind applied to the face and hands, from its convenience rather than anything else, for it has no other advantage over the linseed-meal. A slice of an old loaf is taken, with the crust removed, and boiling water is then poured upon it and stirred until made into a consistent mass.

Mustard
poultice.

V. *Mustard Poultice*.—Put as much mustard powder as may be considered enough for the poultice into a basin, pour water upon it, and stir it; it should be rather more consistent than what is used generally at

table. There should always be a piece of thin muslin rag next the skin, and the poultice should not be spread thickly; generally there is a great waste in this respect. The time a mustard poultice should be allowed to remain on depends entirely on the strength of the skin and the endurance of the patient.

When it is not required to blister, care, in the case of children and those who are insensible to pain, should be taken, and the edge of it raised occasionally to see what effect it has had. It should, at the same time, be left until it produces some counter-irritation on the part.

Perhaps a better, and certainly a more convenient, Mustard-leaves. form is the mustard-leaf. The "leaf" being always ready, can be used at anytime to any part that may require it. Although usually reliable, the strength sometimes varies; for some leaves do not have the same effect on the same person at one time that they have at another. The effect should therefore be watched. The mustard-leaves are certain to become more generally used as their advantages become known.

Mixed poultices, with the exception of linseed-meal Mixed poultice. and mustard, are comparatively disadvantageous,

and have nothing to recommend them over simple poultices. All are used for the heat they produce, and little else, so far as regards any inherent quality of the material used, unless, of course, medicated.

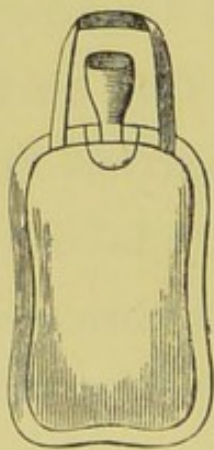
Hot dry
applications.

VI. But hot applications may be entirely of a *dry* nature, and such are hot dry flannels, hot-water bag, hot-water plates and pans adapted to different parts of the body, salt bags, hot bricks, and such like.

Flannel we pass by with merely mentioning that it is a good method of heating, and there is less risk with it than with poultices if the latter are not used continuously. Cotton wadding retains the heat very well also, when rolled about a part.

There is, perhaps, no instrument more useful in the sick-room than a hot-water bag, a representation of

Fig. 21.

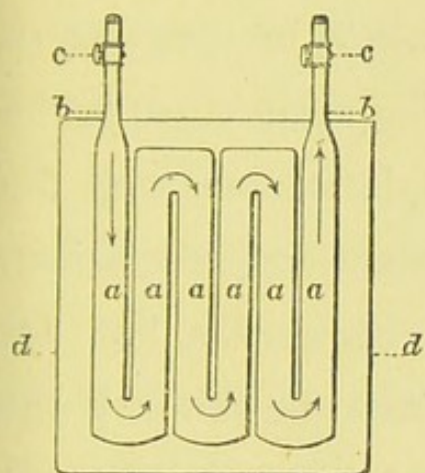


which is given in Fig. 21. It is made of caoutchouc, and not expensive, and may be applied to any part of the body. It is made watertight, and when used should not be more than half-full, or thereabouts. Fig. 22 is a drawing of a bag, invented lately by Dr. Robertson, for regulating the temperature (either hot or cold may

be used), and seems to answer the purpose very well,

and will become of much more use when this method

Fig 22.



of treating disease is fully recognised. Both these methods of applying heat are most useful, and these bags retain the heat for many hours, and are not heavy or troublesome.

When there is much pain over the region of the liver and stomach, a pan shaped to the part may be had, which can contain water at a temperature such as may be thought desirable to relieve the pain or uneasiness. The same may be said of the hot salt bag or hot bricks; the heat may be obtained from any, and, if one fancies the one more than the other, there is little to prevent the choice being interfered with, for these again act in consequence chiefly of their heat-giving powers, and thereby relieving pain.

One precaution is necessary, namely, that these means of artificial heating must not be pushed too far, independent of other measures. Sometimes it may cause sickness, or a feeling of weakness or faintness, especially when applied near the stomach. At other times it may cause sloughing,

Heat in-
judiciously
applied
hurtful.

when the vitality is very low, and the applied heat great.

Friction a
means of
treatment.

VII. *Friction* must not be omitted in speaking of anything which relates to exciting an increase in the temperature of the body. Simple friction with the warm hand is an excellent excitant and rubefacient. It should be done gently and constantly, but not forcibly, nor of a nature to irritate the skin. If the hand is rough, or if there is a tendency to cold sweat on the surface rubbed, it is well to be doubly careful, and use a little oil or oxide of zinc ointment, or a little cold-cream, to preserve the skin from chafing when it is being rubbed. Friction is useful as an absorptive agent, as a soothing agent, as well as an exciter of heat.

The good effect of friction in aiding absorption and affording great relief may be especially observed in the case of the breast when distended and engorged with milk. Friction, however, must be gently done, not as if polishing a table, and it will not irritate if some emolient be used either on the hand or on the surface rubbed, when the skin is very dry or apt to chafe.

Its tonic effect is admirably seen when used after a

bath, in exciting warmth and equalising the circulation over the surface of the body. This is now often had recourse to by what is termed *shampooing*; it is most suitable in chronic diseases and asthenic conditions of the system.

The soporific influence of friction is well known, and often seen and experienced in the sick-room. But the manner in which it is performed should be attended to particularly, for on this chiefly depends its action. A little practice will teach one how to do it, and what suits the patient best.

Shampooing
a general
tonic.

VIII. *Blisters*.—Blisters are often required, but can scarcely be recommended to be done heedlessly without medical advice. The physician, therefore, will direct the blistering material. Generally it is done by means of cantharides or mustard. The plaster of cantharides is the common form, but “blistering fluid” is much more convenient, only requiring to be used with a brush, and nothing further is necessary. This of all blistering agents is most efficacious and easy. It produces little or no pain if properly managed. The mustard-leaf, perhaps, comes next, but for one who cannot bear pain well, it is almost impossible to keep the leaf on for a sufficient

Blisters.

length of time. There are various other blistering agents, but none more effectual than those mentioned.

Uses and
effect.

The *rationale* of it is that it produces an irritation on the surface of the skin to take away pain at another part, or produces absorption, or hastens if it does not lessen inflammatory action. A blister, then, means that there is an accumulation of serous matter immediately underneath the cuticle. Unless this is the case, the material has not succeeded in effecting the desired end ; but, at the same time, it may produce a partial effect in irritating the skin.

When blistering material is applied to the skin, its first apparent effect is to make the skin red, then this gradually goes on until minute portions of serous fluid aggregate together ; and, if the material acts further, these separate globules of serum, as it were, will all unite and form one large whole, so that the cuticle is completely raised. This is all we expect from a blister, and this itself is generally called a blister, so that the blistering material and its effects are each called "a blister."

Save the
sick from
unnecessary
pain.

The management of the blister and the effect produced is what the nurse has to attend to. The edge of the plaster may be raised, and it will then be seen

if it has been effectual ; and as soon as this is the case the material must be taken away. It should be raised with care, not hurriedly, for it is best to preserve the cuticle entire. The nurse should then with a needle make two or more holes at the most dependent part, to allow the fluid to come away altogether, and the skin should not be allowed to go into folds or wrinkles, but smoothed down flatly. A piece of old linen rag without any seam in it is then taken, and some cold-cream or simple ointment spread upon it, then it is laid over the blister, some cotton wadding put over this, and allowed to remain for about twelve hours, when it may be gently removed and examined. If any more fluid has been secreted, it should be let out in the same way as before ; if not, the same dressing is put on again ; and during all this time the sore is beginning to heal, and a new cuticle takes the place of the one which has been raised by the application, and in course of time the old comes away. The skin ought not to be taken away unless the sore is wished to be "kept open," when, of course, more counter-irritation will be obtained.

If part of the dressing sticks into the raw surface by the cuticle breaking, from some cause or other,

it becomes painful to remove it; then sometimes it is better to cut that part of the dressing and leave it attached, if only a small part is adherent, and if it be desired to allow the blister to heal up. When this latter occurs, it is the result of accident or the want of proper attention. This part will gradually separate, and the whole ought to be dressed as before.

How to remove fluid.

It is a useful precaution in opening a blister to have a thick towel immediately underneath it, to protect the adjacent skin from the action of the acrid hot fluid which escapes from the blister; a towel, or some cotton wadding, or a saucer, will receive and retain the fluid quite well. It has been purposely mentioned that a needle should be used for opening it, as scissors would not be so manageable, nor do it a bit better—not even so well, as the hole would be bigger.

The dressings of a blistered surface ought to be kept very clean, and changed often. A slovenly dressed blister may be the means of causing great pain and uneasiness, and a source of irritation to the patient; it may excite a different pain, worse even for the patient to bear than that which the blister was originally intended to remove. Yet, the entire blame

is usually put on the unsuccessful nature and effect of the blister, and not upon the want of care or ignorant dressing. This mistake may be often noticed.

With regard to the manner of using the different embrocations and liniments, the nurse should attend strictly to the directions given about the quantity, how long and how often to be used, and nothing further need be said on the matter. The surface of the part on which the liniment is to be applied should be prepared by sponging it with tepid water, and drying it, then rubbing it for a short time with the dry hand, and it is better to put the substance to be rubbed on a piece of flannel, unless it is perfectly simple, when the soft hand will be the best. The nurse should not be forward in using the hand, as sometimes vesicants are applied, and would produce an eruption on the hand similar to what would be produced on the part rubbed. There is no harm in using the hand when any simple liniment is used, but this should be ascertained or known.

IX. *Baths*.—There can be no doubt that the effect of a properly-managed bath on a sick person is striking and wonderful; yet, occasionally we see baths carried to an extreme, and a “pack” lauded as a cure for

Embrocations and liniments.

Hints about baths.

everything. Here the remarks made must be confined more especially to the management of, and some hints about giving a bath to a sick person. When a bath is ordered for some person suffering from a serious malady, the nurse should never trust to her own feelings with regard to its temperature, but prove it by means of the thermometer, which is not difficult, but simple, quick, and precise. Yet how rarely do even "trained" nurses practise this, and there certainly is no sufficient reason or excuse why this should be allowed.

Different
baths.

Very vague are the conceptions and ideas among nurses and members of a family about the temperature of baths. There is no attempt at accuracy whatever. Now, these trifling matters are noticed and dwelt upon here, for they are the means whereby discomfort or happiness may be caused, just in proportion to their management being bad or good. Note, then, the temperature of

A cold bath ranges from	60° to 70° Fahrenheit.
A temperate bath (chill off),	75° to 85° „
A tepid bath,	85° to 93° „
A warm bath,	93° to 78° „
A hot bath,	98° to 102° „

If this distinction were observed, and the thermometer

used, how great and good would the effect be, both to the sick person and to science.

In sickness, general baths are either warm or tepid. Management of a general bath. The warm bath is most useful, and that generally ordered, but the difficulty in using it is to have it large enough and convenient for the patient. The amount of water should be such as not to materially alter its temperature for fifteen minutes—the time which the patient may safely be in the bath, but sometimes they may remain twenty or thirty minutes. If the temperature falls, a fresh supply of hot water should be added, so as to keep it, as near as possible, the original heat of the warm bath.

If the patient is able to go into the bath-room, and have his warm bath in the usual place, this is the most desirable, but, if not, any artificial bath can only be of partial use, as regards the whole body. But, under the circumstances, the largest place to hold the warm water should be obtained, and a blanket used to protect the patient from cold while using it. If the water is of the limited amount now indicated, the rest of the body should be bathed with or by means of a sponge, which should be kept constantly in action. When the invalid has remained in the bath

for the time specified, a dry, soft, rough towel should be industriously used; after that the hand, by means of the shampooing process, is very advantageous, especially when there is a tendency to any want of nervous energy, as judged by the condition of the skin and muscles.

The nurse should pay particular attention to the temperature of the room when she gives a bath to a sick person. It should not be under 60° Fahrenheit.

If the bath is given at this temperature, and under the precautions noted, both as regards the bath itself, and also the drying and friction, there can be no use for the process of "packing," which is not of so general application from the inconvenience of it in wetting the cloths, and thereby producing a chill to the patient, and also because it requires far too much care and trouble when it is given to be much used.

Uses.

Baths are useful as sedatives of the nervous and vascular systems, and have a tonic effect. By thus acting on the skin, we alleviate pain, sometimes remove it, soothe irritation by relieving the heat or causing perspiration, the vascular system becomes less disturbed and violent, sleep is procured, and the person is refreshed, the weary feeling passes

away. These are among the effects of a general warm bath.

It is supposed that the rash in the exanthematic group of fevers comes out sooner and more easily when a bath is used, and it is here that many use the "pack," so advantageously, and thereby have gone to the extreme of always using it; but it is needless to allude to this process further. The bath is only one means—no doubt, a great one—whereby nature may be aided. We now turn to baths for particular parts of the body, and here we have chiefly to deal with hot baths, and, therefore, at a temperature of from 98° to 102° Fahrenheit, at least, sometimes higher, for generally this class is given as hot as the sick person is able to bear them, but not so hot as to induce faintness. Two need only be mentioned here, the foot-bath and the hip-bath.

The foot-bath, although used locally, exercises an Partial bath. influence on other parts, and is so used for colds. The vessel should be of such a nature as to allow the water to rise nearly to the knee. This increases the action of the skin, which ought to be red when taken out of the water; the feet ought to be quickly dried, and the body kept warm. It may be noted

here, that if a bath of this kind were allowed for the whole surface, it might likely prove very dangerous, and should never be attempted unless special medical advice is obtained. This requires to be doubly guarded against when there is heart disease.

The hot hip-bath is most serviceable on account of its local effect. The body should be covered and protected from cold ; it is best at bed-time, and continued no longer than fifteen minutes at a time. The hip-bath is only used hot when particularly ordered, and, if merely to relieve pain, the tepid bath is enough, or a temperature of about 93° Fahrenheit.

Bath for a
convalescent.

The tepid bath is, perhaps, best when convalescence is established, or what is generally done now, is, to have the tepid bath first, for ten or twelve minutes, and then the spray bath (cold) round the body, instead of the old cold shower bath, then dry with a proper bath towel, and rub with the hand for some time, having a bath glove over it to excite the action more speedily.

Medicated
baths.

Vinegar, salt, and acids, are sometimes used in baths, but advice should first be had before these are had recourse to. The doctor must give special directions regarding them.

Until very lately, the cold bath was not much used Cold bath. in sickness, or thought at all advisable. Dr. Day drew attention to it lately, and Dr. Hadden gave his experience in a case of fever, but it would be out of place to enter on this here. At the same time, great relief may be obtained when there is excessive heat and irritation of the hands, and face, and feet, by the application of ice, more especially in hot weather. In such cases it is as much relished as warm sponging.

By means of Dr. Robertson's instrument for regulating the temperature, cold may be applied as well as heat. On the whole, it seems advisable now to try cold for relieving pain as well as heat, for it has certainly been proved that it does no immediate injury, and, with care, may be as soothing as heat. But whether cold baths for the whole body are useful means of treating disease has yet to be proved and carefully demonstrated.

X. *Spongeo-piline* is a most useful method of apply- Spongeo-
piline. ing heat to an unbroken surface, because of its convenience. By this means, one may go about having heat applied without inconvenience; it is unlike a poultice in this respect. *Spongeo-piline* is about a

quarter of an inch in thickness, and has an impermeable material on the one side, which preserves the liquid applied from evaporating. When it is to be applied, it should be dipped first in tepid water, and then wrung, and applied to the part affected if no medicated substance is to be used; but, if there is, put it on the spongy surface after being wrung. It may be kept on for hours, and excites an action of the skin similar to a poultice. In applying medicated liniments, it is very useful in keeping the agent in immediate juxtaposition to the part implicated. Sometimes the spongeo-piline is found uncomfortable from its thickness, and the spongy part may be kept away, or piline itself may be procured, which consists of the impermeable portion of the spongeo-piline. This is exceedingly useful, because a person may go out with this upon him and follow his usual business, supposing the ailment is slight, and requiring merely some warm medicated application, as, *e.g.*, in lumbago.

Piline.

Hints
regarding
enemata.

XI. *Enemata*.—By enema, or injection, is understood the operation of putting some material up into the rectum, for the purpose of effecting a speedy movement of the bowels, or administering nourishment

thereby, or allaying pain, or checking diarrhœa, or acting as styptics.

The nature of the material used varies according to the effect we wish to produce. In giving an injection, for whatever required, as a rule the same care and precautions ought to be exercised; yet it is generally advised to give a laxative enema quickly. Injections should be given *slowly*, if possible imperceptibly, and, when used as a laxative, it will be enough to use medicine suitable for that purpose, and plenty of liquid, without any rapidity whatsoever. No good whatever can be obtained from the mere rapidity with which laxative injections are ordered and given, but, on the contrary, it may do harm by forcibly distending the bowel, and thus tearing the hardened mass violently from the mucous lining of the intestines. The same principle should guide one in giving a nourishing, or any other injection—the difference is in amount. In the former, the patient should be unconscious of its presence, or almost so; in the latter (*e.g.*, as a laxative), if there is a distressing feeling of distension, as if the bowels could not contain more, which is a sign that enough has been given; and this can be obtained without any force.

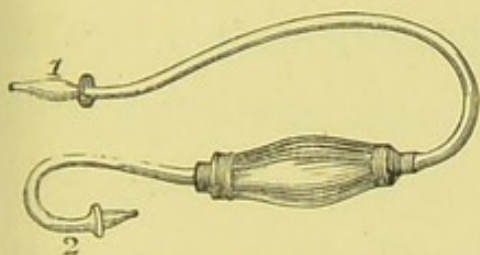
How to prepare the instrument.

The instrument should be in perfect order, and carefully prepared. The nozzle should be anointed either with oil, with some unctuous material, or dipped in the liquid used for the injection, which is generally enough. Before the nozzle is inserted into the bowel, the air which it contains should be entirely expelled, as air injected into the bowel invariably gives rise to pain, even at the close of the operation, where greater care requires to be taken, for then it is apt to rush into the syringe, and be inserted. But how is the air first expelled from the syringe? By alternately filling and emptying it in the liquid to be injected, until a full continuous stream comes from it, and the nozzle ought to be inserted while the syringe is full. By this means, it is quite impossible that air can get in. In introducing the nozzle into the orifice of the lower bowel, it should be done gently, and without pain to the patient. It should be directed upwards, and somewhat backwards, but little or no force employed, and the nozzle should be fully inserted, and left alone until the injection is given.

Fig. 23 represents one of the best enema syringes for general use. It acts on the bi-valve principle; the end¹ is the nozzle, and by the end² the syringe is

filled, which should be watched lest air enter by it. This is the most suitable syringe for practical pur-

Fig. 23.



poses, and is very easily worked, and can be used by the nurse alone if the patient is helpless.

After the injection has How to give the injection.

been slowly given, the nozzle should be allowed to remain in the bowel for a minute or two before it is withdrawn, so that the effect of the injection may be more certain of success. When the instrument is removed, it should be cleaned thoroughly, as soon as possible, and not allowed to dry or be put past without cleaning it, and thereby get out of order.

There can be no sufficient reason or excuse for want of success in giving an injection comfortably, conveniently, and without the least exposure of the patient. The instrument, in the hands of those who are more or less inexperienced, should be adapted to the nature of the injection to be given. The nozzle should never be removed until all is finished, and, therefore, no syringe but a proper injection one should be used. The injury done to the sick by carelessness and laziness in this matter, is worse than

the cure. Many instances of this nature might be cited, where discomfort followed the use of an unsuitable apparatus.

Best posture. It is important to place the patient in a suitable position. If it is convenient to lie on the left side, it will be found easiest to give the injection in this posture. But the right will do equally well, although it is not quite so easy to introduce the nozzle into the bowel, unless the operator is left-handed; but there is not much difficulty here either. Or the patient may lie on his back, with the leg next to the person who is to administer the enema raised, or rather bent at the knee. The right leg or knee bent is the easiest and best, and then the nurse stands at the patient's right side. Very often the patient introduces the nozzle himself.

It is important that all—rich and poor alike—should understand these simple matters, for any of them may be called on to administer relief to a suffering relative or fellow-creature at a time of trial, and it will not be considered menial then to be the means of doing the smallest thing towards that end.

Simple
injection.

But now with regard to the nature of the material to be used as an injection. When it is for the

purpose of emptying the bowel, and the nurse is ordered to give a "simple injection," or "simple water injection," for these are generally synonymous, she is supposed to understand that the injection is composed of a pint and a-half of lukewarm water, into which some soap is dissolved by rubbing until it has become somewhat frothy. This forms a "simple injection."

A castor-oil injection is composed exactly as Castor-oil injection. above, viz., a pint and a-half of lukewarm water and soap, with two or three tablespoonfuls of castor-oil added to the soap and water, and thoroughly mixed; and the best way this can be done is by way of putting the syringe into good working order, by alternately filling and emptying it in the same vessel, and thereby causing a great commotion in the fluid without much noise, the syringe being left filled when the nozzle is being inserted. This method seems far preferable to mixing the castor-oil in a separate vessel, and putting it into the bowel first, for which there can be no real necessity. If all is mixed well, and cautiously introduced, enough will be received and retained to act sufficiently.

When a nourishing enema is given, one fill of the

Nourishing
injection.

above syringe, or less than a teacupful, will be as much as can be profitably tried. This given very slowly and gently, will be retained, and may be repeated in two or more hours. The quantity should be small, and carefully given, and the syringe not hurriedly withdrawn. The quality of this enema depends on what the doctor wishes to give.

