To this general table of diet, it is in the power of the physician or surgeon to add, in a table for extraordinary articles, any farther refreshment or nourishment the cases of individuals may require, whether of beef, bread, milk, potatoes, rice, flour, figs, fruit, liquors, &c.

It appears to be the custom in most hospitals to divide the mass in the cooking place, from which it is sent to the wards in separate portions. This practice Dr. Jackson strongly condemns. The beef and potatoes are in this way neither hot nor cold. They are therefore less relished, and probably fit less light on the stomach. Besides, by allotting fixed portions to persons who have not appetite to consume it, the disposable part, the beef and bread, is put under the pillow in reserve for another time, and is reluctantly parted with after it becomes a nuisance. In the hospital of the depot, this evil had, according to Dr. Jackson, no place, for the distribution was made not according to supposed but actual wants. The diet of the acute wards was prepared separately in its own vessels, and after its own rule. The bouillon was in readiness in the wards at a certain hour, and it was distributed
tributed at times which best suited the condition of the patient. The soup or broth of convalescent wards was prepared in one boiler, at least according to one rule. The quantity of meat allotted to each ward was calculated previous to dressing, and put into the boiler separately, with a tally affixed. When dressed, it was carried into the ward in the mass, and divided by the steward or wardmaster at the messring-table. The dinner by this means was served while hot and in season, and an opportunity was thereby furnished to every one of witnessing that the regulated allowance was fairly divided.

The number and quality of nurses and attendants necessary is next considered and explained. In a large ward of acute disease, containing twenty patients, one female nurse and two male orderlies were found equal to the duty. One nurse and one orderly would have been sufficient for a smaller ward of twelve patients. In convalescent wards, nurses were not employed, for there was no sickness. One male attendant is sufficient for all the purposes of fifty of this class.

"His duty is confined to cleaning the apartment, taking care of the utensils, and bringing
ing the victuals from the cooking place, into which no patient is permitted to enter. The convalescents are capable of washing, combing and cleaning their own persons; and it is a point of discipline, that they be obliged to do it. To every hundred convalescents, is, or ought to be, appointed a ward-master, a non-commissioned officer of a firm and steady character, who bears authority, who knows what soldiers are, and what is implied in their duties. His trust is confined to the convalescent wards, for medical officers themselves look directly to economy and discipline in the wards of the sick, and from them only nurses are to receive directions. In surgical wards, female nurses are not employed.—One orderly is equal to the attendance of forty persons of this class; for there are rarely any among them who are not capable of performing common offices for themselves. It is different in hospitals of wounded men. There the proportion of nurses and orderly attendants cannot be less than that which is allowed in the wards of acute disease. To the small rooms, in which were placed two persons, extremely ill, extremely weak, or under cure after a surgical operation of consequence, one female nurse
Purse was allotted, assisted in night duty by an orderly, taken from convalescent or surgical wards, where no night attendance is required.

"Such is the proportion of nurses and orderlies, which was judged to be sufficient for the due attendance of the sick of the hospital of the army depot, and which was found upon trial to be so. The proportion is different in other British military hospitals, viz. one attendant for ten sick persons. According to this rule, an hospital of four hundred sick requires forty nurses or orderlies; according to the plan adopted at the depot, twenty-one are sufficient. The diminution is of one-half nearly; yet a double proportion of attendants is provided for those who actually are sick and ill; for to seventy persons in the acute stage of disease, or in a state of weakness and danger, thirteen persons were attached. Thus, the general means provided for the service, are fewer by one half nearly than the common rule admits; the effect, in the point of application, is nearly doubled.

