# CHAMBERS'S EDUCATIONAL COURSE.

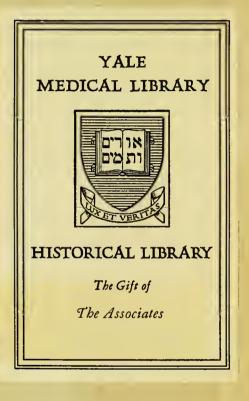
RJ 61 845 B

# INFANT TREATMENT

13

and the second secon

and a start of the second start and a second start start and a start of a start start and a start start and a s



Ar Philps Recept for Sysenter I Fathe epor starch , in a cut. of water, blood heat, in which ater 10 drops landamen Til Starch is completely dess-local, First infect wearly a gt of hered water with the howeld, when this is expelled infect the above myture. This is beifield at take. Heted, with perfect satisfaction The following represent the best meats for children in the order of their digestibility: Cold mutton, mutton chops, roast beef, rabbit meat and chicken. Yeal, pork, turkey, goose and duck should be excluded from the chli-dren's, bill of fare.—Popular Health Magazine. 25,600 M. I.d.

## CHAMBERS'S EDUCATIONAL COURSE—EDITED BY W. AND R. CHAMBERS.

# INFANT TREATMENT,

## UNDER TWO YEARS OF AGE.

ADDRESSED TO MOTHERS AND NURSES.



# EDINBURGH: PUBLISHED BY WILLIAM AND ROBERT CHAMBERS. 1845.

EDINBURGH ;

PRINTED BY W. AND R. CHAMBERS.

## EDITORS' PREFACE.

In education—considered in its largest sense as the means of developing the human facultics to the utmost extent, and regulating them to the best purposes—a place of great importance must be assigned to that branch which regards the constitution of the human being at the first, and the treatment of it in those early years, or rather months, when it is most delicate, and most liable to be affected for good or evil. Then is physical education properly commenced, and upon the treatment in those years depends much of the success which is afterwards to be striven for in education not only physical, but intellectual and moral.

The Editors of the Educational Course were, at the outset of their undertaking, very highly sensible of the truths here expressed, and they were most anxious that any work upon the management of infants, coming forth under their care, should be prepared on principles thoroughly philosophical, at the same time that it was composed in such a manner that every intelligent mother in the country might be able to take advantage of it. They therefore confided the task of composing the work to Mrs Barwell of Norwich, a lady who unites to practical experience a thorough knowledge of, and reliance upon, the more enlightened modern doctrines respecting the treatment of infants, together with the requisite degree of literary skill. The result is the present volume, which the editors submit to the world in the confident hope that it will be found to contain a complete code of instruction for the mothers and nurses of young infants, expressed in the most direct language which the nature of the subject admits of.

In addition, there is given a Summary of the leading doctrines or directions, expressed in such brief and pithy terms as might, without any great difficulty, be committed to memory, but with the wish that the reader should, in all cases, read and digest the corresponding passages of the work itself, so that the understanding may be thoroughly satisfied, before any one shall begin to act upon the rules.

EDINBURGH, August 27, 1840.

# CONTENTS.

SECTION FIRST.	Page
The Infant before and immediately after Birth	5

#### SECTION SECOND.

Food -					10
Sleep			-	-	29
Clothing	-	-			31
Washing and Dressing	-				40
Ventilation -					44
Vaccination					47
Deformities and Distortions					50
Stammering					61
Squinting					65
Teething					69
Exercise					72
Exercise					

#### SECTION THIRD.

Moral Government Earliest Intellectual Education								79 100
SUMMARY	-		-	-			-	111

.

.

1

# INFANT TREATMENT,

### UNDER TWO YEARS OF AGE.

## SECTION I.

#### THE INFANT BEFORE AND IMMEDIATELY AFTER BIRTH.

THE first and most important truth, on this subject, to be impressed on mothers, is, *That the constitution of their* offspring depends on natural circumstances, many of which are under their own control.

A child takes its general character from its parents. If these be healthy persons, the child will also, in all probability, be healthy, provided that no deranging circumstance shall take place before the birth of the infant. If, on the contrary, the parents are unhealthy, the child will also probably be unhealthy. These principles apply to the mental part of our organisation, as well as to all the rest.

Supposing healthy parents, still the infant may prove very much the reverse, if the condition and circumstances of the mother during pregnancy be not favourable. It therefore becomes important to inquire, what is the condition, and what are the circumstances, of the mother, during pregnancy, which are calculated to affect her progeny for good or evil?

The maintenance of her own health during this period is of the first importance, as even a woman usually healthy may be in such a deranged state during pregnancy, as will operate greatly to the detriment of the infant. For the maintenance of health in ordinary circumstances, few people have any other guide than experience and their own share of good sense; and these are guides not to be despised. It is to be wished, however, that all whose circumstanees will allow of it, should study the organisation and functions of the human frame, as, without that knowledge, there can be no certain or consistent attention to the rules of health, while, with it, attention to those rules becomes comparatively simple. For such as may be anxious for this knowledge, and have no better means of obtaining it, we would recommend the perusal of the treatise on Animal Physiology in the present Educational Course, or, as still better, if suffieient leisure can be commanded, the works of Dr Andrew Combe\* and Dr Southwood Smith.+

A young pregnant woman, finding herself perhaps for the first time in her life called upon to pay particular attention to the laws of health, will probably experience some difficulty in subjecting herself to the guidance of those laws, because she has habits to overcome, and perhaps some pleasures to forego; but she will have the aid and stimulus of maternal love, which, from the moment she becomes conscious she is to be a mother, mysteriously but powerfully possesses her. This instinctive affection leads to good or to evil, according as the mind is informed or ignorant of the conditions which govern the health of the parent and child during pregnancy. If informed, the mental and physical powers are directed aright; if ignorant, the nervous sensibility prompts to a state of undefined fears, while physical evils are produced or increased by mistaken treatment.

In the present place, as we are writing an educational, not a medical treatise, it is not to be expected that we are to give a minute exposition of the state of pregnancy.

+ The Philosophy of Health.

Wc will confine ourselves chiefly to those circumstances which bear more particularly on the constitution of the child.

That a female in this condition should maintain a serene mind, is above all things desirable. And for this end, it is in the very first place necessary that she should be taught to regard her condition in its true light, as one perfectly natural, and for which all fitting arrangements have been made by nature. The sickness, nausca, and disordered condition of stomach, which often attend pregnancy, and also the anticipation of the pains of labour, are apt to impress a different feeling. But with all such impressions, a right-minded woman will successfully contend, if she be truly informed on the subject. So far from pregnancy being a diseased condition of the system, it is one in which pre-existing disease is often overcome, at least temporarily (though the contrary is also sometimes the case), and during which epidemics are often resisted, when other persons not more susceptible fall before them. Nature, indeed, seems to have aimed at making the system unusually strong at this period, as if to favour as much as possible an object so important as the increase of the numbers of the species.