Perhaps the most suitable and convenient nourishing enema is composed of a teaspoonful of Liebig's extract of meat, dissolved in less than a teacupful of milk, to which is added some corn-flour or arrowroot, and repeated in two or three hours, or longer, just as the sick person depends more or less upon it. If anodynes or hypnotics are to be used, the doctor may probably advise them to be given in an injection of this kind. Another useful nourishing injection may be mentioned. About a wineglassful of home-made beef-tea, a dessertspoonful of port wine (or brandy, if there is much weakness), the yoke of an egg beaten up, and a little arrowroot, to give it consistency—this answers very well.

Necessity of
precision in
giving
enemata.

Nourishing enemata may be continued for weeks without doing any harm locally, and may be the means of nourishing the patient solely. Sometimes

this is the only way by which the patient can be supported, and then the bowels should be left undisturbed by purgative medicine for three, four, or five days at a time. About four injections, in the course of a day, will generally be enough to nourish the patient.

The doctor will give particular directions when any other injection is desired, and the nurse should always ask when she is not quite sure of what is needed for the injection. Medicine sometimes is given along with castor-oil, *e.g.*, turpentine, potash, and the like. The quantity of these must be accurately ascertained, according to the effect desired to be produced.

The injections used for stopping diarrhœa are usually made with arrowroot and the white of an egg, of such a consistence that it will go readily through the syringe, and not more in quantity than what has been mentioned for a nourishing enema. An astringent may be given along with it, and the doctor will direct the kind and the quantity he wishes to use. The nurse must not do any of these things on her own responsibility.

A very small quantity, with a useful astringent, or anodyne, will generally check diarrhœa, when medicine by the mouth fails. But the nature of the

diarrhœa must first be carefully noticed, for if it is beginning to be very copious, and expelled with great force, it is probably inadvisable to attempt giving an injection until it abates somewhat. The nurse should make known its character to the doctor.

An injection may be usefully had recourse to for many more purposes than those mentioned. The quantity injected will vary, according to circumstances, but that noted has been what is suitable for an adult under ordinary circumstances. In some cases, from their nature, much more may be required before it can have a laxative effect, while in others less will be necessary. The quantity may, as a general rule, be considered enough at one time, if, after it has been carefully given, it causes much uneasiness. But the nurse must be, on the whole, the judge as regards the quantity in any given case.

The nurse, or whoever is waiting on the sick person, should use common discretion in anything that she is to apply. If she annoys and troubles the sick person, it will do harm instead of good.

She must not be too persevering or assiduous in her attempts, else she will defeat her own object. Again, the nurse should, as a rule, have the thing to

be applied or used always ready before asking the sick person if she will have it.

If the nurse asks about a thing when it is not ready, one of two things may occur; he may agree to the request, but, when it is presented, he will decline—this is a frequent method—or he may refuse at once, and this will prevent the nurse getting it; in either case the result is the same. For example, take beef-tea—the nurse asks if he will take some; he answers yes; but, if it is not at his lips at once, and presented afterwards, he forgets that he said yes, and refuses; or if he at first says no, then this prevents her preparing it. Now, the better way is to prepare it first, and put it in a suitable vessel, so that he is able to take it; put the vessel to the mouth, and say, this is so and so, without asking him if he will take it, and, in all probability, he will. And now the prudence of the nurse will direct her not to try this too often, but very much after the same manner. This plan may often be seen successfully carried out in sick-rooms, and perhaps some member of the family may have the knack of doing this better than the others, and, henceforth, they are put down as the best nurses. This is not a correct inference, but, while one

Tact in administering food. Questioning patient unnecessary.

member has succeeded in this particular case, the others might, if they only tried in the proper way.

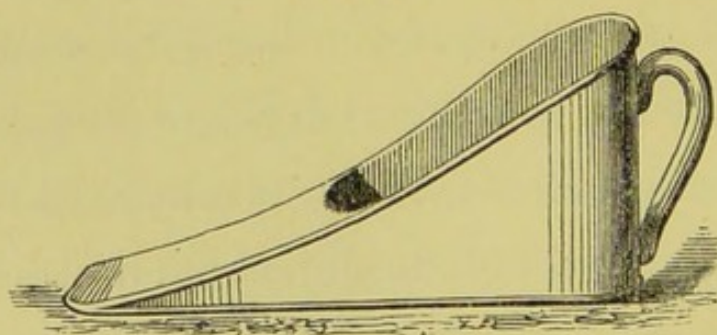
Fanning.

Again, there is sometimes great comfort derived from *fanning*, yet how few can do it, though all think they do it well, because it pleases themselves. It is very useful in the sick-room to soothe the patient, and perhaps make him sleep. It has been found of great benefit in a number of cases, but it does require some experience and tact, which need not be described or alluded to further here.

Bed-pan.

Generally speaking, the ordinary round bed-pan is the best, but, from long continuance, more especially if sores are produced, a change will be necessary. The slipper bed-pan (Fig. 24) is much better than the other slipper which is very often seen. Nurses, or

Fig 24.



those in charge of the sick, must again be cautioned to be particular in getting the most suitable

articles, and it is for this reason that this drawing is inserted here. The management of the bed-pan is very important, and requires some tact and experience.

CHAPTER V.

NURSING DURING PREGNANCY AND IN THE LYING-IN ROOM.

WHEN it is remembered that in England there are annually about 768,549 lying-in patients, and in Scotland about 115,514, besides that there is a marked uniformity about these patients as a class, it need not be wondered at that it should receive special attention in this place.

The nursing of lying-in patients of paramount importance.

From the commencement of pregnancy until labour, we have a condition which requires more care than is generally observed in ordinary health.

When labour takes place there is a condition still more striking; great prostration due to the pangs of travail, or what has otherwise been called *hard labour*. Whether this exhaustion is brought on by the shock to the nervous system in consequence of the labour, or to the tear and wear of the tissues

Causes of prostration, and peculiar state induced

during pregnancy, but especially during labour, or to the loss of blood, or not, it need not be discussed here. It seems rather not to be due to any *one* of these, but to all combined, and certain it is that our conceptions of pain, even the most severe and terrible, do not surpass those of a woman at the birth of a child.

In the lying-in room, we have a state induced by natural physiological causes, requiring as much, if not even more, care than the condition induced by disease itself; but, with this care, more certain of a successful recovery.

From the requirements in the lying-in room being in many respects somewhat similar to the sick-room, so far as the application of nursing is concerned, it follows that many of the principles already laid down must also be attended to here.

The period previous to labour is one of great care and anxiety to the mother, and therefore it must receive some attention from us, in the first place.

It is of great importance to be able to calculate when labour is to be expected, and this can be most accurately determined by of course knowing when pregnancy has begun; unless this is known, there is

no other guide so certain or probable. In the married state, then, pregnancy usually shows itself by cessation of the period, generally accompanied with sickness in the morning, and preternatural drowsiness or sleepiness. All other signs are comparatively of no use at present as leading symptoms.

Authors are not yet agreed as to what the exact duration of pregnancy is, and it is impossible to predict with accuracy the day that labour will take place, even when the signs above mentioned are ascertained. All that can be done is to calculate the *probable* date of confinement.

Considerations relative to prediction of the day of confinement.

The best and most general method of reckoning is to count from the last day of the last period, which is generally noted down or otherwise remembered, this being considered the most probable period for impregnation. Labour is supposed to come on in 278 or 280 days from this date. The majority of authors agree that the duration of pregnancy extends to 280 days, or 40 weeks, or 10 lunar months, or 9 calendar months and 1 week. The custom now prevalent is to add 9 calendar months and 1 week to the supposed date of impregnation; thus, for example, suppose that the last day of the last illness

fell upon the 1st of August, 9 calendar months would bring us to the 1st of May, and 1 week more would make out the 8th of May as the probable date of confinement on the 280th day, or completion of the 40th week, or the 10th lunar month. There are some (Dr. Harvey being the leader), who affirm that labour, in the instance just supposed, would not occur on the 8th of May, but on the 1st or beginning of the 10th calendar month—labour corresponding to the 10th natural illness.

But it must be remembered, that if the date is settled on the nature of the natural periods, we must take into account the variation in the duration of the interval, as well as the number of days it continues. The matter is clearly not definitely settled yet, and, from its nature, is manifestly a very intricate and difficult question. However, it has been clearly proved that the duration of pregnancy itself varies—sometimes longer than the time stated, and at other times shorter. Our reckoning, therefore, is only useful as an approximation, and necessary for practical purposes.

On page 208 a table will be seen, whereby at a glance the probable date of confinement will be found opposite the “date of impregnation,” which is

generally reckoned from the last day of the last period. The table is calculated throughout on the understanding that the duration of pregnancy is 280 days. The table includes all the months of the year, is simple, and prevents any likelihood of error occurring; for sometimes errors do take place, even although it is almost the simplest calculation that could be conceived.

Now, during these 280 days many deviations occur, owing to the existing condition, and though generally not requiring much medical treatment, or attention by a sick-nurse, yet the mother has herself to act as her own nurse, and, therefore, something should be said regarding these deviations before labour. The changes are so great sometimes that they amount to manifest disorders, which are either directly caused by, or indirectly (*i. e.*, sympathetically), arising from, the pregnant state; or, in other words, they are "symptoms and signs of pregnancy." Her attention, then, must be directed to keeping up the standard of health, so as to enable her to bear these disorders as well as possible.

Morning Sickness.—This is one of the first, and a good general collateral sign or symptom of pregnancy. a Morning sickness : its nature.

RECKONING TABLE.

JANUARY.		FEBRUARY.		MARCH.	
Probable date of im- pregnation.	Probable date of confinement.	Probable date of im- pregnation.	Probable date of confinement.	Probable date of im- pregnation.	Probable date of confinement.
January	October	February	Nov.	March	December
1	8	1	8	1	6
2	9	2	9	2	7
3	10	3	10	3	8
4	11	4	11	4	9
5	12	5	12	5	10
6	13	6	13	6	11
7	14	7	14	7	12
8	15	8	15	8	13
9	16	9	16	9	14
10	17	10	17	10	15
11	18	11	18	11	16
12	19	12	19	12	17
13	20	13	20	13	18
14	21	14	21	14	19
15	22	15	22	15	20
16	23	16	23	16	21
17	24	17	24	17	22
18	25	18	25	18	23
19	26	19	26	19	24
20	27	20	27	20	25
21	28	21	28	21	26
22	29	22	29	22	27
23	30	23	30	23	28
24	31	24	1 Dec.	24	29
25	1 Nov.	25	2	25	30
26	2	26	3	26	31
27	3	27	4	27	1 Jan.
28	4	28	5	28	2
29	5			29	3
30	6			30	4
31	7			31	5

RECKONING TABLE—(Continued).

APRIL.		MAY.		JUNE.	
Probable date of im- pregnation.	Probable date of confinement.	Probable date of im- pregnation.	Probable date of confinement.	Probable date of im- pregnation.	Probable date of confinement.
April	January.	May	February	June	March
1	6	1	5	1	8
2	7	2	6	2	9
3	8	3	7	3	10
4	9	4	8	4	11
5	10	5	9	5	12
6	11	6	10	6	13
7	12	7	11	7	14
8	13	8	12	8	15
9	14	9	13	9	16
10	15	10	14	10	17
11	16	11	15	11	18
12	17	12	16	12	19
13	18	13	17	13	20
14	19	14	18	14	21
15	20	15	19	15	22
16	21	16	20	16	23
17	22	17	21	17	24
18	23	18	22	18	25
19	24	19	23	19	26
20	25	20	24	20	27
21	26	21	25	21	28
22	27	22	26	22	29
23	28	23	27	23	30
24	29	24	28	24	31
25	30	25	29	25	1 April
26	31	26	2 Mar.	26	2
27	1 Feb.	27	3	27	3
28	2	28	4	28	4
29	3	29	5	29	5
30	4	30	6	30	6
		31	7		

RECKONING TABLE—(Continued).

JULY.		AUGUST.		SEPTEMBER.	
Probable date of im-pregnation.	Probable date of confinement.	Probable date of im-pregnation.	Probable date of confinement.	Probable date of im-pregnation.	Probable date of confinement.
July	April	August	May	Sept.	June.
1	7	1	8	1	8
2	8	2	9	2	9
3	9	3	10	3	10
4	10	4	11	4	11
5	11	5	12	5	12
6	12	6	13	6	13
7	13	7	14	7	14
8	14	8	15	8	15
9	15	9	16	9	16
10	16	10	17	10	17
11	17	11	18	11	18
12	18	12	19	12	19
13	19	13	20	13	20
14	20	14	21	14	21
15	21	15	22	15	22
16	22	16	23	16	23
17	23	17	24	17	24
18	24	18	25	18	25
19	25	19	26	19	26
20	26	20	27	20	27
21	27	21	28	21	28
22	28	22	29	22	29
23	29	23	30	23	30
24	30	24	31	24	1 July
25	1 May	25	1 June	25	2
26	2	26	2	26	3
27	3	27	3	27	4
28	4	28	4	28	5
29	5	29	5	29	6
30	6	30	6	30	7
31	7	31	7		

RECKONING TABLE—(Continued).

OCTOBER.		NOVEMBER.		DECEMBER.	
Probable date of im-pregnation.	Probable date of confinement.	Probable date of im-pregnation.	Probable date of confinement.	Probable date of im-pregnation.	Probable date of confinement.
October	July	Nov.	August	Dec.	Sept.
1	8	1	8	1	7
2	9	2	9	2	8
3	10	3	10	3	9
4	11	4	11	4	10
5	12	5	12	5	11
6	13	6	13	6	12
7	14	7	14	7	13
8	15	8	15	8	14
9	16	9	16	9	15
10	17	10	17	10	16
11	18	11	18	11	17
12	19	12	19	12	18
13	20	13	20	13	19
14	21	14	21	14	20
15	22	15	22	15	21
16	23	16	23	16	22
17	24	17	24	17	23
18	25	18	25	18	24
19	26	19	26	19	25
20	27	20	27	20	26
21	28	21	28	21	27
22	29	22	29	22	28
23	30	23	30	23	29
24	31	24	31	24	30
25	1 Aug.	25	1 Sept.	25	1 Oct.
26	2	26	2	26	2
27	3	27	3	27	3
28	4	28	4	28	4
29	5	29	5	29	5
30	6	30	6	30	6
31	7			31	7

It just occurs about the time that the period should have appeared, or rather shortly thereafter, and at once arouses suspicion of what has taken place. The cessation of the usual illness attracts now more attention, and is carefully noted. The sickness is quite characteristic, and, as its name indicates, occurs in the morning just on getting up out of bed; vomiting takes place easily, and the stomach is quieted for the remainder of the day; at other times sickness continues all day; so that it varies, but is typical when it occurs in the morning.

The sickness continues during the first three months, and then generally passes off, but sometimes continues much longer. Sometimes, again, it is absent altogether. The matter vomited consists of the food last taken usually, at other times the mucus of the stomach is thrown up, and sometimes there is heart-burn and other stomachic derangements.

Its cause is obscure; it is supposed to arise from some sort of sympathetic connection between the stomach and the womb, but it is, to a slight extent, under the control of diet and regulation of the bowels and medical treatment.

Simple light food is the best for checking it, with

some mild domestic laxative, as a rhubarb pill ; or a teaspoonful of carbonate of magnesia, twice daily in milk, answers very well. The bowels should certainly be acted on by the medicine daily, before it can be useful. But if these means fail, and if the patient is becoming weak and not nourished by the food received, and if, after all common measures have been used, it is still intractable, then medical advice is necessary, and should be had at once. It is certain that deaths have been caused by vomiting of this nature. When it is obstinate, therefore, absolute rest, in the recumbent position, and medical treatment, are demanded.

Sleepiness, Drowsiness, and General Languor.—This train of symptoms is annoying to the patient, more especially because she cannot conceal it—not even in the presence of strangers—though she always tries to do so. It occurs in the first months, like sickness, and requires no medical treatment, as a general rule. When it occurs to a disagreeable extent, it is right to use every means to lessen it, and for this purpose early hours and regular habits are of primary importance. She should not, for the time being, be disturbed by the restraints of modern society ; she should

have recourse to the use of the tepid bath at night, and exercise in the open air during the day. It is unnecessary to worry and fatigue herself by fighting against it, and the best advice that can be given to the person so troubled, is to try and find out for *herself* how she can retire early to rest, so as to be satisfied.

Diarrhœa
and con-
stipation.

Diarrhœa and Constipation.—These chiefly occur in the middle and latter months. Perhaps nothing demands more attention than the management of the bowels. The enlarged womb, being in juxtaposition to the bowels, affects them by its pressure: at all events, there is a marked disposition during pregnancy to constipation. Frequently diarrhœa alternates with constipation. A simple and moderately laxative diet may be most beneficial, for what is required is to obtain a regulated action, but not too much; and medicine will be necessary for this, unless the food proves sufficient. The diet may be considered laxative when it consists of such articles as oat-meal porridge, brown bread, vegetables, and the like; or, if these do not agree, fluid magnesia is a convenient laxative, and is generally quite efficacious. If there is merely a *tendency* to diarrhœa, warm milk, or milk

and lime water, will probably stop it at once. Exercise and laxative medicine ought to be taken cautiously, and the effects attentively watched; for, at those times which would correspond to a period, there is a natural proneness to disturbance, both of the generative organs and the system generally.

Dysuria.—The frequent and painful desire to pass Dysuria. water is observed in the early months, but more especially in the latter, and immediately before confinement. It is chiefly troublesome in the last two months, and is usually increased by walking. Rest in bed for two days, when it is very troublesome, with the aid afterwards, if required, of a supporting bandage, will relieve it. This bandage will support the abdominal tumour, and remove the pressure, in some measure, from the bladder. Potash or soda water drinks will tend to relieve the burning acrid heat which sometimes accompanies this state.

Oedematous Swelling.—The feet and legs often, in Swelling. the latter part of pregnancy, get somewhat swollen, and attention should be paid to it. It arises from pressure in the pelvis on the veins, obstructing the free return of the blood; it is more marked in the

left leg, in consequence of the venous formation on this side being different from that of the other. When swelling occurs in the hands, or under the eyes, medical advice should be obtained. The swelling of the feet generally subsides by lying in bed, or in the recumbent position on the sofa for a few days ; not allowing the legs or feet to hang, but keeping them raised, and thus assisting the circulation of the blood. All this may be further aided by administering diluent drinks, by gentle friction, or bathing with warm water.

Varicose
veins.
How to
assist
bleeding.

The existence of enlarged (varicose) veins is a source of uneasiness, sometimes of danger if they break and bleed, which often cannot be controlled. They sometimes also exist at other periods of life. It will be good to prevent their formation as soon as any tendency is observed. Regulation of the bowels, all means calculated to quicken the torpid circulation, and the use, in some cases, of an elastic stocking worn regularly, form the chief means of treatment. Should any bleeding occur by accident, or otherwise, it is to be arrested by pressing the wound *firmly*.

Pain around the sides of the abdomen is best

relieved by rest in bed, warm poultices, and the use of a bandage; but it may occur from congestion, and sometimes it is very persistent, and requires medical treatment.

Importance
of rest.

If good physical health, happiness, and contentment are secured, we have the surest and best means for retaining mental quietude; and so the various trifles, such as fears about the movements of the child, and the thought that, because the movements and other sensations are different now from what they were on previous occasions, that something is wrong, are altogether needless. These emotions and sensations sometimes are troublesome, and can be allayed only by assurance to this effect from the medical attendant. When jaundice, palpitation, asthma, paralysis, severe neuralgia, convulsions, or piles occur, no treatment by the person herself should be once attempted, but medical advice secured immediately.

And now, with regard to exercise, dress, habits, and diet.

Exercise.—It must be borne in mind that exercise admits of considerable variation, so far as particular patients are concerned, for what would be exercise to one person would not be any at all to another, or

Exercise.
What is it?

burdensome to a third. Therefore, whatever wearies or fatigues the patient should not be done as an exercise. Exercise in the open air should be taken during the whole time, unless contra-indicated by other causes, such as those mentioned above. If walking cannot be borne—and it sometimes cannot, in the latter months especially—then riding can be taken with more freedom. Riding on horseback is quite out of the question as a daily exercise. The previous household duties should be continued as long as possible, care alone being taken that the person is not worried with domestic matters. What is specially wanted is to keep the body in the highest state of efficiency and mental and bodily vigour. The patient must notice that two lives are dependent on her conduct at present. In whatever way we look at the subject, all kinds of social dissipation, indolence, and the like, are injurious, in proportion to the degree to which they are cultivated. Gentle out-door exercise is required, but this is literally not necessary every day, so that the person's own choice must dictate to her what kind of exercise she is to have—whether she busies herself inside, or requires a walk, according as she feels better and invigorated by the one or the other.

Dress.—The dress, as regards warmth, must be The clothing. regulated according to the season of the year, care being particularly observed against cold, for nothing is more annoying than a cough at such a time. The dress should not press unduly, or, indeed, at all, on the breasts or abdomen; both of these gradually increase in size, and require that the dress be loose and free. Any one duly careful of her position must abandon the use of tight stays or corsets. Free respiration and pure air are essential, as it is most important that the blood should be properly ærated, for the sake of the child as well as the mother. If the stays presses on the breasts, it flattens the nipples, and makes the skin tender, which, of course, sometimes give rise to agonizing pain while nursing the child. Whatever be the nature of the corset, it should be quite loose, and capable of being easily expanded. Appearances must be subordinate to what is most conducive to real sound good health. Yet as much support as compatible with what has now been said may be safely allowed as regards the dress.