"Besides the nurses and attendants of the sick, another class of servants is required in the economical administration of hospitals, who
who must be qualified for the duty, and in number proportioned exactly to the ends. The servants of the kitchen stand among the first. In an hospital consisting of four hundred persons, there must be two male cooks, for the great mess,—the provisions of the convalescent and surgical patients; one female cook, a person who has some taste and skill in preparing nice things,—the refreshments of the wards of acute disease. She must know how to make beef-tea and bouillon in the best manner, tarts, puddings, jellies, and all manner of drinks. The making of tea is known to every one; and in order that tea be always at hand, it was directed to be made in the wards by the nurses. For the great work of washing and drying, a very important part of hospital administration, six washers are the smallest possible number admissible. If diligent and properly furnished with every convenience, they are equal to the task; but they must be subjects of the better class, and well experienced; viz. two women for washing linen, sheets and shirts; four men,—two for washing bedding and clothing, and two for drying and mangling. The inspection of this was placed under an intelligent
gent person, as steward of the linen and clothing in present use. She is supposed to know something of figures, so as to be able to keep an account of her charge. A sempstress for repairing linen, and a tailor for repairing clothing, act under her orders. The purification of the person is one of the first processes in the treatment of the sick; and bathing, hot or cold, was often resorted to in the after-progress of the disease, at the hospital of the depot. Baths were therefore in readiness at all times. The office of providing them was committed to a careful and intelligent person styled superintendent of the bath. It is necessary in economy, indispensable to the propriety of appearance, and connected with the safety of the health of an army, that soldiers be not permitted to carry with them into the sick-wards any part of their own apparel. The appointment, therefore, of a person, who may be called keeper of packs, to take an account of the sick soldiers' clothing, to destroy what is bad, to give to be washed what is dirty, to arrange in order what remains, to label it, to place it regimentally in the pack-store, to restore it when wanted, responsible, in the mean time, that there be no irregular loss, is an office
vice which cannot be dispensed with in a large hospital. It were better that this keeper of packs be a non-commisioned officer. He must at all events be a correct and accurate man. In addition to the duty now mentioned, the keeper of packs may be employed to conduct the sick from the barracks to the hospital for admission; after dismission to re-conduct them to the barracks, to deliver them over to the adjutant or sergeant-major, and obtain a quit-tance, that no loss of necessaries or clothing has been sustained during sickness.

"The business of an hospital, of four hundred persons, particularly if it has an active movement, implies a considerable share of writing, sufficient to employ a diligent clerk. There is, for instance, 1st, a register of all the persons who enter the hospital, viz. name, regiment, disease, date of admission, date of dismission, or of death; 2d, a ticket placed at the head of each person's bed, marking the name, regiment, disease, date of admission; 3d, a ticket of dismission, marking the date of admission and discharge, as a voucher to ascertain the number of days for which the soldier is liable to hospital stoppage; 4th, ticket, marking the date of death, sent to the general's office;
office; 5th, morning report; 6th, weekly state; 7th, monthly returns, in two forms, one medical, the other military, marking the regimental movement; 8th, monthly return of the medical staff; 9th, weekly returns of admissions, for the use of the War-office and Pay-office; 10th, weekly returns of dismission for the same; 11th, weekly returns of fuel and candles, according to the form prescribed by the Barrack-office; 12th, weekly abstracts of receipt and expenditure of provisions; 13th, weekly abstract of money account; 14th, weekly pay bill of servants’ wages; 15th, monthly return of hospital stores, clothing, utensils, &c. The whole of this writing was performed by one person; and though three copies of each paper were required, the labour was not oppressive; but the time was fully occupied.

“A steward in an hospital of the extent stated, holds an office of some trust, and of considerable labour: he requires to be active and diligent. It belongs to his duty to make out the provision returns, according to the form annexed; to keep an account of expenditure, authorised by general and extra diet

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tables; to submit the account of expenditure for examination at the stated periods, supported by authenticated vouchers, viz. the verified provision returns, and the certified tables of extra allowance; to apportion the diet for the different wards, according to the different rules of diet; to divide the meat of each ward, and to affix a tally to it, previous to its being sent to be dressed; and to see it divided fairly and correctly after it is dressed. He is further employed to provide the small articles, which are occasionally wanted in the hospital, bringing with him, at the time of weekly settlement, the authorities, the bills of parcels and receipts of payment, in order that he may be entitled to reimbursement of what he has paid on the account of the sick. This is a duty which nominally belongs to purveyors; but has often been done, and may always be done, by a person without a commission. To the steward of an hospital must be attached a strong, honest and intelligent person, as porter or assistant.

"According to the above calculation, the number of persons employed in the economical administration of an hospital of four hundred persons, amounts to sixteen. Every one
of this number must necessarily be fully employed; but the work to be performed does not exceed the quantity of the means allotted, if the requisite qualifications be found in every one, that is, bodily strength, and knowledge of the nature of the duties. This was proved at the hospital of the army depot."