Nausea is most frequently experienced by women of a nervous and excitable temperament, or of what are called "strong feelings," and by those more particularly who have little to occupy them. Those, also, who proceed upon the vulgar error of eating heartily, "in order to keep up their strength," are peculiarly liable to this distressing visitation. There is, however, a certain tendency to it in many cases, merely as a result of that increased excitement of the womb, which unavoidably takes place during pregnancy, in consequence of that organ requiring and receiving more blood at that period than at other times. In all cases, nausea may be regarded as a means provided by nature for keeping down the quantity of circulating fluids at a proper amount, and thereby preventing a fullness which might, in such circumstances, have fatal effects.

With respect to labour itself, an intelligent woman will find no difficulty, we think, in regarding it under the following considerations :- It certainly is a process which, unless in very extraordinary circumstances, cannot take place without considerable pain. Some, we are aware, believe the reverse. They allege, that, if the females of the human race were to live in a perfectly natural manncr, there would be no pain or difficulty in labour. That there should be any natural process from which pain is inseparable, seems also to them a kind of impeachment of divine wisdom. We believe, nevertheless, that pain, in some measure, greater or less, is scarcely avoidable in the labour of almost any female creature, and that to acknowledge such being the case is no detraction from Almighty goodness. In the parts concerned in labour, two objects must necessarily have been in view-first, that that portion of the bony and muscular structure should possess the same firmness as the rest of the body; and, second, that it should also be capable of an occasional distension, to admit of the birth of a new being. How to give this power of occasional distension, without diminishing the necessary firmness of structure, was the point to be attained. The end certainly might have been accomplished by some peculiar natural provision; but in nature there is an economy of means generally apparent. Instead of any departure from the rules which govern all organic nature, it has been seen fit to preserve those rules in their ordinary force on this point, and, as a simple and easy alternative, to subject the being to a eertain pain-for the endurance of which, however, other and most wonderful arrangements have been made, in the peculiar feature of its intermission, and in that power of suffering which females seem to possess in a greater degree than males, no doubt through some peculiarity of the nervous system.

Contemplated under such considerations, the pain of labour will be looked forward to, we think, with firmness, and without alarm. It will be regarded *only as pain* a pain imposed with a design, upon the whole, beneficent -short in duration, and which there is much to alleviate-which, moreover, in the effect which it seems to have of the more endearing the infant which has been its innocent and unconscious cause, fully repays itself in the tenderest of feelings.

For the preservation of serenity of mind, an exemption from the severer cares of life is also desirable. In many cases this may be difficult of attainment ; but it is nevertheless a point of so great importance, that every reasonable exertion and sacrifice should be made, in order to bring it about. We do not mean that a pregnant female should be set aside from ordinary duties, or that she should be allowed to spend her time in thoughtless languor. only demand that she should be subjected to no treatment which will give her great excitement. Anxiety about the illness of a near relative-gricf for his loss-the pain of severe worldly calamity-torment from the misconduct of individuals in whom she is interested-sudden frights, or excesses of joy-finally, those rarer distresses which a time of public danger occasions-such arc the circumstances which are apt to have a bad effect on females about to become mothers. They also, as a necessary consequence, affect the being about to be brought into the world, producing in some instances a general weakness of constitution, in others only a certain damage of the mental organisation. Many of the eccentricities which have caused the world most to wonder, or worked it the greatest woes, have been the consequence of very simple circumstances visiting pregnant females with undue excitement.

The diet of females during this period ought to be simple. When unenlightened on this subject, they are apt to fall into errors which may greatly affect their offspring. A pampering, indolent, and generally sclf-indulgent mode of life, is often practised; and many think it necessary that every casual desire that can arise in an unregulated mind ought to be gratified. A sensible woman, sincerely anxious for the good of the being about to enter the world, will be anxious to avoid such errors.

The tendency to nausea and vomiting, already alluded to, may be interpreted as the voice of nature proclaiming that, in the condition of pregnancy, less instead of more food than usual is required. The perfection of the child does not depend immediately on the quantity of nutriment taken by the mother; it depends on the supply of sound and healthy fluids, for which end, not merely judicious nutriment, but a healthy action of the whole of the functions of the body, is requisite. Overeating, or eating too nicely, is inconsistent with that healthy action, and is therefore to be avoided. Food too highly concentrated, and of too stimulating a character, is unsuitable, as also are gruel and weak broths, for these are not easy of digestion. The mother ought not to depart from her accustomed diet, whatever that may be, provided experience has shown that it is suitable for her constitution and habits of life. Animal food is not to be systematically avoided. Where the digestion is weak, the circulation languid, and the museular frame small, flaceid, and puny, this kind of food, of a tender fibre, taken in small quantities at a time, and well masticated, will lighten present suffering and prevent future evil. The total want of this kind of food, which is often scarcely a matter of choice amongst the poor, tends to make the milk weak and of bad quality. Farinaceous and vegetable food, with a moderate portion of animal food, and of diluting fluids, may be generally recommended. Stimulating liquors are beneficial in very few instances. We present all of these maxims on diet with some degree of hesitation, for almost every particular ease requires a treatment more or less peculiar to itself. For perfect safety, the advice of a judicious physician, and if possible one acquainted with the system of the patient, is desirable.

Regular and gentle exercise should be taken every day, in the open air if possible. This is one of the principal requisites for keeping up that healthy action of the system, on which the supply of sound fluids depends. When the mother pursues a contrary course, whether from indolence or from positive inability of body, her system necessarily becomes much relaxed; its tone is abated, and the child partakes of the same character. Regard must of course be paid to peculiarities in the general condition of the mother. If she be very weak, it may be injurious for her to take much exercise, or to begin to take it abruptly; but still the great importance of exercise to her health and that of her child should be kept in view, and, if at all practicable or prudent, exercise should be indulged in. With the healthy, it is a duty which they will not with impunity neglect. It should be practised from the first, and up to the very last. As one great inducement to it, they may be assured that, by restricting an unduc and undesirable growth of the child, it tends materially to lessen their distresses at a particularly trying moment.

The ordinary occupations of life should be as little as possible interrupted. It may be necessary, from the condition of the expectant mother, that she should be kept very quiet : it often, indeed, happens that, from particular circumstances, females are enjoined by their medical attendants to lie almost continually on a sofa. But these are unfortunate cases. Where there is a fair measure of health, to have both mind and body cmployed is decidedly uscful; and a female should be glad when it is in her power to enjoy this advantage. Severe bodily labour is of course to be avoided, as too trying to the system, and apt to produce accidents; and great mental tasks are equally undesirable, as tending to create too much excitement. But the every-day matters of life, the domestic arrangements which make home respectable and attractive, the benevolent and affectionate sentiments exercised in kindness and service towards others, the charity which acts rather than gives, the daily walk enlivened by conversation or observation, the cultivation of the intellect by reading, the preparations for the maternal office-all these are suitable means of keeping mind and body in that state of moderate activity which is required, and such are ever at command. This moderate occupation is useful in two ways. It tends to sustain that cheerfulness and serenity of mind which have already been spoken of as so desirable during pregnancy. It is also useful as a means of keeping off and counteracting a certain tendency to nervous excitement which is sometimes experienced by pregnant females, and which manifests itself in irritability and impatience, despondency, and listless indifference. When such excitement is first felt approaching, it should be met by a vigorous determination not to yield to it; and active employments will then be found extremely serviceable. Females often act otherwise, and, under the notion that, such nervous excitement being natural, it ought to be patiently submitted to, they resign themselves to it, and expect that others should treat it with charitable indulgence. But, in reality, it may be successfully contended with in most instances, and it is the duty of every one thus to contend with it.