Habits.—Active, regular, and persistent habits are Simplicity and regularity highly beneficial. those most likely to sustain the body in a state of health, and therefore ought to form a guide under the

present circumstances. Late hours, or meals at night, are not good, and should be avoided. The use of the tepid bath is sometimes very beneficial at night, in soothing the nervous system and procuring rest. The tepid bath may be continued during the whole period of gestation, once a week, or oftener, and a useful adjunct may be obtained by the cold Sits bath in the morning, which is more relished in summer, and especially by those who have been accustomed to its use.

Accustomed
dietary all
that is
necessary.

Diet.—Experience has clearly proved that a simple and plain temperate diet is all that is required throughout the whole period of pregnancy, and during lactation also; but, moreover, it is the best. This equally applies to the rich and the poor. Popular opinion will have it that, because there are two beings to be supported by the diet of one, therefore the diet of the pregnant woman should be richer than it was before. Such is not nature's method, however, for she provides for the additional demand in another way. Extremes in both may be abundantly observed. Many of the disorders already referred to proceed from the attempt to keep up the body by an over-nutritious diet, while the baneful

effect in the poorer classes of society may be seen in the diseases of the children directly traced to poverty. What, therefore, requires to be done, is to take the ordinary diet to which the person has been accustomed, and watch its effect on the digestive system, correcting it as circumstances may require.

The appetite in pregnancy is peculiar, and we sometimes find that the person has a *craving* or *longing* after certain articles. These may be granted, if kept within reasonable bounds and common sense. In general, perhaps less food is required, but there is no rule in this respect; for, on the other hand, we find the appetite and digestion sharp and good.

As we now arrive at the close of the allotted period of 280 days, the attention of the mother must be more particularly directed to the state of the bowels, and within a day or two of her time she feels much freer, and altogether in a state more able to walk, but less fit to perform it. This is due to the subsidence of the abdominal tumour, whereby the respiration is performed more freely; but walking is rendered more difficult from the same cause.

Unless great care is taken about the end, "spurious pains" may follow. Whenever the pregnant woman

End of predicted period requiring especial care.

False pains how caused.

has pains, she should notice at once their nature ; and sometimes it is a matter of difficulty to distinguish those named from the true labour pains. But there are three things to be noticed in deciding this matter : (1) the interval between the pains are irregular and varying ; (2) the shifting nature, as regards the seat and character of the pains themselves ; and (3) that they have arisen unexpectedly, and perhaps there is also some knowledge of their cause and origin. True labour pains are regular, steadily but slowly increasing in frequency and strength ; there is bearing down and advances felt ; they are seated generally in the loins, and do not shift much about. This will generally aid in coming to a satisfactory conclusion. But, if false or spurious, how are they allayed ? When the cause is known, it must be removed, and complete rest enjoined for a time proportionate with their severity. Whether fatigue, cold, irritation of the bowels in any form, whatever it is, the cause must be removed. If the pains are of a doubtful nature, they must be watched carefully in all particulars before a definite decision is arrived at. This is very important, for inattention on the part of the person, nurse, or doctor may be injurious. If the means now men-

Rest necessary.

tioned are insufficient to allay them, the doctor will prescribe sedatives or other appropriate treatment.

We go on now to consider the duties of the nurse in the *management of the first stage of labour*.

As soon as the nurse is summoned, she should *instantly* obey the call, and make all possible haste to be in attendance. Generally, from the nature of the circumstances, the nurse is not called until labour is commencing, but usually she is engaged to be ready when required, and no time should be lost by the nurse. A good nurse will have some means of preparing herself quickly, as regards her dress and the other habiliments she requires to bring along with her. It may be here noticed, that nurses are at present fastidious about their dress, which should be simple, warm, cleanly, and readily put on. Though there should be no actual danger—which latter the nurse can know better, and may be the means of averting—it is quite evident that she should be on the spot as soon as possible after the commencement of labour, or at its beginning. For further particulars regarding nurses, see Chap. II.

When the nurse is called, she must be careful, however, to pack up everything that is necessary, and

Summoning
the nurse.
How to
prevent un-
necessary
delay.

Too much
hurry bad.

not be put out by the hurry, and so forget something important, for this will annoy and irritate the invalid.

Acting
better than
speaking.

When the nurse comes, if the lady has not had her before, she should remember that "first impressions are lasting," and that she must set about her work as one who knows it, and feeling for, and sympathizing with, the object of her care. She must not be frightened, nor peevish, nor forward, but cheerful and happy. She should smartly undress and prepare herself for work, and not sit "palavering" with her bonnet on, attempting to amuse the patient in this way. A simple good kindly act is better than multitudes of words to a suffering individual.

Her first duty now is to watch the patient, and observe what is going on, while she obtains all the information she can.

What she
must do—
observe and
relieve.

Let us suppose that presently a pain comes on: it will be well for the nurse to begin by offering any aid she can, as, *e.g.*, by pressing the back where the pain is, in order to afford as much relief as possible. This will tell the nurse a great deal, and when it is over, then she may enquire about the pains, when they began, their frequency, and about the state of the bowels.

In an ordinary case of labour, at the commencement of the first stage the pains are regular, seated in the loins, not irregular muscular contractions, not violently expulsive, and with an interval of about twelve or fifteen minutes, which interval gradually becomes shorter. As a rule, it is well to give an injection, even though the bowels had lately been moved, in order to make sure that nothing still remains in the rectum, and the nurse should now be preparing this, and watching for another pain. When this occurs, she will be able to confirm, by her own knowledge and observation, if the information already obtained was correct. Supposing the enema has operated, and all is done, the nurse generally knows how far labour is advanced by the pains, but if she has any doubt, it can be removed by an examination to ascertain :—

Only examine if absolutely necessary.

I. The stage of labour, from the size and degree of tension of the os uteri, and the formation of the bag of membranes.

II. The presentation of the child, whether natural or not.

III. The condition of the passages, if the os and vagina are relaxed, and the existence of the "shows."

IV. The actual condition of the rectum, or lower bowel.

Cheer and
support the
patient.

She should ascertain these points at one examination, which should be done during a pain, with the forefinger well anointed, but not completed until the pain is ended, because the relaxation, and actual condition then may enable her to judge better. And now, considering all is going on well, if the pains are not frequent, what is the nurse to do during the intervals? She must, of course, first attend to the patient. It will not help the patient if the nurse begins to sit and talk, nor should she be dumb, for all her cheering will be required and liked. She will have plenty to do in first looking over the infant's clothing, examining every piece separately, and placing them on a "screen" before the fire to "air" them properly, and all this may be done in twelve minutes—the interval between two pains—and what next? She in the next interval prepares the bed. How is the bed prepared?

Improve
present
mode of bed-
making.

The nurse ought to pay particular attention to this matter, which is capable of much improvement. To save the bedding, a macintosh should be ready for the purpose, and a draw-sheet in the form of a thick

folded blanket placed where the waters are likely to be caught and absorbed by it. The macintosh should be large, so as to cover more than half of the bed, and should be made fast, for if not it will be displaced by the more severe pains which come on afterwards. This precaution should also be taken with the draw-sheet. The clothes should be stitched together, especially towards the right side, where they have to be turned up so often. All this will only occupy a few of the intervals between the pains, and it need not be done hastily, as there is plenty of time; besides, hurry would disturb the patient unnecessarily.

Attention to her own duties is all she requires, for she was brought there for that express purpose; and it will both honour herself and her calling if she keep strictly to her own place and duties, without carrying tales or gossip in any form. But what, then, has she got to do, for the pains are not, perhaps, more than every eight or ten minutes, thus gradually becoming more frequent, which she must still observe? She has plenty to amuse the lady with in the infant's dress, which has already been cursorily examined, but she ought now to see that they are ready for use. She can attach tapes to the separate pieces where

necessary, or buttons and loops, or run strings through them—which are, on the whole, preferable to using pins ; or, perhaps, she will see that some safety-pins are at hand, especially for the surface dress, or wherever an ordinary pin may be likely to injure the babe.

Nurse accountable for state of patient during first stage.

The nurse has the charge of the patient from the time we supposed she had arrived until the doctor comes, therefore she is accountable for the condition of the patient, as well as the ventilation and other matters in the room. She should allow the lady to walk, stand, lie, or go about at pleasure, and there ought to be as few in the room as possible—a friend and the nurse are ample, and even the friend is necessary only under certain circumstances ; at all events, the temperature of the room ought not to be high, but kept cool (about 65° Fahrenheit) and well ventilated. The food at first may be the same as that to which she was accustomed to, but gradually confined to light food and drinks. Then the nurse should pay special attention to the state of the urine, by really ascertaining if there is the desire merely, without any being passed, which occasionally takes place. All stimulants, bodily and mental, are on no account to be permitted, or given to the patient.

The nurse must endeavour to avert any morbid symptom that may arise, such as severe pain in the back, chilliness or rigors, nausea or vomiting, irritability or despondency.

Avert
morbid
symptoms.

The pain in the back becomes more intense and marked as the labour goes on, and the nurse should be able to find out the exact spot, and press it sharply and firmly during a pain. The lady will be thankful for the support thus given to her; and, unless the nurse can do it, to some extent at least, it may operate against her, for it is a kind of test, and it will be thought she does not know other things of more consequence, perhaps.

The chilliness, or rigors, which come on now, are more disagreeable than any of the other complaints; but, generally, it is encouraging, for it is regarded as a favourable sign, as it occurs when relaxation of the os and passages takes place. So it is with vomiting, and all these should be attempted, at least, to be relieved by the nurse; and just about this time irritability begins, but the nurse requires to go on as before, cheering as she is able.

The pains are becoming still more frequent and severe, and the nurse should now prepare the dress of

the patient. This is a matter that also tests a nurse more or less, for she must be able to put up the hair nicely, and in a manner that does not require to be changed for a good many days. The dress she wears now should be light, loose, and warm—a dressing-gown, for it is easily taken off. In another interval, the nurse should lay out a pair of scissors, a piece of tape for a ligature, pins, the binder laid out airing before the fire, with plenty of napkins and towels; none of these ought to be left *until* required, but ready, waiting, and in order. Should the nurse have spare time, still she will find suitable employment in making two or more large flannel aprons, which will answer good service in washing the child, and will be found very convenient afterwards.

If the nurse attends to the patient, her time will be fully taken up with the things here noticed, and she and the lady will have had abundant topics of useful conversation with regard to baby-dresses, and such like, without at all interfering with matters of other people, or, perhaps, what is more common, to talk over the merits or demerits of this or the other practitioner whom she has met, and “condescend” to mention her favourites, or vainly relate some sad event in which

she was engaged, and attributes the success in overcoming it to herself. This requires to be pointed out, for even a good nurse, unless made aware of it, will fall into it unawares and naturally; but it can never produce good fruit.

There is still another precaution that the nurse Caution. should remember. She is asked if everything is right, and if it will be long before the labour is completed? Generally speaking, if the nurse can evade these questions with propriety, it is the better course, but, if not, she should cheer her by saying that it will depend on herself, and that everything is getting on well in the meantime.

The nurse is perfectly justified in giving a favourable answer, because she can do nothing, should anything be required, until the doctor comes; and it is best to cheer the lady by every legitimate means in her power, for the responsibility depends entirely on the doctor, so far as labour is concerned. So we find that Rachel's midwife said to her "Fear not," and yet Rachel died in child-bed.

But now we come to the sending for the doctor.

It sometimes is a matter of importance, for he Nurse's duty to send for the doctor. should be present at the end of the first stage, just

before the membranes have broken, and the liquor amnii escapes, for, should anything be wrong, it is more easily corrected before than after this. It is unnecessary that he should be there any sooner, provided all is going on well. However, if there was any doubt, it would be well that he should visit the lady, and leave if not required for some time. But, in order to know when to send for the doctor, so that he may be present at the end of the first stage, the nurse must judge by the length of the interval between the pains as well as the nature of the pains themselves, the condition of the patient, the distance to the doctor's house, and the probability of finding him in. The doctor should always know in plenty of time ; because his visit will comfort and encourage her rather than anything else, by knowing that she is attended to, and that all is right.

About the end of this stage the length of the interval is not more than five or six minutes, and the pains are more expulsive, and compel the patient to hold in the breath, which she could not do before, but simply cried out with the pain ; now the pains make her work, whereas before she could only bear them. If any doubt exists in the nurse's mind, she might

examine again and see if the os is larger than a five shilling piece, and if the bag is well formed and the head advanced. The nurse must not examine too often in this (the first) stage, but, if labour has progressed in the manner supposed, the sooner then that the doctor is present the better. The nature of the pains must not entirely be trusted to, for many can bear pain without showing it much, and it sometimes occurs, as it has happened heretofore—"Before she travailed she brought forth; before her pain came she was delivered of a man-child." These cases are disappointing, but we go on to consider next

The Duties of the Nurse during the Second Stage of Labour.—The nurse has no charge of the patient when the doctor is present, nor has she any responsibility, and she must perform everything heartily and cheerfully that he wishes and desires for the comfort and good of his patient. The entire charge and responsibility lies on him, and the nurse ought not to be guilty of the (now so common) practice of *suggesting* anything relative to the treatment.

Her first duty, then, is to acquaint the doctor, as far as is important, about how the labour has been going on; or, if there has been anything important

Duties of nurse during second stage.

Nurse should tell matters of importance.

noted, it should be told to him on his arrival, so that he may examine for himself.

Before the doctor comes into the lying-in-room, the nurse gives all the information she thinks necessary to him, and then puts the patient to bed. The patient should be placed on the left side, the dress carefully arranged, and the dressing gown taken off, so that when a pain comes he may have free and ready access to make a satisfactory examination at once. If all is well, the waters will soon come away; and, therefore, the night-dress should be kept up out of its reach, and no petticoat on, for it is unnecessary, troublesome, and extravagant, for usually it is torn in removing.

On chloroform.

The nurse should now take up her position at the side of the bed, opposite to the doctor, and, when the pain is severe, she should let the lady hold her hands, and allow her to pull, and for this reason, if thought more convenient, a long towel may be attached to the bed post. When the pain is severe, and the patient rolling about, and becoming very irritable, and one pain following the other very closely—almost continuously—and not much advance observed with each pain, the administration of chloroform is fraught with the happiest effect. In this case the nurse

should prepare a towel, and sew it so that it cannot become deranged by folding it hurriedly. Chloroform is only given under the immediate supervision of the doctor, but by the nurse; he directs her how to pour it on the towel, and how and when to give it. Complete insensibility is not necessary, but enough must be given to take away the pain. It should be given as soon as the pain begins, and continued till it ends—leaving it off in the interval when the patient lies perfectly quiet and conscious. At the end of the second stage, just before the child is born, it is usually better to push the chloroform a little further, because the pain is much more severe, and she feels it much more, and, therefore, requires a freer administration of the chloroform.

While chloroform is proved to be quite safe, yet it is a powerful agent, and requires much caution in its use. There is another precaution of practical importance—never begin to give chloroform unless you can continue it till the end of a natural labour, because, if you run short, the patient gets far more irritable than if it had not been used at all.

Circumstances alone can decide whether the patient should have chloroform or not. There are a great

Interference
by nurse
wrong.

many cases where it is not necessary, and, at present, some would prefer to bear the pain, even although it is very severe, while there are others, where the pain is not really so severe as to require it, and they experience little difficulty; but sometimes it is absolutely necessary for the patient's good and safety to administer it, and there can be no harm in giving it in such cases, for, when properly used, it is not dangerous either to the mother or child. The medical attendant can have no personal object to gain in desiring to give it—rather the reverse—but his sole object is the good of his patient, and relief from unnecessary pain. Ignorant nurses ask the doctor not to give chloroform; this is most objectionable, and should not be listened to for a moment.

Attend to]
comfort :
same as in
first stage.

If chloroform is not used, the doctor may permit the patient to get out of bed for a little, frequently, for sometimes this stage continues for hours. The nurse will make her comfortable, and keep her bed tidy and the room well ventilated. Toast water, or a cup of tea, will be liked by the patient. Then the nurse should always attend to the state of the bladder, just as in the first stage. If not suffering much, the patient will feel more freedom by the

doctor leaving the room occasionally. The nurse will also see that there is hot and cold water in readiness, and all things prepared for the reception of the "little stranger."

The patient will receive great comfort by putting a footstool at the foot of the bed ; but notice that it is put in properly, beneath the bed-clothes, not over them, so that she is allowed to have her feet as free as possible, and not hampered. The nurse should always, as the patient lies in bed, see that everything about the dress is right, and all guarded, and then take her stand as before, on the opposite side, fronting the patient.

If the doctor requires the legs to be separated by the nurse, she is not to try this by getting a hold of the knee roughly and on the outside of the bed-clothes, but the nurse should slip her hand underneath the clothes, and supports the knee as desired, and no pillow is to be inserted unless specially requested to do so. If chloroform is used, the nurse should have plenty on the towel, and apply it with the one hand, while the other may be used in raising the knee as indicated.

As soon as the child is born, the nurse removes the chloroform away out of the reach of the respiration

Nurse's duty
at birth.

of the patient altogether, and comes round to the other side of the bed, gives the ligature and scissors to the doctor, renders assistance in tying the cord, if necessary, and receives the child into a piece of dry warm flannel, already prepared for the purpose. There should be no haste, nor bustle, or hurry, about all this, but all should be done affectionately, quite calmly, and carefully. Here ends the onerous duties of the second stage of labour by which a new and independent life and being is brought into the world—a most important event.

Third stage. *The duties of the nurse, during the last stage of labour*, should not take longer than three quarters of an hour, or one hour at most, unless something arises which produces delay.

The babe being cursorily examined to see if all is right, the nurse folds the flannel above alluded to carefully around the child, and places it in a warm situation, *e.g.*, on the clothes at the foot of the bed, but so that no bright light will be cast into its face, and it is left there, where it ought to remain until the mother is put fully and completely to rights. The nurse stands beside the doctor (who conducts this stage, like the former, to the end), and ready to

do what he desires, thus, *e.g.*, if he wishes her to press the abdomen, in order to excite the womb to contract, she ought to go behind him, and to his left side, and put her left hand over the desired part, where she feels the womb like a hard lump, about the size of a breakfast cup, and presses it firmly backwards and downwards, to aid the expulsion of the placenta.

Whenever the placenta is expelled into the vagina, she feels the womb rapidly sinking down into the pelvis, and the nurse receives the placenta from the doctor in a small hand-basin she has ready for the purpose. While this is going on, care must be taken to keep the patient warm and unexposed, but the doctor will give all instructions on this point.

When this has been successfully performed, the nurse proceeds to the removal of the soiled linen. How to remove soiled linen. She begins by first tucking in the portions of the bed-clothes, if they have been slightly soiled, for they are to be left for the present on the patient, and it is important that the wet part should not come near her. The nurse, therefore, rolls this carefully up, and fastens it with a pin. She then proceeds to remove the draw-sheet from beneath the mother, and this must be done carefully by folding in the

corners, and pulling it outwards, folding it as she pulls, and thus preventing the discharges from falling upon the carpet, which no careful trained nurse should allow. This should be done quickly, but not harshly. The mother may be still lying on her side, or she will be more refreshed by changing to the back. A warm napkin is applied to the pudenda, and another warm blanket, but not so large as the former, is put below her, and the binder applied. It should be now seen to that the womb has been keeping firmly contracted, and nothing abnormal about the discharge. In all this, the mother should be told to make little, if any effort herself, but be quite passive in the hands of the doctor and nurse.

Binder.

A plain binder, usually made of a double fold of calico, sewed at the margins, and about eighteen inches wide, and two yards long, the inferior margin being convex, is far the best for general use. The chief use of the binder is to support the mother; she feels quite worn out, and the parts which were more immediately concerned sore pained and as if she were to fall asunder. The binder braces and helps to dispel this feeling. But, for this purpose, it must be put well down over the hips, and not up

about the waist, from the supposed effect it has on the form and gait afterwards.

In applying the binder, it should be rolled up to nearly half its length, and the rolled part taken in the right hand, and passed under the mother, and caught by the left hand at her other side, and unrolled and brought up to the front. It should be carefully adjusted, so that there are no creases or twists under her, and then a large compress placed over the womb, and the binder fastened over it firmly and neatly, beginning at the lower margin, and four fairly-sized strong but *sharp* pins will be quite sufficient for this purpose. It is the support given by steady compression over the haunches that relieves the mother. The napkin which was put to the pudenda is removed and examined, and another warmed and applied, by putting one end first behind, and bringing it forward to the front, and thus effectually receiving the discharges and retaining them. It will be well to have a good many binders prepared, as they are required to be changed frequently, washed, and dried.

Application
of binder.

Examine
every
napkin.

The patient need not be much exposed, in case of cold, moreover, it is really not necessary. The

Nurse
cannot guard
too much
against cold.

bed-clothes should next be tidied, and the full amount put on, for the patient often feels chilled, which is very apt to come on now, for she is more susceptible to cold than before. She ought to be watched in case of any disagreeable symptoms arising, such as shivering, nausea, excitement, faintness: all such ought at once to be checked. No other is required, during all this time, than the nurse and the doctor, but, if a relative enters, she should take up her time by amusing herself with keeping the child on her lap, and thus, perhaps, prevent it from crying, which annoys the mother, for the latter may fancy on this account that there is something wrong with it. If there is none else in the room, it will not harm the child to cry, for it will generally stop of its own accord, provided it is warm and nothing hurting it, but the nurse should first put the mother right. About the next half hour is taken up with

The Babe.