The economical administration of hospitals is placed under the immediate inspection of purveyors; but Dr Jackson attempted to conduct that part of the business without such assistance, and assures us, that he carried his attempt into execution without difficulty and with very little trouble. The writing was done by the clerk, and the economy managed by one of the assistant surgeons.

We next come to the medical attendance, on which subject we shall again quote Dr Jackson's own words.

"The quantity and kind of assistance required for the medical duties of an hospital of four hundred persons, whether of commissioned officers, mates, or subordinate servants, is next to be considered. In an hospital of the specified number, it may be supposed, that nearly one-third requires surgical treatment. A surgeon and assistant-surgeon, with a surge-
ry man, are, it is presumed, perfectly equal to this duty. A physician, with two assistant surgeons, or mates, necessarily supposed to be intelligent, zealous and active, is equal to the treatment of the others, on the supposition, that the sick are classed in the manner which has been shown, and that certain remedies of common form are always ready prepared, carried round by a dispenser, and administered at the time they are prescribed. To execute the part of preparing and dispensing medicines, an apothecary or assistant surgeon will be required; a person properly qualified and conscientiously diligent, to whom must be attached two intelligent people as dispensers. This apothecary or assistant surgeon, by whatever name he may be called, is supposed to possess some practical skill in chemistry; for besides superintending the surgery, preparing and having always in readiness remedies of common form, as well as compounding the particular prescriptions, it will be useful that he prepare many of the chemical remedies; and it is essential, that roots, which lose their virtues when reduced to powder, be powdered only according to the expected demand. For this purpose, a stout and intelligent person as a labourer must be attached
attached to the hospital laboratory. The apothecary or assistant surgeon, acting in the above capacity, has in charge the medical stores, and consequently has to give in an account of expenditure monthly, accompanied with a voucher expressing the application, according to the annexed form. To the above persons, deemed necessary for the medical duties of an hospital of four hundred persons, are to be added three barbers, for common shaving, for shaving the heads of sick men, and for administering glysters; making in the whole seven servants and seven medical officers, commissioned and warrant; to whom may be added a person for the management of the hospital for men under cure of itch.

"Besides the hospital duties of medical officers at the depot, the labour of examining and prescribing for sick in barracks, for whom there was no better accommodation, was of great extent at one time. For three months, the amount of the morning sick-report, including convalescents who lodged in a barracks-room set apart for their reception, frequently exceeded two hundred. This duty was executed by the assistant inspector, or by
the head of the hospital, assisted by an hospital mate. But to this labour was added another, which occasioned interruption and occupied time. Every person who enters the garrison is examined and reported upon, as to the state of health or fitness for duty,—the recruits by the garrison surgeon, the old soldiers by the head of the medical department, who also examines every person who goes from the garrison to foreign service. This is a fixed duty of the depot; but besides this, it happened, during the pressure of sickness, that every person then present was examined correctly, so as to obtain information of any blemishes actually existing, or of impediments likely to arise in the course of the service to which particular regiments were destined, with a view, that the troops of the line, in matter of health and bodily power, might be so arranged, as to prove upon trial in action an uniform and consistent whole. The blemished and objectionable subjects were noted; and the defects specified in such manner, as to furnish information for a new arrangement of the rejected parts, if such a measure should be deemed necessary; for though less eligible for the line, they were still
still useful, as being capable of the common duties of a garrison."

It is customary, Dr Jackson tells us, with most persons intrusted with the direction of hospitals, to write out and make known certain forms of regulation, as standing orders for the general government of their charge, but Dr Jackson preferred giving his orders personally, as he thereby conceived that he communicated, along with his orders, some share of that interest which he himself felt. A full and correct examination of every person in the hospital was made twice a-day, at ten in the morning, and at seven in the evening. But besides these visits at regular hours, the acute wards were visited frequently, six or eight times a-day, and remedies of importance were administered in critical cases under the eye of the person who prescribed. But the mode of attendance and management will be best illustrated, by following our author in tracing a patient progressively from the commencement of illness to the return of duty.