It may here be remarked, that, minds being constituted differently, all do not find that the same dutics and objects serve equally well for sustaining their cheerfulness and keeping off the tendency to nervous excitement. The exercise which is beneficial to one, may be irksome to another; but the main object in all cases is the same, though reached by different paths. Worldly circumstances also are various; it is therefore impossible to lay down rules for the employment of mind and body: it is easier to point out what is to be avoided; namely, excess, whether it regards case or excreise, food or sleep, and the frequenting places of public resort, and close private apartments where the air is heated and vitiated. In every situation of life there are trials of temper, alternations of hope and fear, joy and sorrow, pleasure and displeasure: to regulate these emotions, to restrain them within such bounds that they shall neither over-excite nor exhaust the nervous energy, nor interrupt the healthy action of the bodily functions, is within the power of every human being, and is a discipline agreeing equally with the precepts of the moralist and the pre-scriptions of the physician.

As yet, we have only considered those circumstances which affect the human being before birth: we are now to treat of those which conduce to his weal after he has entered the world.

The child should be placed at the breast within from twelve to eighteen hours after birth. When this is delayed longer, the breasts are apt to be distended with milk, and the act of suckling is then attended with pain and difficulty. In such circumstances, the overloaded vessels being imperfectly emptied, inflammation is excited, and milk abscess may ensue. The milk left too long in the breast, if afterwards sucked, occasions pain and disordered bowels to the infant, or is rejected from its stomach. In the latter event, the nourishment is insufficient, and results seriously affecting the permanent health of the child may be experienced. It occasionally happens that the flow of milk in the first few days is greater than the child can take. If it do not flow away, fomentations of warm water may be applied, which is a better remedy than rubbing the breasts with spirits; for they are rendered so tender by distension, that they casily bruise. When the abundance of milk is troublesome, the mother should drink little, and take opening medicine.

On recovering from confinement, and resuming her usual dress, there cannot be too much caution in securing perfect liberty for the breasts. The waist of the dress should be loose and long. The low stooping position in which a woman sits while suckling, encourages an enlargement of the abdomen, if not guarded against; and injury to the figure, and untidy appearance, have been urged as reasons why mothers should not also he nurses. Such consequences are by no means necessary. The dress may be as neatly arranged as at other times, and the figure has only to be protected, and such exercise taken as will keep down the tendency to enlargement of the abdomen. There can be no other permanent increase unfavourable to beauty or utility. It sometimes happens that the nipple is small, or turned into the breast;\* a new-born infant has scarcely

<sup>\*</sup> There is great reason to believe that the use of tight stays creates or increases this deformity. Artificial restraints are the cause of many of the sufferings of child-bearing. The malformation of the

sufficient strength to draw it: in such cases it saves much pain to bave the breast drawn by another child of about six or eight weeks old. The mechanical means often adopted are very apt to cause sore breasts. It is, however, desirable that the infant should get the first milk, as this has the effect of clearing the bowels of the meconium, or first evacuations, and generally supersedes the necessity of a purgative. A young mother is generally awkward in holding an infant; but a little fortitude and perseverance will overcome the difficulty.

Where there is a decided inability to suckle (which may usually be decided before delivery), and a wet-nurse is to be engaged, there are two or three points requiring attention. The nurse should be as nearly as possible of the same age as the mother, because there is a relation between the constitution of a mother and her newly born babe, and, the more nearly the bired nurse resembles the mother in constitutional peculiarities, the more suitable will she be for rearing that particular child. A hired nurse should also have been confined about the same time as the mother, because the milk has a different character at different stages of nursing, being thin at first, and gradually growing stronger, so that, if a newly born babe be put to the milk of a woman any considerable time confined, it gets too strong or heavy milk, and is thereby sensibly injured.

The diet of a person engaged in nursing should be nutritious, but not heavy. What agrees and disagrees in ordinary circumstances, will then have the same effect. Diet must also have reference to constitution. A person of full robust habit will require less nutriment, and will suckle better upon diluting drinks, such as tea, toast and water, gruel, &e., while a delicate person of languid circulation will need more animal food, milk, beer, perhaps

nipples is alluded to by an old writer, who ascribes its prevalence in his day to the use of the leather stays of the period. In all circumstances, these tender organs should be guarded against pressure; and during pregnancy, when the breasts often enlarge, the stays, however soft and loose, should have an opening in the centre of each side of the bosom. ale or porter: wine is not so desirable; it is stimulating rather than nutritious; though, mixed with water, it may in some cases agree better than beer. The poor generally have a good supply of milk, and suckle for many months; tea is their chief beverage. It is true their infants are often fretful; but this is to be attributed to the indulgence of violent passions on the part of the mother, so often found among the ignorant, to exposure to cold, and deficiency of cleanliness and ventilation, rather than to the vitiation of the milk from low living.

The quality of the milk chiefly depends upon habits of mind and body; the quantity varies in different persons, in correspondence with age, constitution, &c. In some constitutions, the food goes more into nourishment, and less into milk, than in others. In those cases, the less food is required. In other constitutions, the aliment goes more into milk, and less into nourishment; and a woman so characterised requires to be comparatively well fed. It is necessary for a nurse who has a tendency to flatulency, to avoid viands apt to induce that ailment, not only on her own account, but that of her charge, for this and other disordered functions tell upon an infant immediately, through the medium of the milk. Where a nurse is actually affected by flatulency, her taking a little powdercd ginger or carbonate of soda makes her milk agree better with the digestive powers of the child.

A mother who is also a nurse, has a double claim upon her, and a double motive to stimulate her in the obscrvance of the laws which govern health. The immediate welfare of herself is indissolubly united with that of her child; every transgression on her part inflicts suffering on her infant, who is the helpless victim of her errors. And not only so: unhealthy ailing children bring great afflictions upon a family. In the case of affluent persons, they bring disappointed hopes, wounded pride, and sorrowing affections. A father is naturally disposed to regard his offspring with pride, exultation, and hope; but can he do this when he sees ailing, fretful beings, incapable of enjoying or benefiting by the advantages which his abundance and his affection procure? In the case of poor people, the sorrowing affections are aggravated by the expense, the household discomfort entailed by illness, and the prospect of the sickly creatures around being hereafter incapable of carning their maintenance at all, or of doing so under the pressure of bodily and mental suffering. The faults of the mother may inflict these disappointments and difficultics upon the father. Her responsibilities are great and numerous. Yet there fortunately is a present happiness connected with the maternal duty, arising out of mere instinct, which lightens the burden, besides a continual and increasing reward springing from and experienced by the higher sentiments of her nature.