The New-born Infant.—The nurse now puts into use the flannel apron—which we will suppose she has found time enough to make during the first stage of labour, if actively, but not therefore nervously, busy. She puts the water (temperature about 93° Fahrenheit) into a suitable basin for washing the babe, and

places it and its accompaniments so near the fire as to feel its effects, and no more. Soap, a little oil, and a small piece of flannel, are necessary for washing the child. The basin should not be less than two feet long by one foot broad, and about ten inches deep, so as to contain enough water to completely cover the child when immersed in it. Much has been written about the material with which this vessel ought to be made ; but, indeed, it is a matter of comparatively little moment—one advises earthenware, another wood, and a third, some sort of metallic basin, with a piece of soft flannel placed in its bottom to prevent the child sliding.

The nurse, taking the babe on her lap, should unroll the flannel which surrounds it, and anoint the parts covered with the white sebaceous matter which generally adheres to children at birth ; if this is freely done before the child is put into the water, it is best. She then immerses the body of the babe in the water, and keeps the head above the water, letting it rest on her left hand.

First washing.
How done.

In this simple act it is easy to see if the nurse knows how to do her work. The nurse must not be frightened to handle the infant, and she first of all

begins with the face (the most tender part), when the water is quite clean, in order to preserve the eyes from being affected with foul water afterwards. This order should always be followed so long as the babe is tender, at least for the first few weeks.

Nurse to
have all
requisites
at hand.

The rest of the head should then be washed, afterwards the body; and here it must be borne in mind that all the creases and dimples and wrinkles must be dipped down into and washed, as here the white matter is usually more abundant, and requires more care to remove it from these parts. A little soap rubbed on a piece of flannel is better than a sponge, and a good nurse should avoid using "butter" for rubbing over the child, because very untidy, and not a whit *superior* to any other proper unctuous substance. When the whole body is thus carefully rubbed and washed—yet not too persistently, in case of chaffing the skin, from the desire to take off *all* the white matter at once—the babe is then taken up on the nurse's lap again, and dried with a soft, smooth, warm towel—daubing being preferable to rubbing the parts. When this is all done, any unctuous substance still adhering to the skin will rise in dry scales when the child is next undressed to be washed. The babe,

when being dried, is then examined more minutely to see that all is natural ; the skin, it will be observed, presents a nice glow of heat.

For the next few days, until the cord separates (probably five or six, but this varies), the child is not put *into* the bath as now indicated, but simply sponged and dried in the same way, for the dressing of the cord should not be meddled with. Afterwards, however, the bath is to be given in the same way, exactly as described. The next thing to be attended to is

Babe not immersed again till cord separates.

The Dressing of the Infant.—The nurse takes a piece of old soft clean linen rag, about six or seven inches square, and makes a hole in its centre to admit the cord through it, and she carefully folds the rag round the cord, and places it upon the abdomen, without stretching or straining it in any way. The flannel roller for the child should be six inches wide, and long enough to go one and a-half or two times round the child's body ; and this is put on first to support the weak part of the child—the naval—when it cries, and to keep the remains of the cord (with its dressing) in its place.

Dress. Why so complex.

All the clothing for the babe should be well aired,

warm, and dry. It is now admitted that the clothes should be light, soft, loose, and warm, and that, if all or any of these should be at fault, the child will suffer in proportion. Experience of the habits of children, and observation, can alone detect when these are at fault. It is really wonderful that a babe's clothes should be so complicated as they are in the advanced age we live in. The number of trifling things put on a child is most extraordinary, and surely might be advantageously lessened. Why should not all be sewed together in some form, whereby *lightness, softness, looseness, and warmth* would be secured? The only apparent disadvantage would be the undoing of it when it became soiled in any way with the saliva or milk or vomited matters, but surely this too could be overcome. But it would be beyond our present object to dwell further on this subject here.

It is wearisome to recall the separate pieces of the babe's dress, and they need not be enumerated. Cleanliness in all is an essential feature.

"Long-clothing" is useful in keeping the feet warm during the tender months of infant life, and, at the same time, permits movement, which is useful to the child. The principle in Italy, and most places on the

continent of Europe, is to roll up the feet, the child thus looking like a mummy, and it is kept so all day long, undoubtedly injurious to its well-being.

An infant has only one way of expressing disapproval, namely, by *crying*. And almost always those who have charge of it think there is only one way of relieving or getting over this, and it is by giving it a *drink*. They never think of the cause, though, by giving a drink, they obtain the best and surest means that can be got for stopping the crying, at all events, for a time. It should be remembered that a tight article of clothing, for example, will make the child cry, and, until it is undone, the breast cannot stop the crying altogether, though it may temporarily.

A drink the only supposed cure for crying.

Again, some nurses have the habit of putting on the roller on the babe too tightly, which disturbs the child all night, and makes it cry very much. There are many other causes for a child crying than hunger, and there are many ways of allaying it besides a drink. The whole of these duties can be easily done within the hour; and the hour is important as regards the patient, for, if she is keeping well, the reaction not being too great, and no hæmorrhage, she is likely to go on favourably.

Father's
first visit.

When all this is completed, the anxious husband is invited into the room to see the mother and the babe. As quietness is very important, he will remain only a few minutes in the lying-in room. The whole—and a great whole—may now be said to be completed. And now for

Nursing in
child bed.

The Nursing of the Mother in Child-bed.—The nurse should contemplate—for usually nurses have experienced—the condition of the mother. How great is the change, comparing the state now (an hour after delivery), to what it was a few hours ago! The mother lies in a state of prostration, due to the terrible pangs of labour, with a curious combination of hallowed feelings. She is perfectly still, and desires not to move or be disturbed; and, withal, her mind is fully occupied with what has passed; yet, happy because of her great and safe deliverance, and that a living child is born into the world, she is filled with gratitude and fear when looking back on the pain endured and its result.

The condition we have to deal with now is critical, and not without some danger, chiefly on account of the great susceptibility of the system to receive readily morbid influences quite external to itself, as

that of contagion—even more so here than in any other known condition of the system.

There is no time here for entering into the interesting subject of the degree to which this exhaustion reaches in civilized, as compared with uncivilized, countries; or, between the wife of the working-man or peasant, and the wife of one in the higher grades of society. To a certain extent all feel the reaction, but the working-man's wife, for example, will throw it off much sooner than the wife of one who has lived in a "more refined" manner—*i.e.*, than one in a higher class of society. Some regard this as among the evils that cultivation and refinement bring with them. Generally, however, this event is not dangerous, with prudence and ordinary care.

Effects of
labour com-
pared.

A few general remarks in this place may serve to point out how the mother thinks on the nurse and what she does. She feels little inclined to amuse herself by doing anything for some days in the way of reading, knitting, or otherwise employing herself; but, while this is the case, she has plenty to occupy her thoughts with thinking upon her suffering, upon the child, and upon the nurse's management of her. This keeps her busy enough, and sometimes it has the

Nurse to do
everything
well.

effect of making her super-sensitive. When the infant cries, she fancies something is wrong or hurting it, and that the nurse is inattentive, and not managing it properly. It becomes the nurse, then, to be fully prepared to meet every difficulty. The nurse must be careful to forget nothing, as, when anything irritates or excites the mother, *e.g.*, she looks back to clothes that the nurse has not aired at all, or not enough, and a whole train of thought set up, which may produce restlessness. Now, the nurse should know of, and attend to, all these things minutely, insignificant as they may appear; and sometimes the mother thinks quite rightly, for a little inattention may do the mother much mischief. Then the nurse must cultivate a taste to manage children. The difference among nurses in this respect is very great indeed. One will quiet a child at once, when another cannot at all. She must try and fall in with the ways that please both the mother and child.

After-pains.

Generally the first thing that disturbs a mother is the after-pains; but, in first confinements, they are rarely, if ever, present; while, in subsequent confinements, they are rarely, if ever, absent. The patient lies quietly, but is very soon unexpectedly disturbed

by these pains, and they are so unlooked for that the patient feels very much annoyed. At first they are pretty regular, and like labour-pains, and sometimes resembling them in severity. Soon, however, they begin to diminish in acuteness, and occur once every half hour, but the interval after the first day gets longer and longer, and usually the pains subside completely after two days. The nurse should not give any medicine to relieve or stop them, but inform the physician of their presence, if they are severe. All she has to do is to administer to the general wants of the sick mother. She should notice whether or not clots have passed, for these very often cause or aggravate the after-pains. The nurse, in adjusting the binder and compress—for she requires to do this often—should see if the womb continues to contract and lessen, and this she can test by pressing over the lower part of the abdomen, through which she will easily detect the round body—the fundus of the womb.

The nurse's attention must daily be directed to the character of the lochial discharge. Upon its management much depends. During the first few hours after labour, and, indeed, for the next three

Lochia :
Manage-
ment of.

days, it is red like blood, but *mixed with water* (watery blood—bloody serosity), so that it is perfectly easily distinguished from pure blood. The colour then becomes generally lighter, and gradually lessens until it ceases altogether, but it is not unusual that about the sixth day it becomes greenish, then it gets yellowish about the twelfth or fifteenth day, and smaller in quantity. It then becomes a white discharge for two days or so, and then gradually ceases. We thus observe that the lochia changes from sanguineous to serous or sero-purulent, and, finally, purulent. Its absolute duration varies much, as well as these relative changes.

The *quantity* varies exceedingly in different women. Usually the napkin must be changed every two or three hours after labour, and so on, until it begins to lessen, just in proportion to the amount excreted, and, finally, only two or three napkins will be required in the course of the whole day.

Nurse ought
to keep
lying-in-
room per-
fectly fresh.
How?

As soon as a clot is passed, the nurse should at once remove it, and make the patient comfortable. The nurse should never use a napkin without airing and heating it before the fire, and, as each napkin is removed, the nurse ought to examine it carefully.

If the nurse thus attends to the changing of the napkin, general cleanliness of the patient, and the washing of the parts, as shall be afterwards pointed out, with tepid water, or with tepid water and some wine, there should be no odour in the lying-in room different from any other room. The napkin ought always to be removed from the room, and washed, unless anything abnormal is observed, and then it ought to be preserved for the doctor's inspection. If anything occurs about the discharge different from this, it should be very specially attended to, as, *e.g.*, if it stops abruptly, or ceases and begins again, or if it is too profuse. Sudden cessation and abnormal profuseness are unnatural.

The binder ought to be changed every night and morning—indeed, oftener during the first two days—and adjusted two or three times during the day in addition, as occasion requires. The binder should be warmed before the fire immediately previous to its application, and it should be put on smartly, so as not to allow the mother to be chilled.

While the mother is in this prostrated condition, it will be enough to change the night-dress once in twenty-four hours, and generally this is done in the

morning, usually as soon as convenient after the babe is dressed. But, if the mother is strong, she may have the night-dress changed at night also, or oftener if there is perspiration : this, of course, must depend entirely on circumstances. The nurse ought to sponge the face and hands whenever that may be necessary, and she is not to allow the mother to do either herself during the first four days. While she is bathing the face she must be careful to place a warm dry towel over the top of the chest, to protect her from catching cold, to which she is very susceptible about the third or fourth day ; the want of this precaution is often seen, and causes serious mischief. It is much to be feared, in this particular, that nurses do more harm than is really suspected. Injury may be most certainly traced to the want of care in the morning ablution of the patient, which begins a train of symptoms not easily explained until inquired into. The hair ought, at the same time, to be tidied ; it requires nothing more just now—as it was done up during the first stage of labour, and won't be undone till the patient is able to sit up in bed at least.

After the face and hands are bathed, and the hair tidied, the nurse carefully bathes the pudenda, the

patient lying on her left side—and the nurse should be careful here to protect the bed-clothes. Plain tepid water is perhaps the best for this purpose. Sometimes a little port-wine forms a useful and soothing astringent if added to the water, but the nurse must be cautioned not to expose the patient long in case of cold, though, of course, the temperature of the room should be attended to previous to beginning. The night-dress and binder is then put on as already indicated.

Immediately after delivery, we have seen that the mother is exhausted, and lies quietly. Now, the nurse must keep up this quietness, and, as soon as the doctor leaves, the nurse must not permit many into the room, but strictly maintain quietness both in the room and in the house. Loud speaking, whispering, or noise disturbs the mother, and there should be no bustle or unnecessary running about. By this means the mother may fall off to sleep a short time after labour, or through the night, though very frequently the first night is passed without any. During the next day there must be no excitement, or visitors permitted into the lying-in room, except perhaps one very intimate friend or relative; and

Nurse ought to be able to prevent excitement.

it is sometimes questionable if this even is not imprudent.

If all things are going on well when the room is darkened during the next day, the mother may get a refreshing snatch of sleep. When the babe is "quiet and good," and when the nurse has a convenient moment to spare, it will often please the mother if she (*i.e.*, the nurse) reads for five or ten minutes to her, for the mother herself will not care to do this for a few days. The reading, if done nicely, will amuse the mother, and make the time pass a little more pleasantly, and direct her thoughts to some useful topic, and prevent her doting on her babe. This will prevent the nurse and the lady exchanging gossiping news, for it may be introduced and carried on by either.

Progress.

The mother ought never to be aroused from a sweet refreshing sleep, which rather should always be encouraged. If such care is exercised daily, the mother will begin to improve day by day, so as to feel a good deal stronger by the fourth day. When the mother wishes to change her position during the first few days, the nurse should always help her, for she is not able, and should not try it alone. The recumbent

posture is absolutely necessary during the first three or four days at least. About this time the mother will be able to rest on her elbow when the child takes the breast, or when she takes her food, and can have an additional pillow, if necessary, under the head and shoulders. It will take some time before the generative organs have returned to their natural size and position, and it is highly important that the mother should rest until this change is pretty fairly completed. She should remember that prevention is better than cure, and therefore she ought to take all necessary precautions to preserve her health, strength, and future usefulness.

The mother ought not to leave her bed sooner than the eighth or tenth day, and the nurse should not encourage her to do so sooner, fancying that such might hasten her recovery. When she leaves her bed, it must be for an hour or so on one prepared close by, so that she is not to stand on her feet in the erect position, but raised from the one to the other. Usually an easy chair, so formed that it may answer for a bed or sofa, is brought alongside the bed for this purpose. She may rise an hour or two daily, and afterwards an hour or two twice daily, and so on. About the end

When to
leave lying-
in bed.

of two weeks she may go into an adjacent room, and at the end of the third week she may begin to resume her own household duties, and go out for a walk or a drive afterwards, when the weather is suitable.

Diet in child-bed.

The diet of the patient should consist of light farinaceous preparations and drinks—porridge, “bread-berry” (bread, milk, and sugar), toast and tea, weak soups—for the first two or three days after delivery. Weak animal teas may also be allowed, but a sparing diet will be the best until the flow of milk is fully established. Afterwards a richer diet may be beneficially allowed, such as fish, eggs, chops, fowls, and meat; but no stimulants, for the first eight or ten days, ought to be given by the nurse, unless ordered by the medical attendant.

In carrying out these and other measures, the nurse may be certain that if she does anything contrary to directions, or underhand, it will be found out, and ultimately be injurious to herself. About the fifth or sixth day, solid food may be given, but all these things depend on circumstances, and on the state of the mother as regards the secretion of milk.*

* Professor Tarnier says :—“Legroux, physician at the Hotel Dieu (Paris), introduced the innovation of showing that not

The bowels are usually somewhat constipated, from lying in bed and from the nature of the diet, and, all things put together, it is not surprising that this should be the case. If they do not move of their own accord about the end of the second day, some gentle laxative, as castor-oil, ought to be given on the morning of the third, which is to be repeated again when necessary. Now, the nurse is not to trouble and annoy the mother by asking her many questions, such as how much oil does she require? The mother may not know, but if the nurse asks if she is difficult

Nurse to watch the state of the excretions.

only was there no danger, but often a real advantage in giving nourishment freely to newly-delivered patients. Accordingly, he allows soups to the women in his wards on the first day, and solid food on the second day after delivery. I have followed his example for several years, and have had no reason to be other than pleased with it. Immediately after delivery, therefore, I allow soup, taken in small quantities, but freely. On the next day solid food is permitted; an egg, or mutton chop, for example, with bread and claret and water. After the secretion of milk has begun, the patients can resume their usual diet." That such a course of diet will not be injurious will be at once admitted, seeing that it has been so carefully administered, and the results proved satisfactory beyond doubt; but anti-phlogistic regimen, where there is a tendency to febrile action when the flow of milk is just beginning, is undoubtedly the best. The same principle is well recognised when there is any inflammatory tendency in surgical or medical practice.

to move, or so, it will tell her enough to put her on her guard to give what is necessary at once—(repeating a nauseating medicine is objectionable); or, if it is found that too little has been given, she ought then to administer an injection.

In passing water, the mother sometimes experiences a difficulty for a day or two, perhaps, and the nurse must use hot applications to assist her, but, if there is much pain caused, or none excreted, she should immediately inform the doctor. The plan nurses have of putting the mother on her hands and knees, in order to encourage it, is not good, and ought not to be tried without advice. This difficulty, when it does occur, generally takes place the first day after labour.

The Breasts. *The Management of the Breasts.*—This is one of the most important points the nurse has to deal with. The guarding of the breast against influences whereby the mother suffers pain, and the establishing a flow of milk sufficient for the wants of the infant, is a matter of considerable interest, both in conducting to the health and happiness of the mother and the welfare of the child. The most natural mode of nourishment for the child, is to receive its supply

from its natural source, the mother, and she should certainly nurse her infant, unless there is something to contra-indicate this. There is the new milk called colostrum, to a greater or less extent present even before delivery, but the breasts are quite flaccid generally for some time after this event, and the babe cannot get much until the close of the second day. The breasts begin to fill earlier in those who have suckled before.

The rule for putting the child to the breast is : When to put new-born child to breast.
 As soon as the breasts contain milk, the child should be allowed to extract it for its nourishment. There is sometimes a considerable variation in respect to the time the breasts begin to fill in different individuals—in some it begins a few hours after labour, in others it is scanty until the third day.* But the above

* In regard to this matter, Professor Behier examined 974 women with the following result :—

It occurred in 22 within the 1st day after delivery.

”	170	”	2nd.	”
”	347	”	3rd.	”
”	266	”	4th.	”
”	100	”	5th.	”
”	22	”	6th.	”
”	5	”	7th.	”
”	4	”	8th.	”
”	1	”	11th.	”

rule applies to all these alike. The child should sometimes be put to the breast, to excite the secretion of milk if sluggish, to form the nipple, and to prevent hardness. The old writers, probably on this account, took care to prescribe a mild bland diet until the third, or fourth, or fifth day was over, and the flow fully established, in case of setting up milk fever; but this is not now so much observed. It is easy to know when the breasts contain milk enough to feed the babe, for they become a little harder and firmer; then the child should immediately be put to them to empty them. The colostrum, or first new milk, will act on the infant as a laxative medicine, and, therefore, castor-oil may be dispensed with by the nurse, but, strange to say, almost every nurse will insist on giving oil whether the child needs it or not—which is given often unnecessarily. No doubt, it is in imitation of the colostrum that the practice of giving sugar and water has been instituted, and is very useful when the milk is scanty during the first week.

When the breasts begin again to fill, the child should be applied to them again, generally after a lapse of one and a-half or two hours. This should

be kept up until they are regularly emptied and filled and emptied again, and so on. If the flow of milk is too great for the child, the nurse's special duty is to watch, in case of over-fulness and hardness of the breast, as the child in that case cannot draw the milk satisfactorily, and, if it goes on very far, not at all.

Engorgement or Hardness of the Breast.—In this case the nurse must take care to keep the patient warm, and rub the breast with the hand, putting upon it a little oil to enable the hand to glide over the breast smoothly, and so prevent irritation of the skin. When the hardness begins to lessen, by means of the rubbing—which, by the way, should always be done with the palm of the hand, going round the base of the gland chiefly, or from the base to the nipple—the nurse should take away the milk with an extractor made for the purpose, empty the breast thoroughly, and do not trust this to the child at first. The quantity of milk taken will not be missed by the child or mother, and the breast will very soon contain sufficient for the child. Now, this rubbing is important, as is also the extracting, and they must be done determinedly and perseveringly, until the breast is quite flaccid, which it will be in the course of a day if gone

Preter-natural
fulness of
breast.

Persistence
and skill
necessary.

correctly about. If there has been a cold feeling or shivering about the time the hardness began, or in the course of the toil due to the rubbing and emptying the breast, it should excite the nurse to double activity and perseverance. The whole has been subdued, even when the tenderness, the irregular nodulated swellings, and blue appearance of the breast, showed the symptoms of approaching suppuration.

Suppuration
almost
always due
to carelessness.

So difficult is it to get the milk out of the breast sometimes, under *these circumstances*, that even blood has been extracted, and yet no suppuration occurred, which, no doubt, was due to the persistent rubbing and extracting. The whole of this is very trying to the mother for a day or so, but, if allowed to go on to suppuration, it will be much more so. In these very obstinate cases, a piece of linen soaked in oil and vinegar, and laid upon the breast when the patient rests for an hour or so, is very useful, or a piece of hot flannel simply; but the rubbing must again be begun, steadily and quietly, until the hardness is *completely* gone. Generally the breasts suppurate from want of care or ignorance on the part of the nurse, or the mother, or the doctor, or all of them together. No doubt it sometimes will happen, what-

ever care is taken ; and it should always be remembered that, from the second to the fourth or fifth day, the nurse should pay particular attention to it. Even if got over, the patient should be afterwards watched, for, on addition of any cold, she may be affected similarly again.

The Nipples.—The great majority of mothers can bear testimony to the importance which a consideration of this subject demands, for there are very few who have not suffered, to a greater or less degree, owing to the condition of the nipples, or the breasts generally, during a certain part of lactation.