"The sick in barracks are selected, and reported by the different serjeants of division before the hour of parade. From the sick reports of divisions a general one is formed. The
The whole mass of sick is collected at the inspection-room, and examined; the lighter cases are treated, and dismissed to their quarters; the more serious ones noted to be sent to the hospital; the name, the regiment, and disease are marked in the paper of admission. The patient thus described is conveyed to the reviving or bathing room; his head is there examined and combed; if foul, the hair is cut off, so that the person may be made perfectly clean; if bleeding be necessary, the operation is then performed, for bleeding is often preparatory to other means of cure. This process being finished, he is undressed, washed with warm water and soap, even scrubbed with a hard brush, till the incrusted dirt and impurities are removed from every part of the body. The sensibility of the skin being restored, even the animation preternaturally excited, by the use of the brush and the warm water, cold bathing, or washing with cold water, where judged suitable to the case, is next employed. Some buckets of cold water are poured upon the head and shoulders; or the body is washed all over with cold water, by means of a very large sponge. This, as being less formidable to timid persons than a bucket
bucket of water, and perhaps equally effectual, is generally preferred. The patient, being now completely bathed, and perfectly clean in person, is rubbed dry with linen towels, or old sheets, reserved for the purpose on account of economy. Particular subjects, after being dried with linen-towels, are rubbed for some time with warm cloths of flannel. In this state, furnished with a clean night-cap, shirt, gown and slippers, he is carried by proper servants to his allotted ward. When placed in bed, the medicines prescribed for him are administered, and the means required in the expected operation are got in readiness. He is again visited in due time, in order to ascertain the effect of the remedy; if the intentions are fulfilled, he is allowed to rest; if not yet fulfilled, or not likely to be so, the remedy is repeated, modified or changed, in such a manner that the intended effect shall be secured in proper time. The visits in the acute wards are frequent, till matters are in proper train. When the disease has ceased, and appetite begins to return, he moves on to the first order of convalescent wards, and enters upon half-diet. In the half-diet ward he is visited twice a-day; and he is narrowly examined at the usual
usual periods of relapse. If relapse appears to threaten, it is generally turned off by the timely exhibition of an emetic, or other remedy; if it actually does take place, a retrograde movement into a sick-ward is necessary. The patients, in the half-diet wards, are allowed to walk out when the weather is good; and in addition to the common diet, there is made such extra allowance of wine, porter or other refreshment, as the case may seem to require. From the half-diet ward he again moves on to full diet, which is the last stage of convalescent progress. He remains here, under such regimen of diet, medicine and exercise, as is thought to be most conducive to health, till recovery is believed to be insured; he is then dismissed to barracks, to enter upon duty, after a day or two of indulgence."

Dr Jackson next details the advantage of furnishing hospitals with provisions from a market on the spot, rather than procuring them from a distance, and of examining the hospital accounts at stated periods by a board of medical officers; and he concludes this section of his book with recapitulating his services as a medical officer, in order to give greater weight to his opinions.
The third part of Dr. Jackson's work relates entirely to his personal differences with the medical board; and in an appendix, for the length of which he makes an apology, he explains the principles by which he has been directed in the cure of disease. His theory is extremely simple. **Health** consists in a just rhythm in the animal movement of actions, and **Disease** in the perverted rhythm of movement. Fever is a derangement of the natural rhythm, produced by irritating causes; and debility is an effect, not the cause of fever. In mentioning the different kinds of fever, Dr. Jackson endeavours to prove that the sphere of contagion is not extensive, and that it can scarcely be supposed that it will even spread extensively, so as to communicate a general epidemic either to a town or country. "Hence," says he, "the dread of imported contagion is a bug-bear. The fact of importation in the manner alleged is not supported by one **authentic history**, and it is not consistent with the nature of things." In the very same page in which our author draws this strong conclusion, he relates the following fact. "A part of the same people," that is, the British sick in the neighbourhood of Bremen in 1795, "though
"though in a less desperate state of disease, were disposed at a neighbouring village. They were also placed in barns, but here the villagers lived under the same roof. The disease was communicated to them, and in the course of two months, one-third of the population was dead." The authenticity of this fact Dr Jackson will admit; and to us it proves that imported contagion is consistent with the nature of things, and that it proved a very serious bug-bear indeed to these poor villagers.

Our author now proceeds to treat of the cure of fevers, on the means of restoring the natural harmony of movement; and here every one must listen to the opinions of an author of so great experience with becoming deference, however impatiently they may have waded through his theoretical effusions. Before attempting to restore the natural harmony of movement, Dr Jackson tells us that it is often necessary to arrest the irregular course of the existing motions, in order to bring back with greater facility and certainty the form of the rhythm which has been lost, in the same manner as it is often necessary to cause a military column to halt when moving incorrectly, so
that it may more easily lay hold of the regular cadence of step. There are many cases, he says, where this may be done boldly and without fear; and of the preliminary remedies employed in this view, bleeding and emetics are two of the most powerful and most generally applicable. After the diseased motions are arrested, the stimulus of the atmospheric air is often sufficient to solicit the organic structure to resume its natural action; where insufficient, Dr Jackson considers alternate warm and cold bathing amongst the most powerful of our means.