### SECTION II.

#### FOOD.

THE milk of the mother is to be regarded as the most appropriate food which can be given to a newly born infant. Where a mother, therefore, has a sufficiency of milk, and is otherwise able to perform the duty, she is called upon by the voice of nature to undertake it. It is a duty which may be attended with some degree of inconvenience; but this is amply compensated in the delightful feelings which are developed in the course of the nursing period, and the consciousness of performing a duty of the greatest importance to one in whom she feels the deepest interest.\*

\* The performance of this duty by the mother is of consequence to the moral as well as physical condition of the child. A hired person cannot be expected to feel like a parent; she has not the motives for subduing her passions, restraining her appetites, sacrificing her pleasures and her rest—in short, for practising the selfdevotion and self-control which the office of a nuse demands. No

When the mother is unable to nurse, the next best course is to engage a substitute, selecting one as healthy, as near in age to the mother, and as nearly the same time confined, as may be obtained. It should be regarded as a sacred duty by parents to provide a wet-nurse, if their circumstances will at all permit, for by no other means can they be tolerably assured of the welfare of their child. In the next alternative of bringing up a child by the hand, or giving it cows' milk and soft food, there is danger of much physical evil. The truth is, no kind of food but the mother's milk, or that of a well-chosen nurse, assimilates with the digestive organs of an infant in the first few months of its existence. The cvil of the mere unsuitableness of other food is aggravated when it chances that too much is given. While a superabundance of milk produces no harm, from its so easily being discharged from the stomaeb, food cannot be got up without straining, and without irritating the stomach. Children that are dry-nursed vomit less frequently than those who are suckled; but this is no proof that the food agrees: digestion is difficult, the superabundant food ferments, becomes very acid, passes into the bowels in an improper state, irritates the mucous membrane, and oceasions the loose, green, sour-smelling stools, indicative of what is termed gripes. It is a common practice to give an infant a purgative a few hours after its birth, and to feed it until the mother

doubt, many such persons are found to perform their duties with an honourable zeal and fidelity; but it may happen otherwise, and the employment of any other than the mother should at the best be regarded as a step involving considerable danger, and only therefore to be taken under the pressure of necessity. A child is suckled sufficiently long for its mental powers to begin to act: it observes and imitates; its nurse awakens it earliest emotions, attaches its first affections: tendemess, gentleness, and propriety, should therefore characterise every action. When the mother is the nurse, these qualities distinguish her caresses and her attentions: the performance of the one office naturally entails the fulfilment of many others : there will be a more complete superintendence of the infant's condition, of the earliest symptoms of indisposition, of its cleanliness, its prowth and form, the progress of its perceptions, and the early manifestations of temper. Such minute attentions require an intelligence and interest searcely to be expected from the hired nurse. has milk for it. Both these practices are contrary to nature; the first milk causes a free natural discharge from the bowels very different from the effect of medicine, which irritates and enfeebles the alimentary canal, establishing disorders which carry off a delicate child, and cause a robust one much suffering. Whether an infant be wet or dry nursed, its stomach should be left at rest for several hours after birth : if there be crying and uneasiness, they are likely to arise from other causes besides hunger. The sudden change of situation, exposure to air, the dress with which it is necessarily encumbered, and the manner in which it is handled, are sufficient to account for uncasiness. Warmth, quict, and repose, afford ample solacement for the first few hours of life.

When there is unusual delay in the flow of the mother's milk, or a difficulty in getting the child to suck, a small quantity of asses' or diluted cows' milk will save the infant from exhaustion; but on no account should farinaceous food (that is, food composed of any kind of flour from grain), be given. The greatest safety will be found in the breast : there are few situations where it would not be possible to find a mother willing and able to suckle the new-born infant until its natural food is ready. That fluid is the proper aliment for an infant, is shown by its having no teeth, and by the muscles of the mouth and jaws being too feeble for mastication, while the structure of the whole frame is lymphatic, incapable of voluntary motion, and casily excited. If a child is to be brought up by the hand, cows' milk skimmed, or diluted one-third with boiled water, and slightly sweetened, is the only nourishment that can be safely taken, unless asses' or goats' milk ean be procured, these being more nearly allied to the milk of a woman. When we depart from the intentions of nature, we always encounter difficultics. With some children, cows' milk will not agree at all, or only when mixed with oatmeal gruel; sometimes the latter alone suits best. Again, in cases of relaxed bowcls (a common disorder with dry-nursed children), isinglass, highly baked flour, or arrow-root, mixed very thin with milk, are the best diets :

occasionally weak animal broths are most suitable. All irregularities arc better counteracted by diet than by medicine. The application of a flannel bandage to the lower part of the body is judicious in bowel complaints. A warm-bath sootbes irritation and allays pain. The state of the bowels indicates the condition of the digestion. Green, watery, slimy, or sour-smelling motions, are had, as are streaky dark stools. Two or three motions in twenty-four bours are sufficient; less may be enough where there is no pain or symptom of disorder. Cold produces relaxation. The use of the warm-bath is in t most cases bighly beneficial. The facility with which it is prepared for an infant, renders it an easy remedy; a wasbing-tub, and a pailful of boiling water, will be sufficient when lowered to 96 or 98 degrees Fabrenheit's thermometer. There are few disorders which a bath will not alleviate. There is an opinion that it exhausts. Like all other things, its use requires discretion. A very young infant should not remain in it more than six or eight minutes, and it should not go in daily. The bead and loins should be supported by the hands of the nurse, so that the whole person may be at ease and entirely immersed, except the head and face : when very young, an infant is rarely alarmed by the water; but when there is intelligence, fear is often felt. A little ingenuity in floating paper boats, corks, &c., amuses and diverts apprchension; and after a few trials, the bath becomes agreeable.

For the first five or six weeks at least, the mother is usually able to support ber infant from her breast, and it will be desirable to continue to do so for three or four months. Food is sometimes required before that time; but the rule is, that children for the first three months are better suckled. At that period, skimmed cows' milk may be given safely, when the natural food is not sufficiently abundant. The suckling pot or bottle is the best means of feeding, for sucking exercises the muscles of the mouth and jaws, and promotes the flow of the saliva, and that admixture of it with the food which is necessary to digestion; while

an infant feeding from the spoon only swallows. The form of the suckling vessel permits but a small quantity to enter the stomach at a time, and thus another necessary law is obeyed. Sucking is attended with healthy exertion and consequent fatigue, and is one of the few means of exercise intended for young infants. Care and eleanliness are important in using these bottles. The sponge or leather soon gets sour and hard, and it is then distressing to the mouth. After six months, a gradual approach to solid diet may be made by a slight addition of farinaceous food in the form of boiled or baked flour, arrow-root, ground rice mixed very thin and smooth, bread or hard biseuits soaked or boiled, the water poured away, and the sop beaten till it is wholly free from lumps, when it may be mixed with milk till it is very thin and smooth, and slightly sweetened. Sugar often turns aeid, and should be used sparingly. The first change of food sometimes disorders the system. Two or three days should be allowed for the experiment, and, if the diet does not agree, some other form of farinaceous food may be tried as likely to prove more suitable. Should all be found equally improper, weak chicken, veal, or ealf's-foot broth, beef-tea freed from fat, and thickened with soft boiled rice or arrow-root, may be tried. The great point is to begin by slow degrees, giving a small quantity of the thickened food once in the twenty-four hours, and that in the forenoon, in order that its effects may be observed, and the night's rest remain undisturbed. Food should always be given about the warmth of the milk as it comes from the breast; when too hot, it weakens digestion, and is distressing to the child; and if too cold, it does not digest so quickly.