Manage-
ment of
nipples.

The nipple is liable to be affected in various ways, and sometimes is occasionally abnormal. During the period of pregnancy, the mother's attention must, necessarily, be often directed to the condition of the nipples. It has sometimes been found that, instead of a well-formed nipple, there is simply a depression, without any nipple at all. This condition may be due to two causes : first, it may have been absent altogether in the virgin state ; or, second, the nipple being small naturally, and during the increased growth of the breast from pregnancy it has not developed correspondingly.

Deformities.

How to
restore the
nipple.

When this condition arises from the former cause, there is little or no hope of it being remedied ; but, if from the latter, the best results may be attained by taking the following precautions before child-birth:—

1. *To use a Nipple-Shield.*—The principle on which the shield acts is the main object to be attended to, and not so much the form of the shield. The object of the shield is to cause pressure on the parts around where the nipple should be, there being a hollow into which it may enter when being formed. When the shields are applied over the nipples, they are kept in apposition by the gussets of the corset, which is drawn tightly over them. This treatment should be continued for a good many days, according to the nature and progress of the case. As soon as, but not until, the nipple is more or less formed, we should have recourse to

2. *Suction.*—Suction ought never to be attempted, in the class of cases under consideration, until the former plan has been used, so that the nipple, at least, is more or less formed. When it is advanced to this extent, the shields may be dispensed with altogether, unless the nipples are liable to be irritated by the rubbing of the clothes, or flattened by pressure.

The best plan for completing the formation of the nipples is to use *gentle* suction, by means of a pump or otherwise.

Titillation of the nipples, in such cases, is of no use; indeed, it is positively injurious, on account of the pain produced and the sympathetic irritation which might ensue. The mother, however, must not rest satisfied with the formation of the nipples, but watch that they do not get flattened again, and, if necessary, must therefore keep up the suction until the child is able to do so. For this reason she ought from time to time to have recourse to the shield or suction.

There are, however, a great many women in whom the nipples, although not absent towards the end of pregnancy, are either so diminutive or badly shaped that the infant has a difficulty in fastening upon them. The best plan for curing this condition consists in direct and repeated suction. Shields in such cases do not seem advisable, unless used for some other reason. Titillation here may possibly be of service, provided the sensibility of the breast is not great.

These precautions, judiciously and fairly tried towards the close of pregnancy, render nursing more easy, with less discomfort both to mother and infant.

Sores on the
nipple.

Affections of the Nipples during Lactation.—Erosions, excoriations, ulcerations, chaps, fissures, and cracks, occasionally affect the nipple. These bear a strong resemblance to each other : the one differing from the other chiefly in extent. They are apt to occur during the first days of lactation, at which time the nipple is highly sensitive and predisposed, in some cases, just in consequence of local weakness during this new function. It may occur, however, at any period of lactation. These affections often render nursing by the mother very difficult, and, on account of the excruciating pain, deserve most careful attention.

Exciting
causes sore
nipples.

The causes which give rise to these conditions are various. Undoubtedly, the act of suction, thereby necessitating, by means of the acid saliva, a certain degree of superficial irritation and inflammation, along with exposure to the air immediately after suckling (the air and gutter thus influencing the tender skin), seem to be the principal causes. Little scales are seen rising up, and are formed from the imperfectly-removed epidermis, shortly after the suckling of the babe, just as the skin gets dry : so the chap is formed. In other cases it is caused, mechanically, by traction on some weakened part of the nipple.

When there is any one of these conditions present, every fresh act of suckling readily excites the pain; the healing process is disturbed; and the mother dreads the approach of the child. This may be seen when the mother earnestly desires to nurse, but recoils on account of the *agony*. The same may occasionally be observed when there is no apparent disease or affection of the nipple; yet the sensibility is so much increased that the mother must be watched during the first few moments when the child is put to the breast, as she may bite her finger, or the clothes, or whatever may be at hand, to prevent her from screaming out. This exaggerated state of matters is exceptional, and, when it does occur, only lasts for a few days at the commencement of lactation, and then entirely passes away.

It is a matter of great moment that every mother Prophylaxis. should use every effort to prevent these conditions, seeing that they have been caused, and will be kept up, by the suckling. To stop the abstraction of milk, when any of these states exist, might be prejudicial to the entire breast, or to the child.

Seeing that exposing the nipple to the cold air, when moist and covered over with the saliva of the

child, is the most frequent cause, necessarily the best prophylactic treatment is to avoid such as far as possible, by drying the breast gently *immediately* after nursing, placing upon it some material that may keep it warm and absorb any further moisture, and rapidly covering it over with the dress.

Lotions for
nipples

In many cases, lotions of various kinds may be useful in strengthening the nipple and acting as a preventive means of treatment, such as infusion of tea, wine and water, brandy and water, and other remedies of that class. As soon as there is any local tendency to erosion manifested, the best plan is to keep the child from that breast as long as possible (giving it the healthy one), but remembering to prevent engorgement.

Value of
topical
applications.

Provided it is taken in time, and the child kept from it for a day, in all probability it will be quite ready to be used sparingly during the next day: if the milk is gently extracted, a mild astringent lotion applied, and the dress kept from rubbing over the tender and irritated surface.

When the more severe affections of the nipple set in, the treatment is most unsatisfactory. Perhaps there is no disorder where so many remedies have

been proposed as in this, and, it is not too much to say, with less satisfactory results. This, doubtless, is owing mainly to the continuance of the cause, not to the want of efficacy of the remedies, if under different circumstances. The special medical treatment must be directed by the physician.

Artificial nipples in these circumstances are of ^{Artificial} great value, and it is well that the nurse should make herself familiar with their use. They are chiefly intended to prevent the child from irritating the nipple directly, but the nurse must see that the child is able to draw the milk out of the breast through them, and that it gets sufficient nourishment. If the nurse can get the child to use these nipples, they should certainly be continued for a few days, until the malady is entirely subdued. If there is repugnance to the artificial nipple, the nurse should fill it partially with warm milk before putting it on the breast to give the child, who, as he gets it readily, will continue to suck, and the vacuum thus made will be slowly filled with the milk of the breast.

Occasionally it is observed that the natural nipple, ^{Incontinence of milk,} from weakness or some other local cause, cannot retain the milk, and it constantly dribbles away, wetting the

linen and injuring the breast. When this occurs, a trial to stop it may be made by putting the babe to it frequently but statedly. If this does not do, a cup-shaped shield (or a flat bottle) ought to be always used, and whatever is excreted is retained, and may be removed and emptied at convenient intervals.

More rarely the nipples are altogether imperforate : in such cases nursing is out of the question.

Is one breast
enough?

The question as to whether the child can be supported sufficiently by one breast is most interesting, and deserves some attention in passing. While this has been variously answered by writers on this subject, there can be no doubt that in many cases it is quite possible to give sufficient nourishment to the child from one breast alone. This has been proved over and over again—as, for example, in the case of twins, in the case of a person who has had one breast rendered useless from suppuration or some other cause, and occasionally when a mother takes another child and suckles it with her own. The question of the sufficiency of one breast depends on the amount and quality of the milk in that breast, in order that the wants of the child may be satisfied. Undoubtedly it will be better for the

mother and child if milk is supplied from both breasts.

The child generally offers little or no resistance to "fastening on" the breast, but a little perseverance will get over it when it does occur. Sometimes the mothers are as bad as the infants, for they do not know how to hold the babe in a convenient way for the purpose.

The nurse should at once ascertain how the child is to be brought up, and, if at the breast, then she ought to be careful not to use too much freedom with the large artificial nipple of the feeding bottle. This is worthy of notice, for it is thought that nurses prefer to bring up the infant "by the hand," as it is called. They ought to remember that it is less trouble for the child to catch the large nipple of the bottle than, perhaps, the ill-formed nipple of the mother's breast.

All these things, trifling though they appear to be, cause much anxiety to the mother about her child; and it is well for the nurse to avoid such as much as possible. When the mother is not to nurse her babe, the doctor will use some means to prevent the secretion of milk, and, of course, hardness and such like, from occurring.

Training of
child.

The nurse has a great influence in regard to the training of the child, so that it takes its food aright and with due regularity. This is the time to begin its education, which may be, and is, of great moment as regards the future sometimes. Much, for instance, depends on the training, whether his physical health and strength may be good or bad; and the body has an effect upon the mind, as well as the mind upon the body. The nurse must conform to the rule, to give the babe a drink whenever it requires it, and this can only be known by tact and experience of children's requirements. At the same time, the nurse should and can educate the child to take a drink at regular intervals. To begin with, the nurse gives the child a little warm water sweetened with sugar till the milk comes freely from the breast; but, if milk exists shortly after delivery, there is little need for this at all. Until the flow is established, the nurse should put the child to the mother's breast every two hours, for it gets little at first, but in a few days the interval may be increased to three, but should certainly not be longer, as a rule. Very much depends on the temperament of the child, and on how he thrives, for, after all, if the child thrives, whatever is found to have

that effect should be continued steadily. *It* is the right way, and no definite or previously fixed plan should be followed. When nature points out what is useful to the infant, that is what we should follow.

Infantile mortality is very great during the first month of infant life, for statistics show that two infants out of every twenty die during this period, and that it gradually decreases, so that great care is required ; and the greater is the probability that, if the child is spared during the first month and thriving, it will get an impetus forward and become strong.* But, if the child is not getting on well, we sometimes, indeed often, have to consider

A Substitute for the Mother's Milk.—Natural affection and duty alike point to the mother's milk

Mortality
among
infants.

Substitutes
for the
mother.
I. Wet-nurse

* In regard to the subject of infantile mortality, it may be useful to quote the short paper by Mr. Clarke in the *Food Journal*, a perusal of the three published volumes of which we commend to the reader. The paper is as follows :—

“ In the January number of the *Food Journal*, p. 464, it is stated that, ‘ Although Scotland has only about a-ninth of the cattle in the three kingdoms, it has carried off about nine-tenths of the prizes in the land, except in those breeds which are alien and unfitted to the Scottish soil and climate.’ From this it would appear that the Scotch have more skill in rearing and feeding cattle than the English have ; and, if so, they would—although man is not an animal[?]
—be likely to possess more

Scotch
breeders
more suc-
cessful than
English.

as being the best food for the infant; but, while experience shows that this is the good and wise law

skill in feeding infants than the English. Accordingly, we find it stated by Dr. Stark, in the *Fourteenth Detailed Annual Report of the Registrar-General of Scotland*, p. 53, that—

Infant mortality. Questionable use of statistics.

“The English are in the habit of stuffing their babies with spoon-meat almost from birth—(the poorer classes usually within one month after. This I have ascertained by inquiry.—B.C.); while the Scotch, excepting in cases where the mother is delicate, or the child is out nursing, wisely give nothing excepting the mother's milk till the child begins to cut its teeth. The English practice occasioned the death by convulsions of 23,198 children under one year of age during the year 1868, out of 786,858 births; in other words, caused one death from convulsions in every 34 of the children born during the year in England. In Scotland, during the same year, only 312 infants under one year of age fell victims to convulsions, out of 115,514 children born during the year; in other words, one death from convulsions in every 370 born during the year. What a saving of infantile life would occur were the English to adopt the rational Scottish system!’

Is spoon-diet the cause of convulsions?

“From this statement, it follows that considerably over 20,000 infants died from convulsions in England in 1868, from being fed with spoon-victuals before they begin to cut their teeth, and that this amount of mortality recurs annually from the same cause. But another fact not less important is connected with this statement, viz., that if this number of infants die annually from convulsions in England from this cause, it is more than probable that an equal, if not a greater, number die annually of diarrhoea from the same cause; and statistics quite agree with this suspicion, for the death-rate from this disease is more than double in England what it is in Scotland, having been in 1868 as high as 138 in 100,000 living in the former, and only 66 in

of nature, yet there are certain other occasions when circumstances demand that, in order to save the

the same number living in the latter (Op. Cit., p. 53). In the northern counties, including Durham, Northumberland, Cumberland, and Westmoreland, the death-rate from this disease among children under two years of age is reduced to nearly half of what it is in many of the English counties (*Supplement to the Twenty-fifth Annual Report*, pp. 12, 13); so it may be supposed that the inhabitants of the northern counties have learnt something of the good customs of their neighbours the Scotch.

“There can be no doubt that one reason why spoon-diet causes disease in children, previous to dentition, is, that the food given is at once swallowed by the toothless infant, so that it is very imperfectly mixed with the saliva; on the other hand, the act of sucking causes the saliva to flow, and, at the same time, to mix with the milk; and the more slowly the milk flows, the more perfectly the mixing is effected. Toothless persons often become affected with indigestion from this cause, notwithstanding that they chew their food as well as they can, and much better than a toothless infant does; and Mr. Mellin states, in Vol. II., p. 571, of this journal, that ‘fast-eating people invariably suffer from indigestion’ from this cause, and that ‘infants, before they have teeth, cannot digest, because they cannot insalivate, farinaceous matter,’ the especial reasons for which he clearly explained.

Want of saliva the supposed cause of disease in spoon-diet?

“Might not all spoon-diet be made sufficiently liquid to be sucked through a tube out of a bottle? The more difficult and slow the operation is to the infant, the more perfectly the food would be mixed with the saliva[?]. But it should not for a moment be supposed that this difference in the mode of giving spoon-victuals will make up for the difference between it and the mother’s milk. The old maxim, that ‘Children, like chickens,

child, and sometimes the mother also, a substitute for the milk of the latter must be obtained.

should be fed little and often,' may be a serious mistake, if spoon-diet is substituted for the mother's milk when the mother is away from home for a few hours only in each day. A mother of a large family has informed me that 'nothing is so good for a child as the mother's milk, and that hand-fed children are more liable to chest complaints' [!!] and, if so, to most of the diseases affecting children, excepting the contagious."

Be careful in regard to how statements are made.

Kind of food influences nutrition and digestion.

The avowed superiority of the Scotch over the English, as here set forth, is most becoming, exemplary, and flattering ; but Mr. Clarke's paper teems with statements concerning which it behoves us here to notice. In the first place, it is scarcely an acknowledged fact (unfortunately), that spoon-victuals (he does not say what they consist of), cause all the convulsions either in Scotland or England, so that in this instance the value of statistical data is comparatively very small. Undoubtedly, an over-nutritious and unsuitable diet is injurious to the natural function of digestion and nutrition (See p. 116), which is a complex process, comprehending not only digestion and assimilation, but circulation, respiration, secretion, and excretion. Now, any of these may be deranged, sometimes all (because acting in sympathy) ; at other times one may be more affected than another ; but all these are necessary for, and occupied in, the process of nutrition. No doubt, Mr. Clarke is right in supposing that proportionally more children are liable to be attacked with diarrhœa than with convulsions from unsuitable food—this is easy to understand. A variety of diseases may originate, which might prove serious, if not positively dangerous, to the infant, if the quality and quantity of the food are not based on the properties of the milk of the mother.

But, again, Mr. Clarke (quoting from Mr. Mellin's paper),

The discrimination of what to provide is a matter The choice important. of no small importance. When there is no serious

says that "fast-eating (and toothless) people, *invariably* suffer from indigestion (on account of the farinaceous food being imperfectly insalivated)." This statement most certainly demands qualification; as it stands it is erroneous, although there is some truth underlying it. The fact is, *fast-eating* predisposes to indigestion, because the food generally is not then sufficiently masticated, and there is more work thrown upon the stomach (and intestines), which, if strong, gets over the difficulty, and, unless over-taxed, the person never complains; while, on the other hand, if his digestive powers are weak, it tells very soon upon him—just according to the degree and kind of fast-eating. Moreover, the mixing of the saliva—so Saliva and its uses. strongly insisted on in the above paper as necessary to the proper digestion of infant diet—no doubt, is important, yet is subsidiary to the *kind* of food prepared for the infant. This will be more evident if the uses of the saliva will be kept in mind:—(1) To keep the mouth moist; (2) To assist in mastication (of course of little use in the diet of young infants); (3) To facilitate deglutition; (4) Supposed to act on certain constituents of the food (turning starchy matters into glucose or grape sugar)—there is great difference of opinion on this point, and uncertainty of how it acts; (5) Liebig supposed that it carried air, and therefore oxygen, into the stomach. Therefore, we practically find, that if the diet is of the right kind, it won't make much difference, if given by the spoon, or otherwise. While this is seen in special cases, there can be no doubt that the best food, and the best mode of administration, is to allow the child to suckle its mother until the fifth, sixth, or seventh month. Lastly, it would be well if all writers would exercise Caution necessary. more discrimination in regard to their sources of information;

physical disease or deformity (whether the cause be past or present), and if the mother and child at the time of birth are in a thriving condition, there can be no doubt that the mother is the best nurse for her own child, just because of the natural relationship of blood and constitution existing between them, and which has proved itself quite sufficient during the nine months of pregnancy. The babe can have no substitute to meet all its requirements so completely as the mother, and the necessities to make a mother meet this demand for her child are within her reach if she will only use them, but of course there are exceptions; still, one cannot pass this without noting that the custom of society, the fashion and manner of living, compel her to find a substitute in the breast of another, or to bring it up by the hand, and in such cases the transference is beneficial. It is strange to

thus *e.g.*, surely a mother of a large family *per se* is not an authoritative personage (however valuable what she says may be)—at least not the only or best person—for judging what is best for a child, or for asserting that hand-fed children are more liable to chest complaints; and Mr. Clarke, without any explanation or data from this mother, adds: “And, if so, to most of the diseases affecting children, except the contagious;” but why exclude the contagious?

think that the mother of the child (strong, healthy, and possessing the comforts of life) is forced to give her child to another no stronger or in any respect better adapted for the purpose, except that this substitute must conform to what is best adapted for the requirements of the child, without any regard to delicacies or luxuries of any sort. Some mothers will persist in nursing while really unfit; others will not nurse although able to do so, simply for the reasons just mentioned.

The circumstances which should prevent a mother from nursing her child are :

Reasons for mother not attempting to nurse.

I. When a mother is healthy and suitable in all respects, but incapacitated by sudden illness, accident, or death.

II. When a mother has any constitutional delicacy whereby either herself or her infant might suffer directly or indirectly by nursing.

With regard to the first group, it is rarer than the other, but perhaps easier to decide on the nature of the substitute. The universal rule in this case is to get a *duplicate* of the mother as nearly as possible.

Selection of wet-nurse.

In the second group, from the very nature of the case, it is our object to reverse this, and get one as

dissimilar from the mother as possible, in those points which render her unfit. The wet-nurse here must be entirely free from the constitutional delicacy, and endowed in all essential qualities in which the mother is known to be defective.

A wet-nurse ought to be healthy, strong, good-tempered, sober, truthful, smart, cleanly, with a good supply of milk, and a well formed breast and nipple, as near as possible to the age of the mother, and the age of the milk nearly similar. The two latter points admit of *considerable* variation, but the wet-nurse ought to be examined by a medical man before finally settled upon. The physician generally is—always ought to be—consulted about the choice of a wet-nurse, as it is one of the most delicate and compromising acts in practice. If conscientiously performed, he has to guarantee a full supply of good milk from an untainted constitution, which is a most difficult task; nay, sometimes the enquiries necessary for its elucidation cannot be obtained. But the examination is of the greatest importance. Generally those from agricultural districts are better than those in towns, and freer from some of their vices, though perhaps more primitive in their manners and habits. Now, the

wet-nurse should not be over-fed, but kept on a diet similar to what she has been accustomed to: good wholesome plain mixed diet is the best. It should not consist of much animal food, nor ought the latter to be altogether taken away. Her habits ought to be regular and active. If the child has a repugnance to taking her breast, it had better be left for some time without nursing it, and then take it to a dark place, or during the night, and put it to the breast. When the mother is unable to nurse her child, the wet-nurse is the best substitute, but occasionally it is not expedient, or is inconvenient, to have a wet-nurse, and then the child is brought up "by the hand," or "by the bottle;" and sometimes this answers quite well, but requires more care. If a child takes seriously ill, when being brought up "by the hand," a change to a wet-nurse usually stops the malady at once, if it is at all owing to its food, when no medical treatment will.

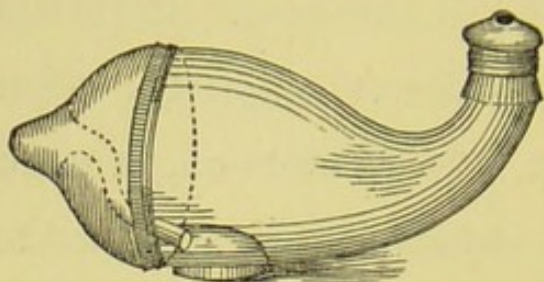
II. Artificial nursing.