Bleeding.—Dr Jackson strongly combats the idea, that debility is the cause of disease, and that it can be removed by direct addition to the force of the moving powers, which he considers as the most dangerous doctrine that has ever influenced medical practice; for though the direct stimulation of wine and opium may sometimes forcibly terminate the course of a fever, yet it is only a random effect; and where it fails, it only precipitates the fatal effect. In the same view, he considers as absurd the idea that abstraction has a positively debilitating effect; for, as in the economy of a machine, the correct performance
ance of which depends upon a due form of movement in time and force, the effect is regulated by the addition made to the energies of the moving power, or by the removal of resistances which interrupt the course; so the effect or energy of movement, in certain conditions of disease, is often more assisted by taking away two pounds of blood, than by adding two pints of wine, or other strong liquor. Abstraction has thus, Dr Jackson thinks, an effect stimulative of the energies of movement; and it is no unusual thing to observe, that persons debilitated to the last extreme, that is, persons in fever, who are as it were paralyzed, or not capable of producing a single action of effect, rise up instantaneously into full force and vigour, in consequence of a very copious bleeding. Such are our author’s theoretical opinions on the use of bleeding; his practical rules for its employment in fever, we shall give in his own words.

“Among the general circumstances which influence medical practitioners in the use of bleeding, may be reckoned age and sex. It has been already observed, that bleeding is less necessary, where there already exists susceptibility of impression. On this ground, it
is less necessary in tender years, and in youth, than in grown persons, or in old persons; less necessary in females than in males. It is also less necessary in persons of a soft, thin skin, a lax and delicate fibre, than in the opposite circumstances. It also has appeared to be less necessary among the inhabitants of campaign, fertile and moist countries, than among the inhabitants of hilly, barren and dry districts. It is less necessary, for the most part, among the rich, luxurious and enfeebled classes of men, with their excesses of sensibility of mind and body, than among the poor, temperate and hardy rustic; less necessary in summer, unless in very hot and very dry weather, than in spring; and less necessary in autumn, than in winter. These are general circumstances, which have, or which ought to have some influence in forming an opinion concerning the propriety of bleeding. Knowledge of them may often be useful, in directing the proper measure in point of quantity. The particular circumstances belong to particular subjects, under particular forms of malady."