When infants are fed by the spoon, it is not unusual for the nurse to ascertain the warmth, by putting every spoonful to her own mouth, a habit equally disagreeable and unnecessary. After feeding, the child should be raised up, when it will more easily get rid of the air which is generally introduced into the stomach during eating. Where there is much disposition to flatulency, an infant should be carefully watched, the accumulation of air occasioning what are called stoppages. If these occur in sleep, they may prove fatal to life, and even when the child is awake they are dangerous, as when affected by them it cannot cry out, and its breath is for the time stopped. The practice of giving caraway-seeds, aniseed, carminatives, or distilled waters of any kind, is decidedly pernicious. They irritate the coats of the stomach, and, though they may give temporary rehef, they create future evil. They are frequently put into the food to make it sit easy on the stomach ; but when food does not sit easy, we may presume that it is of an impro-per kind, or given in too large quantities at a time, or too often. If medicine is at any time required, it should be given as medicine, and not with the food. It cannot be too strongly urged, that as the disorders (there is a distinct difference between disorders and diseases) proceed from some mismanagement, they cannot be permanently removed by medicine, but only by the adoption of good management. Continual recourse to medicine weakens and irritates the powers of the adult; the effect upon the tender excitable organs and soft frame of infancy is even more destructive of health.

Over-feeding and improper diet are the main causes of the ailments of children. During the first few weeks of life, infants endure none but physical evils; they are exempt from anxieties, from disappointments, from hopes and fears; but unfortunately their sorrows, pains, or anger, are always traced to hunger, and cating is adopted as the universal panacea. This goes on till the child is of an age to comprehend and believe that to eat and drink is the greatest happiness and the greatest good. There is no doubt that the easiest method of stopping crying is to stop the mouth, especially where the senses are not active enough to find pleasure from observation. The means of rehef are then necessarily limited; yet change of position, loosening the dress, giving the legs and thighs entire liberty, chafing them, gentle exercise by the nurse moving her knees from side to side while the child lies across them, or walking about the room, and pressing it to the bosom, are all of them expedients which may be easily resorted to, and which often have the desired effect. Rough jolting and patting on the back provoke rather than allay pain.

It is difficult to lay down rules for the regulation of an infant's appetite, since this depends upon rapidity of digestion, which differs in different children. In two months the mother may pretty nearly ascertain how often her infant requires the breast, and it will greatly advance her own convenience and the child's comfort if something like regularity be established. Habit very soon asserts its influence-so soon, and so imperceptibly, that it is desirable to be governed by its power as soon as the mother is convalescent. If a child be brought up wholly at the breast, the mother must not be absent at the hour she will probably be wanted ; for a erving hungry child offers a great temptation to a servant to quiet it by food. Every three hours is the average number of times a child from two to four months old requires to suck. A good sleeper may, during the night, rest as long as six hours together; but regularity may be attained by night as well as by day. Suppose an infant to wake at seven in the morning and to suck ; after washing and dressing, it will take another meal and a long sleep, bringing it to noon, when it is again refreshed, and, if the weather be warm, carried abroad; sleep usually follows upon going into the air, and three o'clock may have arrived before it again requires the breast. From this time until undressed for the night, it should not be lulled to sleep; but if the ehild be much inclined for repose, it should not be prevented. It is desirable to give a child the habit of sleeping throughout the night. At six, preparations are made for bed; the undressing and washing produce a certain fatigue, and, when the child has again sucked, it will probably fall asleep, and remain in that condition four hours. It is a good plan to accustom an infant to suck just before the mother goes to bed, and this it will do, even if asleep. Its linen should then be changed, and if it wake up, allowing it to stretch its limbs before the fire, rubbing its loins, thighs, legs, and feet, give exercise and refreshment, and prepare for another long sleep. Between this and seven, it will wake once or twice again, and require nourishment.

As the power of observation increases, and muscular strength induces exercise, an infant sleeps less by day, and more by night; it requires the breast less frequently, and takes more at a time, the digestive powers being more active, and all the functions stronger. If a child feeds as well as sucks, there should be a regular time for both. The time of waking in the morning, and the middle of the day, are perhaps the most favourable periods, the stomach being then comparatively empty, and the digestive power brisk. Mothers may in these cases make arrangements suited to their convenience, without prejudice to the infant. Two circumstances govern the progress to solid and animal food—the appearance of the teeth, and the growth of muscular power. Mastication and exercise are necessary when strong nourishment is presented to the system. Medical men are of opinion that the time of weaning should be regulated by the appearance of the teeth ; but in different children this period varies consi-derably. In the same family, one child has been known to cut teeth before five months, another not till after a year. There may be circumstances rendering it desirable to wean, even if the teeth have not appeared. The health of the child, and the season (winter is a time of difficulty), will be considerations. The mother's health should also be taken into account. If the child be strong, and the mother weak, weaning becomes unavoidable; but if all goes well on both sides, the child should have every advantage, and not be weaned upon the principle that six, eight, or ten months, are long enough, but for some good and sufficient reason connected with the circumstances of the mother. If her infant be strong and healthy, and likely, after seven or eight months, to thrive equally well upon food, and if the office of a nurse prevents the mother from giving the necessary care to

equally important duties, she will he justified in weaning. Under any circumstances, the general principle must be kept in view, that the health of an infant depends mainly upon the nature of its diet; and if there he any reason to think that the loss of the breast will he attended with risk, the mother will gain nothing in time or diminution of care by weaning.

It is advised to avoid weaning in severe weather, and to do it gradually, giving the breast less frequently, and discontinuing it at night. The digestion thus gets accustomed to the ehange, and the temper is less tried : the milk diminishes in quantity, and the mother suffers less inconvenience. Another advantage of a gradual eessation is, that, should the infant lose its health, suckling may be resumed. Weaning has been considered a great trial to mother and child. The latter suffers when the privation is sudden and unprepared; but when it is gradual, the infant healthy, and the food agreeable, it will soon eease to eare for the breast. The mother naturally regrets to relinquish so tender an office, and her feelings are the more distressed when she finds that she eannot even he in the presence of her infant without giving it additional pain. But it will be well that, at this time, she keeps out of its sight, if she be perfectly satisfied as to the trust-worthiness of those to whom she commits it. If she eannot rely upon another for attentive and rational nursing, her child had better be tantalised by the sight of her, than neglected or mismanaged. For herself, she will take some eooling purgative, and refrain from fluids and stimulating diet. The following application to the hreasts will assist in drying up the milk:-Three ounces compound soap liniment, three drachms laudanum, one drachm camphor liniment; or if this be too irritating, fomentations of warm water, or poppy heads and camomile flowers boiled together in water, give great relief. Pressure or tightness occasioned by the dress must be carefully guarded against. The distension of the milk vessels occasions great irritation and tenderness; a slight blow, pressure, or roughness in rubbing them, may produce an abscess. It is better to get rid of the milk by its natural absorption into the system, than to draw it artificially; for the latter method keeps up the action of the vessels. Exposure to cold is dangerous, the system being in an excited state.