All that need be considered further is the best feeding bottle, and the best mixture as a substitute for the milk of the mother. Fig. 25 gives a representation of the "mama" feeding bottle ready for the child's use, and Fig. 26 shows the separate parts of the same. This is unquestionably the best bottle. There

Feeding bottle.

is no tube except that marked 1, Fig. 26, and it is

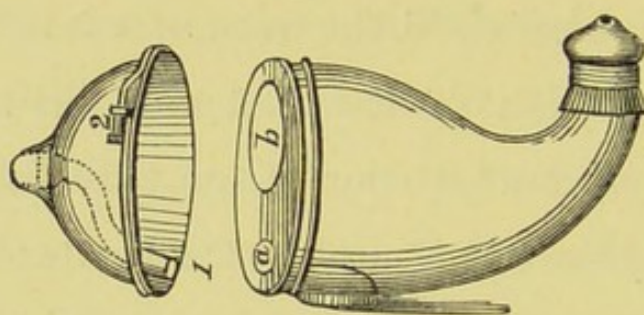
Fig. 25.



made of glass, and therefore surpasses all other kinds of tubes, such as that represented by Fig. 27, "Maw's Improved," which is the best of its

kind. But these long tubes through which the milk

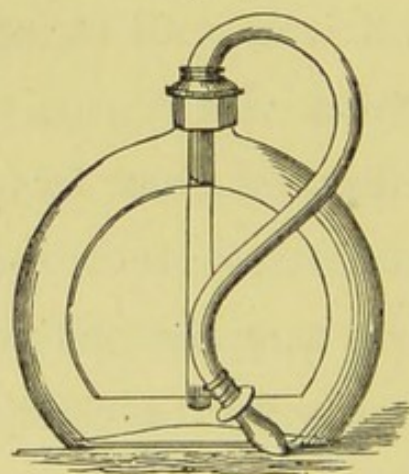
Fig. 26.



comes gets sour; and, though a brush is furnished, it is impossible to take this away, even with all the directions and

ingenious methods that are given to accomplish it.

Fig. 27.



Its only advantage is that it is convenient. When the child lies in its little cradle the nipple may be in its mouth, and it may sleep occasionally, as it does at the breast of the mother in bed. But, allowing the babe to take a sleep in the middle of its

feed (whether at the breast or the bottle), is a

questionable proceeding, and it seems a much more advisable plan to prepare the child for a drink, lift it when it requires one, give it, and lay it down to sleep without any bottle beside it. When it has its sound natural sleep, and awakens, it should get a drink again, and be done with it. From the habit of allowing the infant to sleep in the middle of its drink, it learns not to go to sleep afterwards except in the arms of its nurse, or when the bottle is given to it, which is decidedly objectionable. The "mama" feeding-bottle is of simple construction, and fully shown by Fig. 26. The part marked 1 is the tube, and in working order is put into the small aperture *a*, and the large aperture *b* is made large for the cleansing of the instrument. The part 2 is the screw of the wire which keeps the head on, and which makes it tight enough to prevent any milk from escaping. The head is intended to be like the natural breast, and this part can be had separately, and as many as may be required.

In purchasing these bottles, the nipples should be examined, for there are two kinds—the one has only one hole in it, the other has three. The one with one hole is used when milk only is given to the

Care necessary in choosing.

child, because the three holes would allow it to come too fast upon him and make him cough. The other is used when thicker and stronger food is given by the bottle, when there would be too little coming through by means of the one hole, and the child would cry and get irritated at it. It will be a useful plan to have two such bottles, and one always fresh and ready. Many children suffer from the want of cleanliness as regards the bottle, especially if the tubes are made of common caoutchouc, as, *e.g.*, that of Fig. 27. There is always a stale odour from them after being used for some time, no matter how well kept. Every bottle, when the drink is finished, should be emptied and put into a basin of cold water, and left there till required again. The caoutchouc tube, if not scrupulously attended to, may so affect the milk as to make the whole disagree with the child, and thus aid in bringing on a sickness which may terminate fatally. Infants are up and down so quickly that every care must be taken.

Preparing
food.

There is great variety as regards the method of preparing the food for the infant. What is considered best in this country, during the first month, is to make a mixture containing one-third of milk (always from

the same cow, if possible,) and two-thirds of water, at a temperature which would make the whole mixture up to, and not more than, about 98° Fahrenheit, the natural heat of the body, and to this is added a little sugar, just enough to impart sweetness to it. Thus, *e.g.*, two ounces of milk (fresh), three and a-half ounces of warm water, and about half a teaspoonful of sugar, will be enough for one drink, and, if any is left over, it ought not to be given to the child again, because milk soon ferments, but a new supply prepared when required next.

In summer it is useful to heat the milk as soon as it is got in, to prevent it changing by atmospheric influences, and then the milk is heated again, either after the water is added, or the warm water is added to the milk, so as to bring it up to the proper heat. The milk should not be boiled, because boiling deprives it of its aroma, and makes it more indigestible, in consequence of the expulsion of the air. Both these plans are quite good, and either will succeed. This mixture will answer quite well, and be sufficient for the child during the first month; but it is astonishing sometimes what the little infant can digest, and all that is required is to suit that,

and, at the same time, to be as near the standard diet as possible. There are nurses, however, that will brook no interference, but trust implicitly to "their own experience," until, of course, the child is ill, and then they are loud in their cry about this or that thing; whereas, if they would only observe, and dismiss preconceived prejudices, it might save much trouble, and lessen, to some extent, infantile mortality.

Function of
secretion in
infants.

A few hours, it may here be noted, after the child is born, the bowels move and discharge the meconium (which resembles liquid tar), and the nurse must attend to see that this is done, and that he makes water. The cloth should be frequently changed, and never put to the child till thoroughly heated, as the temperature of a child is very easily affected. The infant's bowels should move three or four times a-day: the motion ought to be about the consistency of treacle, and of a light yellow colour—*after* the meconium has passed away.

The nurse must attend to the wants of the child, and see how to understand its request by crying, although during the first months it scarcely does anything except sleep and drink. In about eight or ten

days it may be taken for a little into another room, and, if the weather is mild and warm, may be taken into the open air after it is a fortnight old.

Mixed Nursing.—Before leaving this subject, it will be well to refer to mixed nursing, as, under certain circumstances, such as the following, we must have recourse to it :—

III. Mixed nursing : when necessary.

1. Many mothers never have a full supply of milk for the child, either in regard to quantity or, more rarely, in regard to quality, and yet her constitution, her health, and the conformation of her breasts, are perfectly good.

2. Others are not deficient in any of these respects, but are far too delicate to sustain prolonged nursing sufficient for the child.

3. Some, again, while they cannot be classed under either of the above heads, find that the secretion of milk suddenly lessens, or even stops, at the end of a few months.

4. Some object to nurse because of the sacrifices and self-denial which its continuance entails, and who would like nothing better than to get some excuse for avoiding it, if not altogether, certainly in part, notwithstanding the remonstrance and entreaties of

husband, relation, or physician—even scorning the inward feeling of respect to humanity, or instinct in regard to her own babe.

5. On the other hand, there are those who possess the motherly instinct even to jealousy. This class *won't* hear of a hireling nurse; the very thought is painful to them; and, provided the child will take additional support to the two or three drinks it gets from the mother, it generally thrives quite well. In this case the mother's watchfulness, fondness, oversight, and care over the child makes up, to some extent, for the apparent loss. The children of this class particularly require to be watched by the physician.

6. When the mother has two or more children. Possibly, it is not necessary always to have recourse to mixed nursing when the mother has twins, but it generally proves too great a strain for her to suckle both for a lengthened period.

7. The occurrence of pregnancy during lactation. As a general rule, pregnancy is incompatible with proper nursing. There are some exceptions to this rule recorded in regard to man, and, of course, it is quite common among the lower animals. If the

child, however, does not suffer in consequence, there is no occasion to stop partial nursing, for a few months at least. Generally, the child is not suckled wholly by the mother in this state, as the quantity of milk manifestly lessens, and changes in quality; besides, nursing usually is far advanced.

8. The last head to which we may refer is—where *affections attack the mother*, more or less *suddenly and unexpectedly*, but in consequence of nursing. Of such a nature is great nervousness, pain, hysteria, mental affections and diseases, anger and emotional excitement, and a continuous train of symptoms of that kind. When menstruation occurs, it is not necessary to change the nursing, as a rule; but greater care must be taken at that time, and the child watched, in case the milk alters in character, and disagrees with the child. This, it should be borne in mind, sometimes does occur, but it is very rare we have to assist the nursing, unless, of course, lactation is far advanced.

Barring the poorer members of society, it may be asserted that, in this country at least, the majority of mothers bring up their infants by means of this method of *mixed nursing*, *i.e.*, suckling them at the

What is mixed nursing?

breast so many times a-day, and making up whatever is required additional by artificial feeding—the latter not merely being administered during the night. The best way of making the drink up is such as that mentioned already—with cow's (or goat's) milk and water—(See p. 283). Paps, panadas, and such like, may be given to the child when about four, five, or six month's old, according to circumstances. Undoubtedly, the *mixed* method is better than the *artificial*, but not so good as nursing entirely by the breast, either by the mother or when the wet-nurse is living in the house of the parents: the latter is always preferable.

INVALID COOKERY RECEIPTS.

“The tender morsels on the palate melt,
And all the force of cookery felt.”

“IN the hands of an experienced cook,” remarks Majendie, “alimentary substances are made to change their nature, their form, consistence, odour, savour, colour, chemical composition, etc.; everything is so modified that it is often impossible for the most exquisite sense of taste to recognise the substance which makes up the basis of certain dishes. The greatest utility of the kitchen consists in making the food agreeable to the senses, and rendering it easy of digestion.” The writer (and every impartial observer) can bear testimony to the truth of this in regard to the sick. Every now and again we find that, if the beef-tea does not contain this or that seasoning,

it is not relished—perhaps it will not be taken. Milton says—

“ That which is not good is not delicious
To a well-governed and wise appetite.”

The following receipts have been most kindly given by ladies in whose practical tact and experience the writer has confidence, inasmuch as they have been found—every one of them—exceedingly beneficial in cases of illness, either in their own families or other relations. The author does not put them forward as the only receipts useful in sickness, but rather as reliable auxiliaries to the knowledge which the nurse or person in charge of the sick may have. But *exactitude* is aimed at in them all; moreover, hints are given whereby greater variation may be attained. The author wishes these receipts to be read and studied in connection with Chapter III., on Sick-diet.

Precautions and General Directions in regard to Sick-Diet.—I. Only soups and animal teas ought to be heated for an invalid; they are improved by being made the day before, as the fat can be thoroughly removed. Food once used ought not to be heated up a second time for the sick: for the sake of economy,

therefore, present little at a time. 2. If seasoning of lemon (cinnamon, or the like) is wished, the best way is to pare the lemon very thin, and put a piece of the peel in a small jelly-can, with some of the milk to be used in making the pudding; then put the jelly-can in a sauce-pan with boiling water, cover it well, and allow it to stand at the side of the fire till the flavour is extracted, which will be the case in about one hour. 3. A lined sauce-pan should always be used in cooking food for the sick: this is still more essential when milk forms a part of the sick-diet. Every vessel should be *scrupulously* clean, and the food cooked and arranged as temptingly as possible. 4. Never make much of *one thing*, for the sick do not require or take much at a time; besides, it would lead to useless expense, and would prevent that variety which is essential in the case of sick-diet. But always have *something* ready at your command which can be given on the shortest notice. 5. Be certain in regard to the quality of everything you make for the sick.

PLAIN STOCK.

Ingredients.—Beef-bones, cold water, salt, and a few peppercorns, etc.

Mode.—Take the ribs of beef, or any bones without marrow,

and break them thoroughly and put them into a stew-pan, with as much water as will cover them entirely ; add the salt, etc. ; let it boil very slowly, but constantly, for eight hours, taking care to strain carefully at first. Strain it off, and lay it aside for use.

When stock alone is stated, remember that it is this soup that is meant. Of course it is not intended to give this to the invalid ; it only forms a basis.

STOCK FOR BROWN SOUPS.

Ingredients.—Four lbs. hough, one-fourth lb. lean ham or bacon, one oz. butter, two large onions, one turnip, one carrot, one-half head celery, one teaspoonful black pepper-corns, a few Jamaica pepper-corns, and salt to taste.

Mode.—Cut the meat in square pieces ; rub the stew-pan with the butter ; put the pieces of meat, ham, pepper, and salt into the stew-pan, with as much cold water as will cover them ; stir almost constantly till they boil ; add the vegetables ; let them simmer slowly till the meat is in rags ; strain the stock into small basins ; let stand till cold, when it forms a firm jelly.

When required, take off all fat from the top ; put into a sauce-pan as much of the stock as the invalid will take ; let it boil ; mix half a teaspoonful of corn-flour in a very little water ; stir one-fourth teaspoonful of Liebig's extract of meat into the soup ; pour in the corn-flour, stirring constantly till it boils. Serve with toast.

If the invalid objects to the flavour of any of the vegetables, they may be omitted.

NOTE.—Medical men are often asked to give their opinion in regard to Liebig's Extract of Meat, and it may be well to say something on the matter here. It is frequently interrogated—Do you think that *that* is nourishing ? others say you might as well drink the water in which you washed yesterday's dinner dishes as depend on *that* ; while a great many make faces and shrug their shoulders at the suggestion of any Concentrated Essence of

Meat, such as Liebig's. On the other hand, we occasionally see it used so persistently that it is questionable if it should not with propriety be discontinued. Under these circumstances, the writer unhesitatingly asserts it as his opinion that—Beef-tea properly made from fresh beef possesses a superiority over any Concentrated Essence yet invented. But then we see the greasy, the weak wishy-washy stuff, the inconvenience that the household may be put to in making the genuine, and often the inability—for “A Cook” says that “good soup is unknown in nine houses out of ten, and that most cooks know less of cooking than anything else”)—to make the reliable material, that we are glad to fall back upon some such preparation which is known, convenient, reliable, and very nourishing.

STOCK FOR WHITE SOUP.

Ingredients.—One-half fowl or the inferior joints of a whole one, small knuckle of veal, two slices of lean ham or bacon, one teaspoonful white pepper-corns, one teaspoonful salt, one-half carrot, one-half turnip, one onion, a little parsley, and one-half oz. butter.

Mode.—Rub the stew-pan with the butter; have the skin and fat removed from the fowl, and the veal cut in pieces; put the fowl, veal, ham, pepper, and salt in the stew-pan, with as much cold water as will cover them. When it boils, add the vegetables; let them simmer till the fowl and veal are boiled to rags; strain through a hair sieve into small basins; let stand till cold.

When wanted, remove *all* fat from the top of the stock; put as much of the stock into the sauce-pan as the invalid will take; mix a small teaspoonful of corn-flour in half-a-teaspoonful of cream or new milk; pour this into the stock, and stir constantly till it boils; have the yolk of one egg well beat; pour it gently into the soup; *do not let it boil* after the egg is added. Serve with toast. This soup should be as thick as cream.

BEEF-TEA.

Ingredients.—Half-pound beef entirely free from fat, twelve black and six white pepper-corns, a small piece of an onion, one-fourth teaspoonful Liebig's extract of meat, one-fourth teaspoonful corn-flour, and one saltspoonful of salt.

Mode.—Cut the meat into small square pieces, removing all skin and fat ; put it into a stew-pan, with as much cold water as will just cover the meat ; stir on a slow fire *constantly* till it boils, pressing the juice out of the meat ; let it simmer gently for an hour or so ; remove all fat from the top, and the peppers, salt, and onion, when it boils. When ready, mix the corn-flour in a little water, dissolve the Liebig in a little of the beef-tea, add it to corn-flour, and pour into the beef-tea, stirring till it boils. Strain through a hair sieve, and serve with toast.

There should not be more than one breakfast-cupful of beef-tea from this quantity of beef.

The Liebig, peppers, and onion may be omitted, if the invalid is not strong, or seasoning is not liked.

BEEF-TEA—*Another Way.*

Ingredients.—One-pound tea-beef, two tablespoonfuls cold water, one-fourth saltspoonful salt.

Mode.—Prepare the meat as in the preceding receipt ; put the meat in a jar, with the cold water and salt ; cover it closely ; put it in a stew-pan with boiling water ; let it simmer for three hours (be sure it is kept boiling). Strain, and serve with toast.

VERY STRONG BEEF-TEA.

Ingredients.—One-pound lean beef, half-a-pint cold water, and a little salt.

Mode.—Cut the beef into thin slices, and scrape it quite fine ; this must be done very quickly, otherwise the juice (which is the strength) will be lost ; put it immediately into a small stew-pan, and stir constantly over the fire for five or ten minutes, till it is

thoroughly heated ; pour the water over it, and cover the stew-pan with a very tightly-fitting lid ; let it simmer at the side of the fire for twenty minutes, or in an oven ; strain through the sieve, and add a little salt ; when cold, skim well. By allowing the sediment to remain in the bottom of the bowl, the soup can be obtained quite clear, but it is much more nourishing with the sediment mixed through it. If a thick soup is liked, a little corn-flour would conceal the muddy appearance of the beef-tea.

To add Strength to Soup.—Pour boiling brown soup upon isinglass, and stir till melted. A little pepper is an improvement, to conceal the taste of the isinglass.

MIXED SOUP—*Readily Made.*

Ingredients.—Two-thirds breakfast-cupful of fresh milk, two-thirds teaspoonful of Liebig's extract of meat, and one table-spoonful of flour.

Mode.—Bring the milk to the boil in a pan, and then dissolve the extract of meat in the milk ; thereafter, while continuing to stir, drop the flour into the mixture very gradually, in order to prevent the formation of small knots. Some curry powder, pepper, or other condiment, may be added to taste. The mixture should be of the consistence of white or pea soup.

This soup can be very readily prepared, is very nourishing—being made up of animal and farinaceous preparations—and may be taken once daily, when soup is indicated, for a couple of weeks or so at a time, or oftener, in fevers especially. Simple stock, or other animal soup, may be substituted for the milk, and then less, or none, of Liebig's extract will be required, if these latter do not agree.

TURTLE SOUP.

Turtle soup is rarely made in private families, or where there is sickness, but care ought to be taken to get the genuine article from some trustworthy source. It may be bought in pots with-

out wine or spices, and requires only water to reduce to a proper consistence for the sick. It is very nutritious, and of easy digestion, but should be given in small quantities and at moderate intervals. Wine or brandy may be added when there is great debility.

RABBIT SOUP.

Ingredients.—One large rabbit, one quart of stock, one egg, large teaspoonful corn-flour, one teacupful cream, milk, and water.

Mode.—Lay the rabbit out in pieces in a basin, and cover it with equal quantities of milk and water, with about a table-spoonful of salt; let it stand over night. Take the legs, shoulder, and inferior pieces and put them (after being well washed) in a stew-pan with the stock—keep the other pieces for stewing in any other agreeable form; let it simmer slowly till the meat is done; take out the rabbit, take all the meat from the bones, put the bones back into the stock, add a little boiling water, and simmer for an hour; strain and let it cool; pound the meat in a mortar, with the yoke of the egg boiled hard; rub it through a sieve, and gradually add it to the stock; simmer for ten minutes; mix the corn-flour with the cream, add to the soup, and just bring it to the boil, stirring all the time. Serve immediately.

CHICKEN CREAM.

Ingredients.—One chicken, one and a-half pints water, three or four spoonfuls cream, salt to taste.

Mode.—Mince and pound in a mortar the breast of a cold roast chicken; stew the remainder, with all the bones broken, in a pint-and-half of water till reduced to half-a-pint; rub the breast through a sieve into the half-pint gravy; then mix together till of the consistency of cream. When to be taken, add three or four spoonfuls of cream, and warm in a mug in a sauce-pan of boiling water.

Two or three spoonfuls may be taken at a time by an invalid who cannot take animal food.

BARLEY CREAM.

Ingredients.—One-fourth lb. veal, one-fourth lb. beef, two oz. pearl barley, one quart water, salt to taste.

Mode.—Carefully remove all fat from the meat ; then put into a sauce-pan with the water, barley, and salt ; boil gently by a slow fire till it can be passed through the finest sieve. It should be as thick as good cream.

For invalids a small quantity taken two or three times a day.

RICE CREAM.

Ingredients.—One-fourth lb. rice (roughly ground), one-fourth lb. brown sugar, one quart new milk ; season with lemon-peel and piece of cinnamon.

Mode.—Put the milk into a sauce-pan ; add the rice, sugar, lemon, and cinnamon ; let it boil ten minutes, not too fast, stirring it all the time ; take out the lemon and cinnamon ; pour into cups or jelly shapes ; serve cold ; custard may be poured round.

NOTE.—We extract the following from Mr. Lamprey's paper on "Rice," in the *Food Journal*, thinking the thoughtful reader may find the suggestions useful, not merely in regard to Rice, but also to other substances :—"Uses.—1. As an article of food, the grain is used in almost every possible form—whole, broken, half-broken, coarsely crushed, reduced to powder, or dissolved. Bread of various kinds, and also cakes of delicate flavour, are made of it, combined with the flour of other cereals, or used by itself. It is also prepared in the form of pilaus, pies, puddings, custards, soups, and gravies. 2. As a diet for invalids and infants, it may be pulverized in a mortar after a few minutes soaking in cold water ; or it may be ground in a mill, and prepared like sago, arrowroot, or tapioca ; or without pulverizing,

it may be made into a slight nutritious gruel by boiling and straining. 3. As a medicine, in relieving a disordered condition of the stomach and bowels, it is parched brown, then boiled and eaten ; or, it is parched of a darker brown, drawn as coffee or tea, and used as a beverage." The other uses are unimportant for our present purpose ; but, in the same paper, the following directions are given :—"1. *To Boil Rice*.—First pick it free from rough grains and foreign substances ; then wash it quickly in cold water, and hurry it to the pot before the grain is at all softened. As to the quantity of water to be used in boiling, there are two modes : one is to put in twice as much water as rice, and allow it all to be absorbed by the grain ; the other is to put in three or four times as much water, but to pour almost all of it off as soon as the grain changes from its pearly white colour and gives proof of having softened. (It is at this stage, the water being poured off, that it is sometimes prepared for invalids by pouring in milk and boiling with sugar, spices, or other flavours to suit the case). In both modes, when this stage of the boiling has been attained, the pot is to be withdrawn from the hot fire, and set where it will be kept at a low steaming heat, until the water is all gone. This last process is called 'soaking.' Properly conducted, the rice comes from the pot perfectly done, of a clear white, with each grain *firm* and *distinct*, and swelled to double its original size. Salt, of course, is to be added. Rice prepared in this way should *not* be *stirred* much in boiling, or it will become gluey ; a large open fork passed through it once or twice will be sufficient. 2. *Rice Pie*.—Chief ingredients : a pint of rice and a fat tender fowl. First boil the fowl in water enough to cook the rice, according to the rule first given. When the fowl is done, take out the larger bones, and cut it into small pieces. Spread a layer of the cooked rice on the bottom of a deep pan, and on it place a layer of the fowl, with butter and eggs mixed, and with black pepper and spices to suit. Alternate these layers until the pan is full, having a layer of rice at top,

on which pour a mixture of butter and eggs, and set the whole to 'browning' in an oven or on the fire ; then serve it at table in the vessel in which it is last cooked. The dish somewhat resembles in richness the celebrated pilau of the Turks." The reason for giving such prominence to this paper—which is excellent in itself—is mainly because of its suggestive nature in regard to substances allied to rice, such as sago, arrowroot, tapioca, flour, "pearlina," "grandilina," and the like. More to show the infinitude of ways in which a thoughtful and experienced cook can do away with sameness of diet—the resources are great where skill and want of ignorance abound.