"In the earlier stage of fever, where the pulse, in its motion, is irregular in time and force; in its action, quick, hard, irritated, and labouring
labouring to overcome a resistance; or where it is regular in time, but sluggish in action, oppressed, and without energy, that is, without freedom of expansion and celerity of contraction; the effects of bleeding are equally beneficial, though the conditions be seemingly different. The circumstances which accompany these opposite states of the pulse, are also different and peculiar. In one, the respiration is quick and hurried, and the breath is hot; in the other, respiration is oppressed, interrupted with sighing, or connected with a difficulty of expanding the chest, as if from want of power, without interruption from pain. The pain of the head, in the one, is rending and tensive, with strong pulsation of the carotid and temporal arteries, and with great heat on the forehead; in the other it is heavy and dull, with slumber and inability of commanding thought, with a clammy, and sometimes a cold forehead. The countenance, in the one, is agitated and confused, with marks of agitation, expressive of pain, sometimes threatening and grim; in the other it is heavy and torpid, sometimes dark, bloated, and inanimate. In the one the skin is thick, the surface dry and distended; in the other, damp and
and greasy, without that activity of life, which occurs in natural perspiration. In one the heat is deep, concentrated rather than superficial, ardent rather than warm; in the other it is often below the just point of heat in health, but its impression is different from that which the heat of a healthy body imparts, known by sensation to persons of experience, but not easily described. In one, the pains in the back and limbs are severe, and all the joints seem as if they were broken and unhinged. In the other, there is torpor, an inability of producing action of effect rather than any excess of pain. In both, the secretions are suspended with a sense of fulness and tumult, or with marks of bloated stagnation and inability. These conditions are different externally; but they are often only parts in the same chain, under different circumstances of expression; they are under the influence of the same remedy in the processes of cure. This form of fever, whether appearing with the marks of irritation or suspension of action, (for that appears to be an accidental circumstance,) is more common in dry weather and in the spring season, than at other times, or in other circumstances. It is common in excessive hot
and dry weather in Europe; and it is common with Europeans, as the first disease, after arrival in the tropical climates, particularly in dry situations and in dry weather; or under change of condition, from free air and the practice of exercise in free air, to crowded places and a state of rest, as in embarkation in crowded ships. In one case, the circulation seems to stagnate, the blood moving slowly in the veins, as if from the operation of a suspending power; in the other, movement is tumultuous, but circulation is impeded. In both cases, seemingly so different, bleeding is an indispensable remedy. If properly managed, it either effects a safe and speedy cure, or it paves the way for a cure being effected by other means. In the case of tumult and irritation more particularly, the blood ought to be drawn from a large orifice, not measured by ounces, but allowed to flow till the end is attained, that is, till the tenlive pains, sense of fulness, and the sense of resistance in the pulse, be no longer perceived, the movement becoming regular, free, and open; or, till the movement from being sluggish, languid and oppressed, become brisk and energetic, till the countenance brighten up, till the power of expanding
expanding the chest be restored, till the skin be relaxed, and till the secretions resume their course, an effect indicated by the breaking out of a general perspiration, by sickness, vomiting, evacuations by stool, or by faintness. It is seldom that less than twenty ounces will insure this purpose in a violent disease. It may even sometimes require forty to produce complete effect; but it is necessary that effect be produced; and it will be produced by perseverance, for it is presumed, that it has been previously ascertained, that the remedy in the case, consists in bleeding properly conducted. The most scrupulous may rely with confidence, that the quantity of forty, even of fifty ounces, will not bring life into danger in the commencement of a fever, where the conditions are such as have been described. It is safe, and it is even frequently advisable to continue it till fainting actually takes place, or till a disposition to faint is strongly felt; for it is under such circumstances, that susceptibility of impression is restored; an end, when effected, which lays the foundation for a speedy and a safe cure. In such case, the application of pure air, the common stimulant of life, is often sufficient for the purpose; at
least the application of others, more powerful and properly managed, renders the process almost certain."

In the other general condition of fever, where the pulse is open and unconfined, or expanding, the heat superficial rather than ardent or pungent, the skin soft, thin, giving an impression of buoyancy or elasticity, the countenance clear, and pains, if they exist, of a sharp nature, flying through different parts, but not connected with sensations of weight and oppression, bleeding is not by any means necessary; but it is not, however, indispensable, and where useful, the quantity to be taken away is limited to a measure not exceeding twenty ounces. For his observations on the use of bleeding in periodic, contagious, and inflammatory fever, we must refer to the work itself.

Bathing.—On this subject, Dr Jackson first quotes a case from Galen, to prove that he understood its use and management; then tells us, that cold bathing was tried by De Hahn, in 1737, at Warsaw, and by Samoilowitz in the plague of 1771. These facts, he allows, did not make any impression; and bathing in fevers was not reckoned among the regular means.
means of regular physicians until very lately. "It has now," says he, "attracted some notice in England,—a notice chiefly due to the popular manner in which the subject has been treated by Dr Currie of Liverpool," although, in fact, it was used by our author in 1774. In this statement, we think Dr Jackson is wrong, in ascribing the impression which Dr Currie's reports made on the minds of medical practitioners, to the popular manner in which they were written, and in omitting to mention Dr Wright, to whose plain narrative we are indebted for Dr Currie's reports; a work which is justly considered as a model of medical investigation, and which carries universal conviction, in consequence of the truly philosophical spirit in which it is written.

We now proceed to our author's theory of the action of bathing. Bathing, says he, like every other power in nature, acts upon the excitability of organism, and produces, more obviously than most others, an effect upon organic movement. It is immediately applied to the surface of the body; it consequently acts upon the surface, and produces effects corresponding with its own power, and the capacities of the part upon which it acts. It is
is a common observation, that excitability is connected with an influence by the operation of heat. Hence an increase of the degree of superficial heat, promoted even by artificial means, presents itself as a cause calculated to insure effect. “Torpor is unfavourable to action of every kind; and torpor, connected with plethora, stagnation in the venous system, and suppression of secretion, is unfavourable to the action of cold bathing. In this case, susceptibility is restored by bleeding. Torpor arises from other causes, and susceptibility is restored by other means, viz. by increasing the heat of the sick apartment when the weather is cold and damp; by frictions of the skin; and particularly by warm bathing. Cold bathing, in its action in the cure of fever, is considered as a stimulating power, producing a new movement, analogous to that produced by the common stimulants of life.”