The diet of a child after weaning must be regulated by the strength of the digestive powers, by the teeth, and by the muscular condition of the child. Upon the principle that diet should assimilate with the powers of the system, the gradual change from the soft lymphatic forms of infancy to the firmer condition of childhood, dictates a gradual change in the aliment. If a child thrives on farinaceous food, milk, and light broth, there can be no need of change. Something depends upon growth : there are children whose rapid increase of stature, and incessant activity, produce a waste which calls not only for frequent supplies of food, but also for food of a more nourishing quality. With such, animal food once a-day (always supposing the teeth are in a condition to masticate it), and even mild table-beer, may be necessary; but if a high degree of excitability, a violent temper, and impatience, prevail, nourishing food must be given with discrimination: the mother will ascertain whether these qualities are increased or diminished thereby, and regulate the diet accordingly. A lymphatic, fat, white-looking child, whose mind and temper are sluggish and indifferent, should not be fed wholly upon fluid or soft diet; more concentrated food will probably correct the temperament. In all cases, the state of the bowels, of the skin, and the temper, will indicate whether the food nourishes too much or too little. Fat is no positive criterion of health; a very active child, after three years of age, is rarely very fat, but the muscles may nevertheless be large; their size, compared with that of the bones, and with the age and growth, determines whether the child be properly nourished. Emaciation is a certain indication of imperfect nutrition - a consequence of over-feeding as much as under-feeding: if the digestion be overtasked by quantity or quality, the chyle is vitiated, and nutrition insufficient, while, if the supply is not in proportion to waste and growth, there is a deficiency in the formation of all the tissues, the bones remain soft, the muscles flaccid and shrunken, the skin covered with cruptions, the nerves weak, yet so excitable that all impressions are painful, and a constant fretfulness or moping inactivity prevails. It has been ascertained that scrofula and consumption are produced both by over-feeding and want of sufficient nutriment.

A soft, clear, pliant skin, accompanies a healthy action of its functions. It is not transparent in all cases, because complexion makes a difference both in colour and thickness. Its condition is better ascertained by its texture than by its hue. A dry, harsh, scurfy skin, indicates something wrong in the alimentary canal, to be corrected by the diet, or an inactive state of the skin itself, to be overcome by exercise and warm-baths. The temper is a very sure index of health : checrfulness, mirth, and freedom from anxiety, are the peculiar privilege of early childhood; the past and the future are nothing, the present every thing. The absence or interruption of these sentiments denotes deranged health. It is true that what is called a spoiled child is troubled by bad temper; for where there is moral mismanagement, there will also be physical mismanagement : the petted child will have what it desires to cat and drink, will go to bed only when it plcases, will submit to no regulations, while the irritation to which it is continually subject from the contradictions it must encounter, and from its own unrestrained feelings, wears the nervous system, and exhausts the energy which is required for the healthy action of all the functions.

The general rules for diet after weaning, then, are these: mild nourishing food given at regular intervals of time, the quality to be more animalised as the waste of the system is increased by growth and exercise: observation to be made of the effect of any new substance, such as fruit, meat, mild beer, &c., that it may be discontinued if hurtful, and wholly abstained from (for a time) when found to be so. Seasoned dishes, fried and salted meats.

pastry, uncooked vegetables, unripe fruits, wine, and rich cake, to be altogether avoided : mastication to be insisted on, and no viand to be eaten in large quantities because it is liked, while nothing disagreeable should be forced Whenever there is a disinclination upon the appetite. for food, the feeling should be indulged, since it bespeaks a state of stomach in which food would be injurious. Tempting the appetite is physically pernicious, while morally it is the first step to needless sensual indulgence. Children require to eat more frequently than adults. A healthy active child of two years, needs food every three or four hours, while awake, provided the stomach bc not loaded ; but continual eating allows no time for the repose which the digestive apparatus requires, and establishes a bad habit. Variety is also desirable; not that children should eat of several dishes at one meal, but they cannot be fed judiciously every day alike. Farinaceous food is capable of great variation. The animal food given to a child should be of a tender fibre, and eaten with a due proportion of salt, vegetables, and bread.

Every thing should be well dressed. Good cookery mcans the preparing food in the best way. However simple the fare, it should be dressed with attention to cleanliness, kept free from grease, neither over nor under done, neither burned nor dried, the proportions mixed and flavoured by rule, not by guess-work. An ill-dressed dish is not only unpalatable, but indiges-tible. Bad cookery causes waste and discomfort. The dinner of a child, however simple, should, for both these reasons, be carefully prepared. Disagreeable food is tossed about on the plate and spoiled, and thus children learn to be wasteful and indifferent to the true value of food. They may not perceive its indigestible properties by their taste; but a fit of sickness or fretfulness is no unfrequent consequence of an ill-dressed meal. There is a natural perception of good and bad food, intended to save the stomach and the system from injury, quite as much as to ensure a reasonable gratification from eating. The sense of taste may be trained to discriminate between what is wholesome and unwholesome in cookery, yet no undue love of eating inculcated.

There are various opinions as to the propriety of giving children beer. Many do not require it, but thrive sufficiently upon milk. There are others for whom it is heating and heavy; but there are also some who are thought to need the nourishment it bestows. Mild beer, well hopped, is said to act upon some constitutions more as a tonic than a stimulant, and to assimilate with animal diet better than any other beverage. We feel some doubt on this point, and would recommend bread and milk, varied by tea and coffee, diluted with milk, as a good breakfast and supper. New bread is decidedly unwholesome; it swells in the stomach, causing distension and oppression. Sweetmeats and confections, when habitually eaten, turn acid upon the stomach, and destroy the appctite for plain food. But, given occasionally in moderate quantities, and of a good quality, they are a harmless indulgence of the palate, and may be made the innocent means of promoting amuscment, and even intelligence. Young children are delighted to play with sugar-plums, and the variety of their forms and colours contributes to their amusement: when the gratification of eating has not been encouraged as a chief source of delight, they will be as much sought for the pastime they afford as for the pleasure of appetite : they should not be given as incentives or rewards.

In training the very young, it is to be remembered that natural inclinations and impulses are evil only in their abuse, and that the desire for food, like all other desires, is intended to be a source of reasonable gratification. Eating is made pleasurable, because it is necessary to life. During infancy, the most ready means of giving and obtaining quiet is food; a constant habit of eating, and looking to it for comfort, is one of the earliest impressions an infant receives: a child evinces an anxiety for any viands it may see, and this desire is laid hold of as a bribe or a reward. Eating thus becomes the chief aim and object; a child learns to eat too much and too often, is satisfied with mere animal gratification, and is most attached to those who pamper him the most. This is the abuse of a natural propensity, and the first step to sensuality. But if an infant be fed only when hungry, instead of when uneasy, and as it grows older, eats upon the same principle, with such habitual regard to neatness, order, and good cookery, as shall accustom it to discriminate between what is fit and what is unfit, wholesome and unwholesome, there will be no undue value attached to food.

#### SLEEP.

All young animals sleep much. The child partakes of this instinct so fully, that there is no necessity to promote it, but only to prevent its disturbance. Physical comfort is all that is needed; and this is to be obtained by whatever secures health-namely, proper diet, warmth, cleanliness, and the fatigue which follows upon the exercise proper to infancy. During the first few weeks of life, the sense of hearing is so dull that noise does not disturb : sudden noises, however, are sometimes distressing, occasioning a weakness of the nervous system. But the continuous sounds produced by talking, the noises of the street, or the voices and sports of other children, seldom rouse infants in the first month or six weeks, and it saves much trouble if they become accustomed to them. Sleeping in the arms, or on the lap, is for every reason to be avoided ; no child accustomed to this indulgence will rest long in its bed : neither ought they to be lulled to sleep ; they may be early habituated to be put into bed awake, and so left, with the necessary caution of watchfulness.