THICK GRUEL FOR BREAKFAST OR SUPPER.

Ingredients.—One teacupful oatmeal, salt to taste ; half-teacupful milk, one breakfast-cupful boiling water.

Mode.—Put the oatmeal in a small basin ; mix sufficient cold water to moisten it well ; pour the boiling water over it, stirring constantly ; strain through a sieve into a small saucepan ; add the salt, and milk ; boil for three minutes, stirring constantly. Serve with cream, or good milk.

GRUEL.

Ingredients.—One tablespoonful oatmeal, salt and sugar to taste.

Mode.—Put the oatmeal and salt into a tumbler ; mix a little cold water, just sufficient to moisten the meal ; pour boiling water on the mixture, stirring constantly till the tumbler is full ; let it stand till cool enough for the patient to drink.

If the invalid can take milk, put only three-fourths of boiling water, and fill up the tumbler with milk ; season with sugar or not, according to taste.

PEASE PORRIDGE.

Ingredients.—Two dessertspoonfuls of peasemeal, salt to taste ; small piece of butter, and water.

Mode.—Put the peasemeal and salt into a basin ; mix carefully with cold water till the mixture is the consistency of *very thick* cream ; add one teacupful of boiling water ; put the mixture into a sauce-pan, with a small piece of butter ; boil for three minutes, stirring constantly ; serve with cream, or good milk.

The quantity of peasemeal must be regulated according to the taste of the invalid, whether preferred thick or thin.

OATMEAL PORRIDGE.

Ingredients.—Three tablespoonfuls of oatmeal, salt, one breakfast-cupful cold water.

Mode.—Put the oatmeal in a small basin ; pour the cold water over it, stirring well to prevent knots ; let it stand for several hours ; pour the meal and water into a sauce-pan, add the salt, stir constantly till it boils ; boil slowly for twenty minutes. Serve with cream.

Oatmeal should be steeped in cold water over night when for breakfast, and all day when for supper ; *boiled not less than twenty minutes.*

OATMEAL PORRIDGE.

Ingredients.—One tablespoonful oatmeal ; one breakfast cupful water ; one saltspoonful salt.

Mode.—Put the meal into a sauce-pan, with the salt ; add the cold water, *very* gradually, stirring constantly (to prevent knots), till it boils ; cover closely, and let it boil for twenty minutes, stirring occasionally.

CORN-FLOUR.

Ingredients.—One dessertspoonful corn-flour, one small breakfast-cupful of new milk, one teaspoonful sugar, season with salt.

Mode.—Mix the corn-flour gradually with one-fourth of the milk ; put the rest of the milk in a lined-pan ; when it boils,

pour the mixture of corn-flour, sugar and salt, into the milk, stirring constantly ; boil for a minute. Serve with new milk.

PANCAKE.

Ingredients.—One egg, one dessertspoonful flour, one teaspoonful sugar, small teacupful new milk ; season with nutmeg, salt, and a small piece of butter.

Mode.—Mix the flour carefully with the milk till it is very smooth ; then the sugar, salt, and seasonings ; beat it well, and mix with the other ingredients ; have the frying-pan scrupulously clean ; put the pan on the fire ; when hot, put into it a small piece of butter ; when the butter is melted, pour in the batter and fry it till it is a nice brown. Divide it, roll each half separately. Serve on a hot plate, with cream, and any preserve or sifted sugar.

APPLE PUDDING, WITHOUT EGGS.

Ingredients.—Bread crumbs, stewed apples, a small piece of butter.

Mode.—Butter a pudding dish ; put a layer of bread crumbs, about an inch deep, at the bottom of the dish, and as many as will adhere to the sides all round ; fill the dish with cold stewed apples (not very soft or juicy) ; put a layer of crumbs on the top, and bake, in a moderate oven, a nice brown. When baked, turn it out, and sift sugar on the top.

It should have a nice brown crust all round.

PUDDING WITHOUT EGGS.

Ingredients.—One tablespoonful of rice, sago, or tapioca ; one tablespoonful sugar, milk, and a little salt.

Mode.—Butter a small pudding dish ; add the rice (after being well washed and drained) and sugar ; fill the dish with milk, and set it at the side of a quiet fire at least three hours before it is required ; add more milk as it is soaked up : half-an-hour before being sent to table put the pudding in the oven to

brown on the top. The excellence of this pudding depends on its being slowly cooked.

CORN-FLOUR PUDDING.

Ingredients.—One tablespoonful corn-flour, one pint milk, four eggs, lemon or any other seasoning, sugar to taste, butter.

Mode.—Prepare the corn-flour as for an ordinary pudding ; beat the yolks of the eggs ; mix them with the corn-flour ; beat the whites to a stiff froth, and gradually mix them with the above ; butter the top of the pudding, and set it in the oven.

This pudding may also be made of rice, sago, etc.

BREAD PUDDING.

Ingredients.—One tablespoonful of bread crumbs, one teaspoonful sugar, a small piece of butter, a small piece of whole cinnamon, one egg, seasoning of salt.

Mode.—Put the milk, cinnamon, and butter, into a lined sauce-pan ; let it boil ; have the bread-crumbs in a small basin ; take out the cinnamon ; pour the milk over the bread ; mix in the sugar and salt ; beat the egg well ; add it to the other ingredients ; pour it into a small pudding-dish ; bake for half-an-hour ; or butter a small mould and steam for forty minutes. Serve with cream or a little sherry.

STEAMED PUDDING.

Ingredients.—Two albert biscuits, one large teaspoonful of sugar, seasoning of salt, one teacupful new milk ; season with lemon-peel or any other seasoning ; one egg.

Mode.—Grate the biscuits into a basin ; mix the sugar and suet ; pour the milk over them ; boil in a sauce-pan for two or three moments ; mix the egg, well beat ; butter a small mould ; pour in the ingredients, and steam for half-an-hour or forty minutes ; let the pudding stand for five minutes before turning out. Serve with cream or a little sherry.

BISCUIT-POWDER.

Ingredients.—Half teacupful biscuit-powder (ready made) and boiling water.

Mode.—Pour as much of the boiling water on the biscuit-powder (stirring it constantly) until it comes to a proper consistence ; let it stand till it cools somewhat. Serve with milk.

Similar mixtures may be made with bread, or rusks, and milk and sugar—condiments to taste.

ANOTHER PUDDING.

Ingredients.—Two albert biscuits, one egg, half-teacupful new milk or cream, one-and-a-half teaspoonfuls sugar, lemon or any other seasoning, small piece of butter.

Mode.—Put the alberts in a small basin ; pour boiling water over them ; let them stand for ten minutes with the basin covered with a plate ; beat the egg well with the sugar. When the biscuits are well soaked, pour off the water, pressing off with a spoon as much of the water as possible ; beat the biscuits till smooth ; mix the milk, egg, and seasoning ; butter a small mould ; pour in the pudding, and steam for half-an-hour ; or put the ingredients into a small pudding dish, and bake in a moderate oven for half-an-hour or forty minutes.

A CUSTARD.

Ingredients.—One egg, one teaspoonful sugar, season with lemon or cinnamon, a teacupful of new milk.

Mode.—Beat up the egg well with the sugar ; add the milk with the seasoning ; butter a jelly-can or small basin ; pour in the pudding ; tie a cloth over the top ; put it in a stew-pan with boiling water ; steam for half an hour, or bake in a slow oven. Be careful not to let this pudding boil.

ANOTHER CUSTARD.

Ingredients.—Four eggs, one pint milk, one small teaspoonful corn-flour, a few drops vanilla, sugar to taste.

Mode.—Mix the corn-flour and sugar with the milk ; beat the yolks of the eggs, and add them to the milk ; put the mixture in a sauce-pan, and boil, stirring all the time ; lay it aside to cool for a few minutes ; whip the whites to a stiff froth ; add the vanilla to the mixture, and gradually stir in the whites of the eggs ; strain through a sieve into a glass dish, and lay it aside till cool.

CAKE PUDDING.

Ingredients.—Two stale penny sponge cakes, one egg, one breakfast-cupful of milk, three teaspoonfuls pounded sugar, seasoning to taste.

Mode.—Split the sponge cakes, and cut into small pieces (as for bread and butter pudding) ; put them into a small pudding dish, and pour over a custard made thus :—beat the egg well with the sugar and the milk, gradually stirring till thoroughly mixed ; add the seasonings, and pour over the sponge-cakes. Bake in a slow oven for twenty minutes. Any sort of stale light cake may be used.

SAGO OR GROUND RICE SOUFFLÉ.

Ingredients.—One-and-a-half oz. sago, three eggs, a large spoonful of sugar, a small piece of butter, essence of vanilla, or any other seasoning.

Mode.—Boil the sago soft in milk ; beat the yolks of the eggs with the sugar ; add the sago and seasoning ; beat the whites in a cool place, very stiff, till they can be cut with a knife in squares ; have the pudding dish warm ; butter all round ; pour in the pudding, putting the whites of the eggs on the top. Bake in a moderate oven for twenty minutes ; send to table at once. This pudding should not be made till immediately before it is required.

ARROWROOT CAKE.

Ingredients.—Three-fourths lb. arrowroot, half-pound sifted sugar, half-pound fresh butter, five eggs.

Mode.—Take one egg and a little sugar beat well together, then a little arrowroot beat well ; continue in this way, only adding one egg at a time, till every thing is mixed ; fire in a moderate oven. It should be very light.

A SIMPLE OMELET.

Ingredients.—One egg, one dessertspoonful cream, one oz. butter, a very little salt.

Mode.—Beat the egg with the cream ; put the butter and salt in an omelet-pan ; heat it well ; add the egg and cream ; hold the pan over the fire for a few minutes, taking care not to let the omelet stick to the pan ; shake it slightly to keep it from burning ; fry it over the fire for five minutes. Never put flour in an omelet ; it makes it heavy.

MUCILAGE.

Ingredients.—Half teacupful rice, five breakfast-cupfuls cold water.

Mode.—Wash the rice well ; tie it very loosely in a piece of muslin ; put it in a sauce-pan with the cold water ; let it boil gently till the rice becomes *soft*, and the water reduced to rather less than a breakfast-cupful ; take care not to allow the rice to stick to the bottom of the pan.

Having given the receipt for rice mucilage, we may surely infer that every nurse and cook can make a mucilage of any of the following :—Arrowroot, sago, tapioca, Iceland moss, salep, Irish moss, grit-gruel, tous-les-mois, and flour—so that it appears unnecessary to give a separate receipt for each of these. Mucilages contain little nourishment, because the soluble part taken up by the water is composed chiefly of starch ; the insoluble containing the gluten is cast away. These preparations are soothing to the mucous membrane, are not astringent in themselves, and are useful when much nourishment is not required, or not able to be assimilated, by the system.

EGG FLIP WITH MILK.

Ingredients.—Half-tumbler of milk, one egg, a little sugar, and two teaspoonfuls of rum.

Mode.—Warm the milk (not more than warmed); beat the egg with the sugar, and add it gradually to the milk; pour in the rum very gradually, stirring all the time, to prevent it from curdling the milk.

NOTE.—In warm weather milk ought to be kept in a cool place (if possible on ice) to prevent it getting sour. Many delicacies may be preserved good some little time by observing this precaution.

MILK SOUP.

Ingredients.—Three tablespoonfuls of rice, one quart of milk, sugar, and salt to taste.

Mode.—Wash the rice well; put a piece of butter in a saucepan; pour in the milk and rice, half-a-saltspoonful of salt, stirring it till it boils; simmer gently till the rice is tender; add the sugar, and simmer for a few minutes; season with grated nutmeg, or any other seasoning if wished.

Sago, tapioca, macaroni, semolina, vermicelli, may all be done in the same way as the preceding. Tapioca and macaroni ought, however, to be soaked in water for an hour before being cooked.

WINTER GREEN PEA SOUP.

Ingredients.—One large breakfast-cupful of dried green peas, one quart good stock, seasoned with celery and other vegetables, white pepper-corns, carbonate of soda about half size of a pea.

Mode.—Put the peas into cold water the night before, as much as will cover them; add the peas to the stock with the carbonate of soda; boil till they are so soft as to be easily passed through a fine hair sieve.

EGG BEAT IN COFFEE.

Make a cup of good coffee; take an egg and break it in a

bowl ; carefully remove any stringy substance that may be in the egg ; then add the coffee, and, standing near the fire, beat it into a stiff froth, and, while beating, add a little sugar ; serve in a cup ; crisp dry toast, or a biscuit to be eaten with it.

When beat in wine, the wine must be warmed first, and then proceed as above.

NOTE.—It is presumable that the nurse, or cook, knows how to prepare an egg in other ways than mentioned in the text. Mr. Johnson, in a pamphlet designating itself "*Invalid Cookery*," which a friend of the writer's brought under his notice, gives the following directions about *boiling an egg*:—"Put a pint of water into a small sauce-pan, and let it boil for at least one minute ; put in the egg slowly by the side of the pan ; the water should be sufficient to cover the egg at all points, and should not cease boiling when the egg is immersed. The egg should then be kept boiling for three minutes, when the white will be found to be set, and the yoke (yolk) fluid." The writer ventures to assert that the merest tyro (not to mention even the *plainest* of cooks), who has seen an egg boiled not oftener than six times, knows perfectly well every one of the points here stated, and yet may be unable to boil an egg. We can scarcely suppose anyone assuming the responsible duties of either nurse or cook who does not know these points perfectly. What we would rather suggest in boiling an egg would be that attention should be paid to the *size* and the *age* of the eggs, for these materially affect the *setting* of the white in boiling. The white should be no more than just set—not hard.

TEA OR COFFEE FOR AN INVALID.

Ingredients.—One newly laid egg, one breakfast-cupful of tea or coffee, cream and sugar to taste.

Mode.—Beat up the whole egg in a breakfast-cup, with a little sugar ; add one tablespoonful of cream ; pour over it the tea or coffee very hot.

These should be added very gradually, and stirred all the time, to prevent the egg from curdling.

COCOA.

Cocoa is much pleasanter to take when boiled with milk, instead of being mixed with water, and then milk added. A teaspoonful of Epps' is enough for a cup.

BRANDY AND MILK.

When brandy has to be given, and the patient finds it hurt when swallowed, put it in milk; it is much easier for some people to take it thus (or brandy may be taken in soda or potash water, when it will remove the hot burning sensation in the back of the mouth or throat).

BRANDY MIXTURE TO BE GIVEN IN CASES OF EXHAUSTION.

Ingredients.—Two eggs, one gill brandy, one gill cinnamon water, half-ounce sugar, two drops of oil of cinnamon.

Mode.—Mix the brandy, cinnamon water, *the yolks* of two eggs, powdered sugar, and the cinnamon oil well together.

Some should be given every half-hour—three or more table-spoonfuls at a time, according to the state of the patient.

ISINGLASS.

A teaspoonful of melted isinglass can generally be mixed in a cup of tea or coffee, without the patient finding it out.

LEMONADE.

A jug of hot water; squeeze enough lemons in it to flavour it properly; add some sugar and some of the lemon peel; set it down by the fire for a quarter of an hour, then strain it, and set it to cool. Ice it before giving it to the patient.

LEMONADE.

Ingredients.—One lemon, ground sugar, one pint boiling water.

Mode.—Pare the lemon very thinly ; cut the lemon in thin slices, removing all the white outside and pips ; put the peel, slices of lemon, and sugar, into a jug ; pour the boiling water over them ; cover closely ; strain through a piece of muslin in two hours. It will then be ready for use.

PLEASANT DRINK.

Ingredients.—One lemon, one tumbler soda water, pounded sugar to taste.

Mode.—Squeeze the juice from the lemon ; strain it ; add sufficient sugar to sweeten ; when well mixed, fill the tumbler with soda water.

PLEASANT DRINK.

Ingredients.—One teaspoonful of red or black currant jelly, one breakfast-cupful of boiling water.

Mode.—Put the jelly into a breakfast-cup, pour a little of the boiling water over it, and stir till the jelly is dissolved ; add the rest of the water, and let it stand till cool.

Tamarinds may also be treated in the same way.

NOURISHING DRINK FOR AN INVALID.

Ingredients.—One tumbler of warm milk, piece of loaf sugar, one egg, two teaspoonfuls of old rum.

Mode.—Beat the egg well in a tumbler with the sugar ; add the milk (milk fresh from the cow if possible) ; when the egg and milk are well mixed, then add the rum, stirring constantly till the milk, egg, and rum are well mixed.

ANOTHER DRINK.

Ingredients.—One egg, one wine glassful of cold water, one glass of sherry, sugar and grated nutmeg to taste.

Mode.—Beat the egg, mixing with it a little cold water ; put the rest of the water, sherry, sugar, and nutmeg in a very clean sauce-pan ; make them very hot, but do not boil ; pour it gently

on the egg, stirring all the time, till they are thoroughly mixed. Serve with toast or a biscuit.

BUTTER-MILK

When butter-milk cannot be procured fresh and good, it may be readily prepared by putting a quart of new milk (or cream) into a bottle which would hold half-a-gallon ; cork the bottle tightly ; roll a towel round it, so that by pulling each end alternately the bottle is made to roll along the table upon its side. Every now and again during the process the bottle ought to be opened to admit fresh air into it. It is then to be corked again, and continued till the butter is separated, which is known by appearing in little lumps. The butter should then be separated from the butter-milk, which is a wholesome, delicious, and cooling beverage in feverish conditions of the system, and may be drunk *ad libitum*. To obtain it fresh this quantity may be made daily when it cannot be got from the dairy in a fresh state.

BARLEY-WATER.

Ingredients.—Two-and-a-half oz. pearl barley, four-and-a-half pints soft water.

Mode.—Wash the barley with cold water first, so as to remove all foreign matter ; then pour half-a-pint of the water, and boil for fifteen or twenty minutes. Pour this water off and cast it away, and, having boiled the remaining four pints, pour it on the barley and boil down to two, and strain.

This is a capital demulcent drink ; and sometimes milk and sugar, or figs (two-and-a-half oz. sliced), or one-half oz. liquorice, or two-and-a-half oz. raisins, may be added, either as a nourishing drink or to refresh, soothe, and allay irritation.

TOAST-WATER.

Toast thoroughly, but do not burn, a slice of a loaf one or two days old ; put it into a jug, and pour over it a quart of water which has been boiled ; after standing two hours, strain.

Orange, lemons, or apples may be sliced and put in with the toast. Either of these will make it more refreshing than simple toast-water, and it may be drunk *ad libitum*.

HOT DRINK.

A glass of port wine, and a teaspoonful of melted isinglass. Heat in an etna, with a little sugar, and a clove or any other spice.

TREACLE POSSET.

Ingredients.—One teaspoonful treacle, one glass of sherry, one tumbler of milk.

Mode.—Put the milk into a lined saucepan, and let it boil; have the sherry and treacle mixed in a small basin; pour the boiling milk over it; cover, and let it stand till the treacle rises to the top; which remove carefully, and pour the posset into a tumbler. Serve hot.

MEAT SOUFFLÉ (*Small Dish*).

Ingredients.—Half ounce chicken or game, two tablespoonfuls white sauce, one egg, pepper and salt to taste.

Mode.—Pound the chicken in a mortar; rub it through a wire sieve; add the white sauce; beat them together; take the yolk of the egg, and beat it into the pounded meat, with the pepper and salt; beat the white into a froth, and gently mix with the meat; pour the whole into a paper shape, and bake about fifteen minutes in a *slow* oven.

It may be made of any cold roasted meat.

FRIED SWEET-BREAD.

Ingredients.—One sweet-bread, one egg, bread-crumbs, butter, salt, and white pepper to taste, three tablespoonfuls of good brown stock.

Mode.—Soak the sweet-bread in hot water for one hour; boil for ten minutes; remove the fat; cut in slices, which egg and

bread-crumbs ; season with pepper and salt ; put butter in a frying-pan ; when hot, put in the sweet-breads ; keep turning them till done, which will be about ten minutes ; have a nice sauce made of the stock, thickened with corn-flour, a piece of butter, seasoned with pepper and salt to taste ; pour the same over the sweet-breads ; when dished, garnish with slices of lemon.

STEWED SWEET-BREAD.

Ingredients.—One sweet-bread, three tablespoonfuls white stock, one tablespoonful cream, white pepper and salt to taste.