Dr Jackson then proceeds to apply these opinions to the different modifications of fever; objects, incorrectly we think, to the use of the thermometer in determining the heat of the body; and, lastly, details his mode of using the bath in the following words:

“When
"When the condition of body, under which cold bathing acts with effect, has been prepared by previous bleeding, by emetics, by purges, or by other means, so that congestion in the venous system is removed, and that the pores of the skin are opened; or when congestions in the biliary system, and derangements of the alimentary canal, consequences of the direct action of the morbid cause, have been changed or affected in their conditions; the surface of the body being then warmed by the air of an heated apartment, the skin stimulated by frictions, and animated by warm bathing; in short, when the whole moving powers have been placed upon a ticklish balance, the affusion of cold water upon the naked body, upon the head and shoulders, in the manner of a shower bath, produces a strong effect: it then ordinarily produces its own action, which is analogous to that of health. The effect is indicated, as the act is usually followed, by a full, strong, a free and expanding pulse, frequently by a copious perspiration, by a sound and refreshing sleep, and by a sweet sensation of comfort in all the feelings. It is desirable in conducting this process, that the degree of cold be as near
that of freezing as possible: it is essential that
the water be pure, fresh from the spring or
fountain, and that the affusion be continued,
till marks are evident that an impression is
made upon the circulation. If the effect be
not decidedly attained by the first application,
it will be proper to allow the patient, after
he has been rubbed dry, and covered with a
sheet or blanket, to recline upon a couch for
a few minutes. The process must then be
repeated, so modified and changed in its cir-
cumstances, as may best insure the purpose for
which it was undertaken. It was the author's
custom at one time to dash water upon the
head and shoulders, in large quantity, from
buckets; but as the idea of such drenching is
formidable to most people, and as it is not
certain that any benefit is obtained from the
impression of fear, he now generally prefers
the practice of washing the body with sponges,
which take up a large quantity of water, so
as to imitate a shower bath, continuing the
washing for a length of time sufficient to make
impression. This answers well, where the
degree of cold of the water is under forty de-
grees of Fahrenheit's thermometer: where
above that, the effect is to be attained by the
larger
larger quantity and force of application. It is to the upper parts of the body, the head, shoulders and trunk, that the cold water in this process is principally applied. It was even usual, and it was thought to be useful, to keep the lower parts immersed in warm water, during the cold affusion upon the upper parts. At other times, it was thought better to cause the patient to plunge at once from the warm to the cold bath, remaining immersed a longer or shorter time, according as the circumstances of the case might seem to require; for, as an effect is the object, it is necessary that there be some evidence that the effect is attained, at least put into the proper train for attainment, before the process be discontinued. It is attained with more or less facility, according to the state of the previous condition.

When the process of bathing is finished, the patient is carried to bed. There is no occasion for being scrupulously nice in drying the body. It is even better, where there is much superficial heat, that it be not dried at all. In the opposite circumstances, as it is always grateful, so it is generally useful, to rub the body for some time with hot flannel cloths.
Such practice seems to encourage the feeble beginnings of a salutary movement."

Gestation.—When the disease gets beyond the reach of these powerful remedies, we must seek for other means; and it fortunately happens, that there are still some in store capable of carrying the point some degrees higher. In the list of these we perfectly coincide with the author, that few people will expect to find mention of gestation, that is, the act of transporting sick persons in the open air, in carts, carriages, or other conveyances, exposed to all the chances of weather. The facts which he mentions are worthy of attention.