Although it is not practicable to adhere strictly to rules at first, there should always be an endeavour to form good habits, and this from the beginning : those which relate to sleep should be established while the disposition for repose is strongest. On laying an infant down, it should be ascertained that the fect, hands, and face, are comfortably warm, that every part of the body is supported, and the limbs uneramped; the head and shoulders being raised a little by the pillow sloping gradually to the bed. Blankets are better than sheets. The covering should be so arranged that, while there is sufficient space to breathe freely, the face is kept warm. It is better not to take up a child the instant it wakes (particularly if it have not been long asleep), nor if it cries after being laid down: change of posture, gentle rocking or slight patting on the back, should be tried. If these fail, it should be taken out of bed, and quieted in the arms. Change of linen may be nccessary: in short, patience, perseverance, and ingenuity, should be put in practice, with a view to produce comfort without entailing bad habits.

In rearing children, it is well to bear in mind that present evils ought never to be overcome by wrong means. It is best that infants should lie alone, for the air of a bed in which one or more grown-up persons are sleeping becomes impure, the child imbibes the perspiration produced by sleep, and is in danger of being overlaid -an accident by no means uncommon. Children, lying alone, sometimes become cold in the course of the night, and it may then be necessary, in order to restore warmth, to take them into bed; but when warmth has been restored, they should be again put into their own cot or erib. It is difficult to overcome that natural instinct which leads a child to lie at the breast; but they sleep alone in the day for hours at a time, and may therefore be trained to do so at night. Darkness is favourable to repose, and it has its influence upon the young, although not at the heginning of life. The object, then, is to cultivate a habit of sleeping throughout the night. Mothers must expect their rest to be disturbed until the exercise and fatigue of the day increase the necessity and the desire for night sleep. Refreshment and change of linen are needful at night, and these should be given very quietly; no amusement should be offered, or wakefulness will be encouraged, and a child will regularly rouse itself for a game of play.

Every mother will remember that she has duties as a wife and the mistress of a household, and that in providing for the comfort of her child she must not sacrifice that of her husband and of the rest of the family. A wakeful fretful child is a trial to patience, and disturbed rest is

31

hard to bear. Every arrangement that circumstances permit, that can prevent this infliction, ought to be made and adhered to. Wherever, therefore, it is possible, an infant should sleep in its nursery, and only be brought to its mother's room at the stated times when suckling is necessary. After the first three or four months, if suckled when the mother retires to rest, as already recommended, the child will wake but once more, provided the management be judicious. A child should never be kept awake when fatigued, under the idea that it will rest better at night Over-fatigue produces general irritability, pain in the limbs, fretfulness, and restlessness. For this reason, however apparently disinclined, when the fixed hour arrives, there should be no delay about preparing for bed, and this practice ought to be maintained during childhood as well as infancy. The habit of sleeping in the day is of great service, even during the first four years, and longer where there is delicacy of constitution or great activity. Sleep is the only means of giving rest to the system of a child : in health, there is no repose except during sleep : in warm weather, it is very acceptable to active children of five or six, and frequently relieves them from a wearincss which assumes the appearance of indisposition, or takes the form of ill temper and disobedience. An hour's nap will be found a safer physical and moral remedy, than a dose of medicine, or punishment.

## CLOTHING.

Warmth is essential to the health of a new-born infant, and this is chiefly to be obtained through the medium of clothing, for in the first stage of infancy there is no nuscular exercise. What renders warmth by artificial means so necessary, is the fact that infants, having a languid circulation, produce little heat naturally, and easily part with what they do produce; for which reasons, they are liable to suffer far more from exposure than adults. A certain degree of warmth is essential to the performance of all the functions, and protection to the skin assists

С

materially in maintaining this warmth, which should be sufficient to keep up the insensible perspiration, yet not so high as to produce continual sensible perspiration. The latter state relaxes the system, and renders it liable to be affected by cold draughts or changes in the weather, while it exhausts the strength, and, by increasing the action of the blood on the surface, deprives other organs of their necessary quantity. Clothing therefore must be regulated by age and by the season. The sudden change in the situation of a new-born infant calls for great care in the protection of the skin: this should be entirely covered for at least the first month; even the face and bands should be but gradually exposed. Lightness, as well as warmtb, is requisite in all articles of clotbing. Flannel and calico possess these more than any other material. But flannel, even of the finest texture, may be too irritating if worn next the skin, and it is desirable to give the infant a shirt of fine linen or cotton under the flannel, to protect the cuticle. Another reason for the use of linen or cotton next the skin is, that flannel cannot be washed often without injury to its texture; and there is also danger that, as it does not show the dirt so quickly, it may be continued to be worn too long. Lincn and cotton take little harm from frequent washing, and are so much cheaper than flannel, that a larger stock may be provided for the same expense. At no season can flannel be dispensed with, though in hot weather it should be thinner than in cold.

Looseness is another requisite in an infant's dress: there should be a free circulation of air between the skin and the clothes, as well as a slight friction upon the surface. All confinement distresses, and, when it amounts to tightness, it may occasion deformity, before the evil is suspected. Full room should be allowed for the increase which is continually and rapidly going on. For this reason, every part should fasten with strings; and in tying these strings, the greatest care should be taken not to draw them too tight. It is a good precaution, after every string has been tied, particularly those under the chin and round the waist, to put in the finger, to ascertain that it is not too tight. In comparison with strings, buttons and hooks and eyes are not to be commended: they have but one advantage, that of putting it out of the power of a hasty or negligent nurse to fix the dress too tight, as may be the ease with strings. It is necessary frequently to ascertain whether a child has outgrown its clothes. Growth is so rapid during the first two years, that a few weeks will make enough of difference in the relative size to produce pressure or restraint; clothes, therefore, should always be made so as easily to let out or enlarge, particularly round the waist, throat, and armholes, and across the chest and back.

It must ever be kept in mind, in regard to clothing, as well as other circumstances in the economy of an infant, that the babe can itself give no explanation of the inconveniences which it suffers. Bearing this in mind, and remembering how continually adults are annoyed by trifles which they have the perception to discover, and the ability to remove, it will readily be acknowledged that nothing is too insignificant for the constant and regular attention of a mother. Articles of dress contract, or otherwise lose their shape; a ruck forms, a hook bends, or a button turns and presses upon the flesh : any one of these accidents occasions pain, and frets the temper of an infant.