Mode.—Soak the sweet-bread in warm water for one hour ; boil for ten minutes ; take it out ; put it into cold water for a few minutes ; remove all fat ; lay it in the stew-pan, with the stock, pepper, and salt ; simmer gently for half an hour ; dish ; thicken the gravy with a little corn-flour, and small piece of butter ; let it boil, stirring constantly ; add the cream ; let it get quite hot, but *not* boil ; pour over the sweet-bread.

STEWED SWEET-BREADS.

Ingredients.—Sweet-breads, brown soup, or good stock, half-teaspoonful corn-flour.

Mode.—Soak the sweet-breads in warm water for one hour, and boil them for ten minutes ; take them out, and put them in cold water for a few minutes ; put them in a stew-pan with the brown soup ; simmer slowly at the side of the fire for an hour, but do not let them boil. To be sent to table in the sauce in which they were stewed ; thicken with the corn-flour.

DRESSED TRIPE.

Ingredients.—Tripe, the choice pieces, salt, pepper, onion, butter, milk, corn-flour.

Mode.—Get from the butcher the choice pieces of tripe ; wash it well in salt and water ; put it into a stew-pan, with cold water ; let it boil till tender, which will be in five or six hours ; drain the tripe well from the water ; have ready in a sauce-pan

one teacupful equal parts milk and water, piece of an onion, salt, and pepper to taste ; a piece of butter ; let it boil ; put in as much tripe as will be required ; thicken the sauce with a little corn-flour ; simmer for three-fourths of an hour.

The rest of the tripe will keep for a day or two, if put in a cool place. Tripe should never be given to an invalid, unless it is perfectly tender, and for this purpose the tripe should be steeped in cold water a night before being used, and well strained.

PALATES.

Ingredients.—One palate, pepper, salt, three tablespoonfuls of good stock, small piece of butter.

Mode.—Wash well in salt and water ; put the palate in a stew-pan to boil for a few minutes ; take it out ; skin it ; have the stock in a stew-pan ; cut the palate in pieces ; put it in with the stock ; pepper and salt to taste ; stew till tender ; put in the butter ; mix the corn-flour with a very little water ; let it boil, stirring it ; dish in a hot plate, and serve with vegetables or toast.

MEAT SANDWICHES.

Ingredients.—One thin slice of bread, small piece of butter, one-fourth lb. fillet steak, salt and pepper.

Mode.—Butter a slice of bread ; cut it very thin ; grate the steak through a bread or vegetable grater, and as the meat comes through, scrape it off with a knife, and spread it on the half-slice of buttered bread ; sprinkle a little salt and pepper on the meat, and cover with the other half-slice ; cut off the crusts, and cut the sandwich in three pieces.

In irritable and weak conditions of the stomach, meat introduced in this form may be retained when all sorts of cooked meat is rejected.

SANDWICHES.

Ingredients.—Bread (rather old), butter, cold meat, salt, mustard, parsley.

Mode.—Butter the bread, and cut in very thin slices ; sprinkle a little salt, and spread a little mustard over it ; cut the beef in small flakes, as thin as possible ; chop the parsley very small ; put two or three layers of the flakes, with a little of the parsley, on the bread ; place another bit of bread, prepared in the same way as the first, on the top. Be careful to trim the edges of the sandwiches neatly.

SCALLOPED OYSTERS.

Ingredients.—Six oysters, large tablespoonful finely grated bread, small piece of butter, pepper to taste.

Mode.—Scald the oysters in their own liquor ; take them out ; beard them ; strain the liquor through a fine sieve ; put a small piece of butter in a saucer, a tablespoonful of the liquor, then the oysters ; sprinkle the bread thickly over them, taking care to have them thoroughly covered ; put two or three *small* pieces of butter on the top ; season with pepper, and brown in the oven. Serve hot.

STEAMED HADDOCK.

Take the middle cut of a very fresh haddock (of about one lb. weight) ; scale it clean and well ; put it into a small jar or jelly can with one-fourth of a saltspoonful of salt sprinkled over it ; put the jar into a sauce-pan of boiling water, and let it boil from twenty minutes to half-an-hour, according to size of fish ; serve with the sauce that is in the jar and a little white sauce. Salmon or any other fish can be done in the same way. But then observe the following

GENERAL DIRECTIONS ABOUT FRYING FISH.

Have a frying-pan three or four inches deep—because lard is so inflammable, that, should any be spilled into the fire when the fish is inserted, accidents might happen—with two inches fresh boiling lard, so as to cover the fish entirely. The test for knowing when to put the fish on is to put a small piece of bread

into the boiling lard, and as soon as it becomes of a clear brown colour the fish ought to be inserted at once. It will not do to trust to the lard boiling through merely, because if the heat is insufficient the lard soaks into the fish and makes it heavy. When the fish is small, the pan ought to be raised a little, so that the heat does not increase too fast, for then the fish gets dark ; but if the fish is large, allow the little piece of bread to be somewhat dark, as a large fish will reduce the heat.

Afterwards, the egg well whisked, should be thinly and evenly laid on with a brush. This should dry a little before the crumbs are added, which ought to be very fine. When the fish are done, lay them on a dish before the fire to dry a little, but not too long, as then they will get tough. Care always should be taken that the crumbs are got from a stale loaf ; then put into the oven to dry ; afterwards put into a well-corked bottle in a dry place, and ready for use.

After the lard has been used, it ought to be strained (put through muslin) into a basin, and kept in a cool place. The same lard may be used several times.

If apple fritters or anything delicate is to be fried, fresh lard should be used.

TO KEEP FISH FRESH.

Sprinkle a little salt on a very clean piece of marble or flag-stone ; clean the fish thoroughly ; rub a little sugar on the bone, and as far as the finger can reach, and all about the head ; lay the fish separately on the stone ; sprinkle a little salt over them ; keep them in a dark place. To be soaked in water for two hours before being cooked.

CALF'S-FOOT JELLY.

Ingredients.—Two jelly knaps, one saltspoonful salt, one-half lb. loaf-sugar, four lemons, five eggs, one oz. whole cinnamon, one-fourth oz. isinglass, three glasses of sherry, one-half glass brandy, one-half glass rum.

Mode.—Put the jelly knaps and salt in a stew-pan, with as much cold water as will cover them ; let them simmer slowly for six or eight hours, till the strength is all out of them ; strain through a hair sieve ; measure the stock ; it is better to stand over night to jelly ; remove all the fat from the surface ; wring a clean cloth out of very hot water ; wipe the top to remove all grease ; put the stock into a *very clean* jelly-pan, taking care to leave the sediment ; to every quart of stock put in the whites of five eggs well beat, and shells of the eggs, one-half lb. loaf-sugar, the peel of two lemons pared very thin, the juice of four lemons strained, one oz. whole cinnamon ; stir well together one way ; put the jelly-pan on a slow fire ; when nearly boiling put in the isinglass ; let the jelly boil for three minutes ; pour in the wine and brandy and rum ; let it just boil ; have ready a jelly-bag wrung out of *very hot water* ; fasten it to a stand, or the backs of two chairs ; place it near the fire with a basin underneath it ; pour the jelly into the bag, and return it again and again till clean ; fill the moulds with cold water ; when the jelly has run through, pour out the water from the moulds, fill them with the jelly, and put in a cool place till required.

If the patient thinks calf-foot jelly too cold, put some of the jelly in a teacup, or into a night-nurse or etna, and put the teacup in a sauce-pan of boiling water. Let it stand for a few minutes ; the jelly will be melted, and the invalid can drink it. Be careful not to allow any of the water to get into the cup.

CALF'S-FOOT JELLY.

Ingredients.—Two calf's feet, two oz. white cinnamon, four lemons, one-half lb. loaf-sugar, one pint sherry, one glass rum, three eggs, two or three cloves, a good spoonful burned-sugar, a little parsley.

Mode.—Break up the feet, and put them in a stew-pan, with sufficient water to cover them ; let them boil for eight or ten hours till quite tender ; strain, and put the fluid to cool over

night ; in the morning take off the oil carefully (if necessary, scrape with a knife) ; turn the jelly into a large clean towel, and wipe off all the grease and oil. Have your jelly-pan *thoroughly* clean ; then put in the jelly, with the thin parings of two lemons and the juice of four, the burned-sugar, cinnamon, whites and shells of the eggs, cloves, parsley, and sugar ; let it all boil well, stirring all the time ; then pour in the wine and rum ; stir it and take it off the fire ; add half-a-cup of cold water ; cover with a clean cloth for five or six minutes ; wring the jelly-bag out of hot water, and hang it up, and pour the mixture into it ; what runs through return again and again until quite clear and pale ; fill the shapes, and set them aside to cool.

OX-FOOT OR COW-HEEL.

Ingredients.—One ox-foot, saltspoonful salt, teacupful milk, one small onion, twenty-four white pepper-corns, teaspoonful corn-flour, small piece of butter, cold water, one egg.

Mode.—Procure from the butcher one ox-foot cleaned ; split, and remove the fat from between the toes ; wash well in salt and water ; put into a stew-pan, with as much cold water as will cover it, the onion, salt, and pepper ; let it boil slowly till quite tender, but not broken ; take it out, and let it cool ; remove *all* the bones, and cut the meat into squares about two inches in length ; mix the milk and corn-flour ; season with salt and a little ground white pepper ; put into a sauce-pan with the butter ; let it boil ; put in pieces of the foot ; let it boil till the meat is warmed ; beat up with the yolk of one egg ; mix it gradually with the sauce ; do not let it boil, as the egg will break ; serve very hot.

Strain the stock in which the foot was boiled ; let it stand till cold ; when jellied take off the fat ; it can be made into very nourishing soup by adding the yolk of an egg well beat, milk, corn-flour, two or three tablespoonfuls of cream, and seasoning to taste.

POTTED MEAT.

Ingredients.—One ox-foot, one-half lb. finest steak, pepper and salt to taste.

Mode.—Slowly boil the foot for ten hours in as much water as will cover it, with a very little salt ; when the meat is quite tender, strain the stock, putting the foot into a separate basin ; when perfectly cold, take the meat carefully from the bones ; mince it very fine, adding the steak, and removing all fat ; boil it with some of the stock till the minced meat is ready ; season with pepper and salt to taste ; pour into small moulds or cups.

The rest of the stock makes better jelly than from calf's-feet.

POTTED MEAT—*Another Way.*

Ingredients.—One-half lb. lean beef, pepper and salt to taste, stock as preceding receipts.

Mode.—Put the beef into a jar, with a teacupful of stock, salt, and pepper ; cover closely, and put the jar into a sauce-pan with boiling water ; let it boil till the meat is tender ; when cold, mince very fine, removing all fat and skim ; put the meat into a sauce-pan, with two breakfast-cupfuls of stock ; season with pepper and salt to taste ; boil for five minutes ; pour into very small moulds or cups.

HARTSHORN JELLY.

Ingredients.—One-half lb. hartshorn shavings, three oz. isinglass, whites of six eggs, sugar, and water.

Mode.—Boil the hartshorn shavings for three-and-a-half hours in four-and-a-half pints of water ; stir into it the isinglass dissolved ; add a large glass of brandy ; sweeten with white pounded-sugar ; when luke-warm, pour the whole into a sauce-pan, with the beaten whites of the eggs ; stir it, and let it boil for two minutes, and strain through a jelly-bag till perfectly clear.

A tablespoonful or more of this may be made luke-warm, and taken several times in the twenty-four hours. Brandy or port wine may be added if necessary.

LIGHT REFRESHING JELLY.

Ingredients.—Half-ounce isinglass, half-ounce gum-arabic, half-ounce sugar candy, five tablespoonfuls sherry, one tablespoonful cold water.

Mode.—Put the above in a jar, closely covered, for twelve hours, in a warm place ; after which, set the jar in a sauce-pan of hot water near the fire (not to boil), till clear ; when cold, it is fit for use. A teaspoonful to be taken when the patient feels weak or exhausted. This jelly will not look very clear.

AS MADE AT ST. MARY'S ISLE.

Ingredients.—One-fourth oz. isinglass, one-eighth oz. gum-arabic, one-fourth oz. candy sugar, small teacupful cream.

Mode.—Same as the preceding.

CLARET JELLY.

Ingredients.—Half-ounce isinglass, half bottle of best claret, sugar to taste.

Mode.—Pour as much boiling water over the isinglass as will melt it ; pass it through muslin ; add it to the claret and sugar. It should be of the consistency of calf's-foot jelly.

CHICKEN JELLY.

Ingredients.—Leg of a fowl, one breakfast-cupful of water, salt to taste.

Mode.—Take the leg of a fowl, skin it, scald it, and remove all fat ; wash clean in cold water ; put into a sauce-pan with the water and salt ; boil gently *to rags* ; strain through a hair-sieve into a cup ; let stand till jellied. (The pinions make good jelly, not so strong as the legs ; the breast will *not* do).

FATTENING JELLY.

Ingredients.—Leg of pork, two gallons water, one oz. mace, half-ounce nut-meg (if spice is liked), salt.

Mode.—Cut up the pork, and break the bone into it ; put the water with the spices and salt ; boil gently till the water is reduced to one third ; strain through a fine sieve, and when cold, take off the fat.

A breakfast-cupful, made a little warm, to be taken the first thing in the morning fasting, one between meals, and another at bed-time.

Most invalids prefer it in the form of jelly, cold and without giving it a name.

NEW MILK JELLY.

Ingredients.—Two calf's feet, two pints of water, two pints of new milk, one lemon, two tablespoonfuls of powdered loaf-sugar, one saltspoonful of salt.

Mode.—Put the calf's feet, after they are well cleaned, into a jar, with the milk, water, the rind of one lemon very thinly pared, the sugar, and salt ; cover the jar closely ; put it in a sauce-pan with boiling water, and boil till the feet are quite tender, and the bones fall out ; strain into little moulds or cups ; when cold, remove any fat from the top ; dip the mould in warm water, and turn out. Serve with cream.

STEAK.

Ingredients.—Small piece of fillet-steak, piece of toast, a little salt.

Mode.—Put the toast on a plate before the fire ; hold the steak with a toasting-fork before the fire and above the toast, so that the juice from the steak may fall on the bread ; turn frequently ; when ready sprinkle a little salt over it ; and serve (on the toast) very hot.

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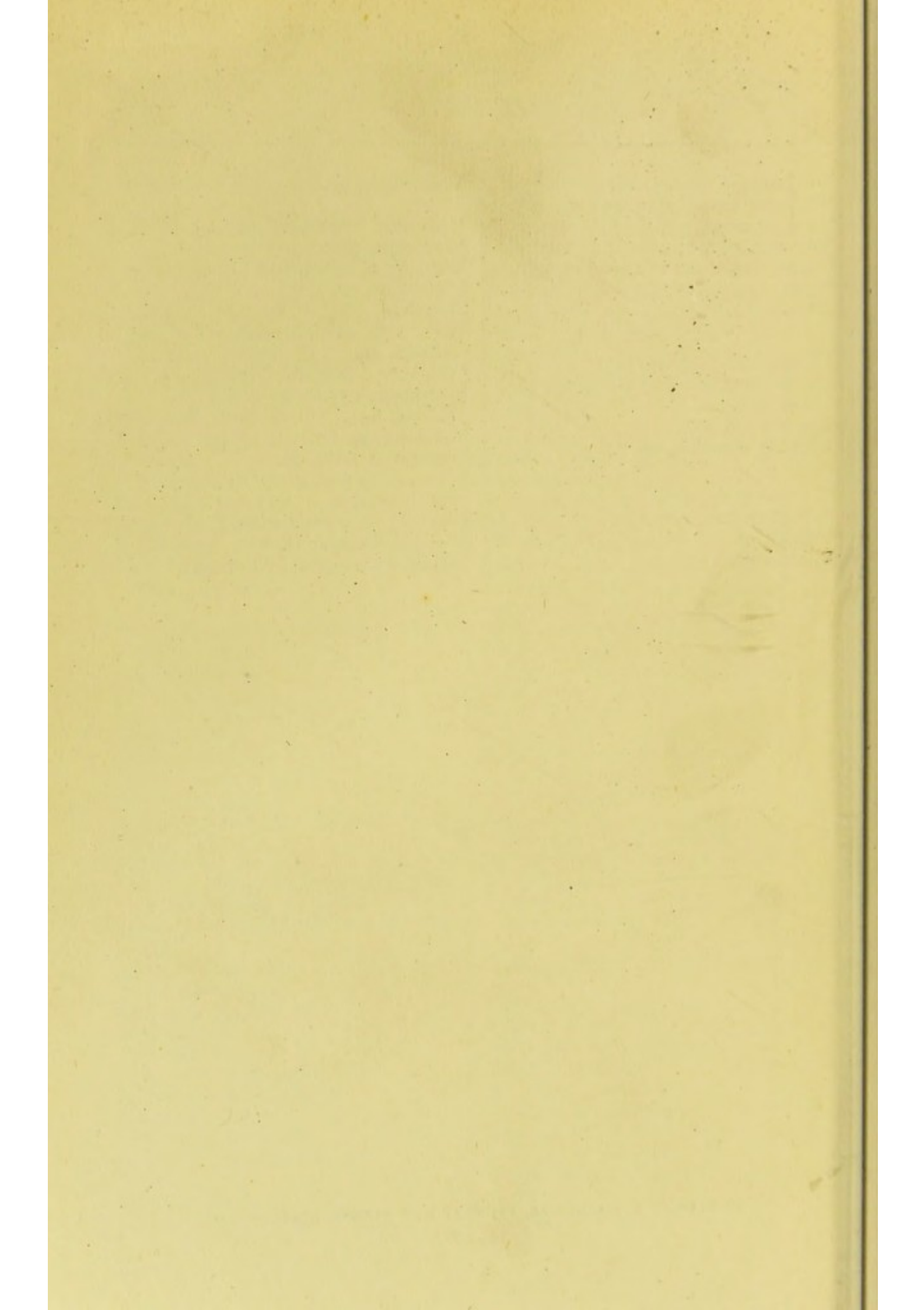
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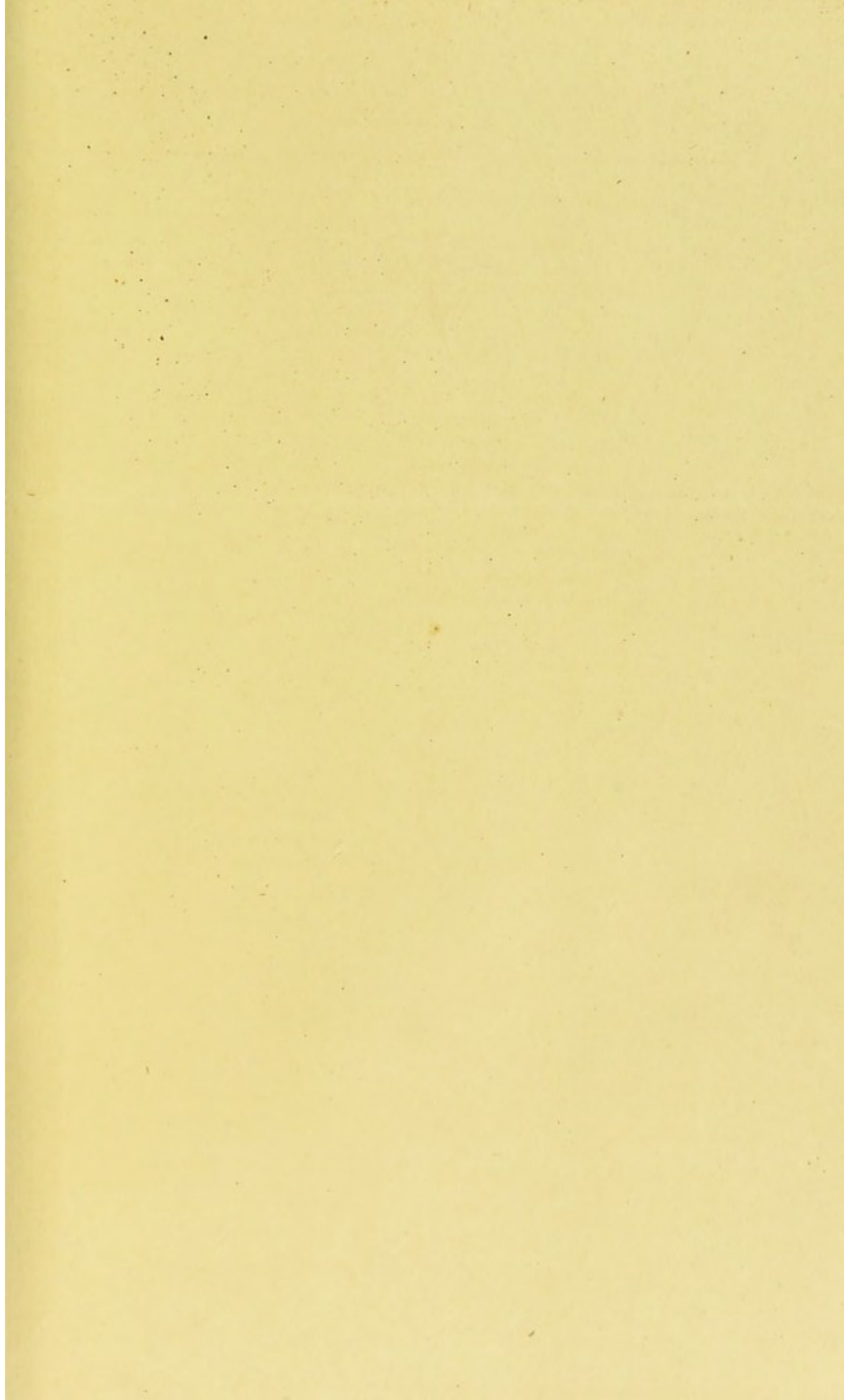
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