"In the year 1778, while attached to the late 71st regiment, he suffered a very severe attack of fever at Kingsbridge, in New-York island. The fever continued for seven days, with little intermission. It had just ceased, when he was put into a common conveyance to be carried to New-York. The distance from the place of encampment was fourteen miles; and by the time he arrived at the end of his journey, he was so much invigorated, as to be capable of walking a mile, with less fatigue than he felt in walking twenty paces at the time he left Kingsbridge. This fact did
did not strike at that time with its just impression; but, in the following year, he was again attacked at Ebenezer, in the province of Georgia, in the month of June, with a fever of unusual violence; for all the fevers of that place were violent, and they were dangerous at that season. It was, in short, the caufus of the Greek physicians. It had scarcely any remiffion, though fundamentally of the remitting character: the anxiety was insupportable; the internal heat was great; the pulsation of the descending aorta shook all the neighbouring parts; the pulsation of the artery at the wrist was moderate, perhaps weak; the tongue was parched, with an abhorrence of drink, a singular combination; the sensation of burning was tormenting, without any actual increase of heat on the surface, as measured by a thermometer, or as striking the sensation of others. It was agony to touch any thing of woollen or cotton; there was a desire of what was moist and cool, but nothing cool was to be found; for the thermometer, in the best-shaded part of the house, seldom sunk, during the day, under 96°. With all this distress, there was a total want of sleep, a constant desire to change place.
place and posture. In a disease of this kind, which had now lasted seven days, the author was put into an open vehicle, to be carried to Savannah, a distance of twenty-five miles. The distress and suffering, at the time of departure, were as great as a human body could well bear: at the distance of two miles, they had greatly diminished, and before the end of the journey they were entirely gone. It rained heavily while he was on the road; he had no covering from the rain, and of course got completely drenched; but he found himself able to sit up, to walk without help on his arrival at Savannah; he even had some desire to eat, though for the seven days preceding he had looked at food with abhorrence, and even loathed drink, with a tongue stiff and parched, even scorched to insensibility, from internal heat.

"The advantage in these two instances was signal; but as the fever had actually ceased in the one, and as it had arrived at a critical period in the other, they may not perhaps be considered as perfectly decisive of the case. An effect, which happened the following year, when the 71st regiment removed from the Cheraws, previous to the action at Cambden
Cambden on the 16th of August, is directly in point in all its parts; it may be considered as conclusive evidence of the fact. The position occupied by the 71st regiment at the Cheraws, on the river Pedie, was singularly unhealthy. The disease was of a character similar with that which prevailed at Ebenzer, of the remitting class, but with remissions scarcely perceptible. Two-thirds of the regiment were sick; and of course there were here persons in all stages of disease. The enemy advanced in force, and the 71st was ordered to retire, for it was the advance of the army. Some part of the sick were embarked in boats, in order to be conveyed to Georgetown by water, the country not affording waggons sufficient to carry the whole of those who were unable to march. There were, however, about one hundred and twenty persons belonging to the first battalion, who were transported in open waggons, in the manner stated. They were exposed to dews by night, to a scorching sun by day, and to occasional showers of rain. At the end of the third day they arrived at Lynch's Creek, about half way between the Cheraws and Cambden. The regiment was ordered to
to halt, and to occupy a position. The sick, during the march, had little opportunity of taking medicine, yet no one had died; some had got entirely well; and in others, indeed in all, where the disease had not yet ceased, the form was changed to that of distinct intermittent. Instances similar, though not in the same extent, occurred on different occasions during the following campaigns in America: they even occurred in the late war on the Continent, in the campaign of the year 1794, and beginning of the year 1795. It was here noticed by many, who had no previous knowledge of the fact, that persons, ill of fevers, recovered more rapidly under actual transport from one station to another, than when they remained stationary in hospitals; though in the one case they had probably little help from medicine, or little extra refreshment, and in the other were abundantly supplied with the comforts of nourishment, and with necessary drugs. Similar benefits with those observed on the Continent in the years 1794 and 1795 have occurred, it is presumed, in every other country where necessity or chance have occasioned a similar trial. In several instances, the act of travel-
ling seemed decidedly to arrest the progress of death; and in numberless instances it accelerated recovery, beyond all calculation of recovery from the effect of common means. The credit of the remedy does not rest upon the result of a few solitary instances. It has been tried, or rather witnessed in multitudes, and, under similar circumstances, uniformly with similar effects: the effects, therefore, are undoubted, and their value is capable of being precisely ascertained." The other means mentioned by our author are Peruvian bark, wine, opium, blisters and mercury; and some observations on the very interesting subjects of relapse and convalescence, conclude this work, which, notwithstanding the novelty and obscurity of its theory, and the boldness and danger of its practice, is worthy of perusal.