The more easily the dress can be put on and off, the better : there should be no other fashion than what is dictated by convenience and comfort.\* The fashion of longclothes (such, for instance, as measure a yard or more in

\* The very vicious practice which in some places still prevails of swaddling up children tightly in a mass of clothes, and covering their heads with double and even triple caps, renders it necessary to enforce attention to the above very important part of a nurse's duty. In some parts of France, infants are swathed up like little mummies, and carried occasionally on the back or under the arm of the mother; a custom which is known to have a most prejudicial effect upon the growth and strength of the population. In most cases in our own country, from a mistakeu tenderness of feeling, infants are overlothed, and both their bodies and heads are consequently kept in a too highly heated condition.—ED.

the skirt) leads to needless expense, both in material and in washing, besides encumbering and overweighting the child. There need be no more length than is necessary to eover the feet, so that the cold will not draw underneath the clothes, and to conceal the under-clothing. The change observable in a child when the long-clothes are laid aside, sufficiently proves that the limbs have been confined and activity restrained. The frequent dressing and undressing which the use of ornamental attire nccessarily entails, irritates so much, that the slightest sign of changing the apparel is a signal for crying, and a habit of fretfulness during dressing is formed, unfavourable to the tempers of both child and nurse. Loose gowns fastening in front arc therefore preferable to frocks (for the first two months), however less elegant or fashionable. All unnecessary folds should be avoided, because they may press painfully upon the muscles or bones; and the materials should be of a soft yielding nature. Harsh seams and hems or rough tapes, especially where coming in contact with the skin, will be avoided by the skilful seamstress. Where pecuniary means arc not abundant. the mother, in making her baby linen, should remember that quantity is more important than quality, and that cleanliness can scarcely be observed where the stock of elothing is scanty.

One of the most important parts of an infant's clothing is a band to support the abdomen, familiarly called the belly-band. This should be made of soft flannel or calico, that is to say, of material having some elasticity. It is intended to give support to the abdomen, especially to the navel; and it protects the internal covering of the intestines from any sudden distension. The umbilical cord is usually divided at birth about three inches from the abdomen of the infant, close to which it is securely tied, or the child will bleed to death. The final separation of the remaining portion of the cord is the work of nature, and takes place at various periods, sometimes in five days, or even less, sometimes not till the fifteenth day. The ehild is more comfortable when this is over; the unpleasant smell alone, which of course attends the decay of the part, is distressing; but there is always a good deal of tenderness, which sometimes amounts to ulceration and pain. In ordinary cases, as soon as the separation has taken place, a split raisin and a piece of singed linen should be applied to the part, and changed daily.

It occasionally happens, that, after a few weeks, the navel starts; in such a case, a common ball of sewing cotton, half used, so that what remains is soft and yielding, should be laid upon the navel, and confined by strips of strapping-plaster placed crosswise. If any thing more serious appear, such as redness, ulceration, dis-charge, &c., mcdical advice is immediately necessary. The vessels of the umbilical cord pass through the abdomen, making a passage which for the most part closes quickly and soundly after the separation of the cord; but unusual size in the opening, indisposition to close, or screaming, straining, sneezing, or any sudden violent effort, may interrupt the natural process, and force the intestines through the opening. A steady protection, which shall gently resist these efforts, yet not compress the cavity of the abdomen so as to obstruct the healthy action of the viscera, is required. The band affords this protection. In putting it on, it must be remembered that there is a distinction between support and pressure; the former is indispensable, the latter dangerous. If the cavity of the abdomen be diminished, its contents are compressed, and when any action takes place that strains the parts, there is no room for the necessary distension, and the weakest give way. The action of the bowels is impeded by compression, occasioning pain and constipation. Medical writers dwell upon the importance of the band, and decide that rupture is frequently the consequence of neglect or ignorance in regulating its use. It requires to be taken off and re-arranged morning and night, and a clean one put on every other day, as it gets rucked, and so unfitted for usc. It is often wetted, and is then likely to create pain and disturbance of the bowels; for which reason, the same should not be worn both day and night. With some

children the band is necessary for many months: when it is discontinued, the stay or waistcoat, usually worn as a sort of support to the rest of the clothing, should reach two inches below the navel: it prevents an enlargement of the abdomen, and sustains the child in its attempts to sit up.

Caps are best made of thin material, with no under cap. The custom of keeping the head warm is gradually disappearing. The bones of the skull are not all united at birth ; the parietal bones are divided, and the soft matter of the brain on the top of the head is perceptible to the touch. This opening was supposed to give a liability to cold, and the head was kept very hot; an injurious practice, increasing the action of the blood-vessels of the head to a dangerous extent, and impeding the junction of the boncs. As soon as the hair begins to grow, caps should be discontinued, especially if the scason be summer ; when the hair becomes thick, nightcaps also may be laid aside, or at the utmost only a cotton net, which admits the air freely, should be worn. When a child is to be carried about the house, however securely it may be clothed, tbc cold draughts which prevail even in mild weather should be guarded against by the addition of a light handkerchief or shawl. The disorders arising from checked perspiration will thus be avoided. On the other band, a child should never be presented naked too near a firc, as a scorching heat injures the texture of the skin and deranges its functions. On bringing an infant near a fire on any occasion, it may be well to screen its face and bands, in order to protect it from this evil.

There is little doubt that the eruptions to which the infants of the poor are subject, chiefly arise from want of cleanliness and warmth. In this country, where changes of temperature are sudden, and continual judicious clothing is the only safeguard, summer apparel cannot be safely adopted and laid aside at a given period, nor can the same dress be always worn at noon and in the evening. However warm the clothing, infants should not be carried

abroad in cold weather: their lungs cannot bear a low temperature, and there is no exercise to keep the blood equally distributed. Where ventilation is attended to, no other change of air is wanted but what may be obtained by moving from room to room. An infant usually falls asleep when carried abroad; cold increases the disposition to do so, and renders it dangerous, while no good can be derived from the external air, since common prudence dictates that the whole person must be completely enveloped. If carried about a well-ventilated room, at a moderate temperature, the child breathes freely and without risk. No child can be taken into the open air in very cold weather with safety, until it is able to take so much exercise as shall keep the blood at the surface. Before this period, the quantity of necessary clothing impedes activity. This, with the state of the air, benumbs the limbs; the blood is driven from the surface, and loads the lungs, stomach, and brain, &c.; the child returns home, is brought suddenly into a room with a fire, and probably close to the grate, for the sake of restoring warmth; violent reaction follows; the harmony of the system is disturbed, and the functions sustain at least temporary injury. The daily repetition of the disturbance tries the strongest constitutions severely, and, where there is predisposition to disease, active disorders follow. How much better to put a child into a swing, to toss him about, encourage him to use his voice, throw a ball along the floor, and creep or run after it; all of which, and much more, may be done in a room properly warmed and ventilated.\* By such means, mental and bodily energy is kept up; the blood is equally distributed; there is neither stagnation nor over-action ; fatigue follows upon the exercise, and then comes healthful repose, instead of the torpor which succeeds the combined effects of cold and inactivity.

When the period of infancy is passed, the clothing

<sup>\*</sup> Those whose means are insufficient, have in most towns the resources of an infant-school: the advantages they afford to physical welfare are not the least they bestow.

must still be attended to: if insufficient, children creep to the fire, and are very unwilling to face the cold or to exert themselves; properly clad, weather seems to make little difference to them. When a child can run alone, and express its wants and wishes by signs or sounds, it should (in cold weather especially) wear loose drawers: they may be cut so as to be no impediment to activity or cleanly habits; if the lower part of the body and the loins are exposed to cold, weakness of the urinary organs is often induced, very distressing and difficult to cure. The warmth of a pair of drawers more than equals that of two petticoats, so that their adoption need cause no additional expense.

The care of the feet is for many reasons desirable. The practice of keeping them uncovered is not to be recommended. There is danger of laceration from the many hard and sharp substances lying on the ground, and exposure is not favourable to general health. Chilblains are frequent with those whose feet are exposed in cold weather. The only advantage gained is freedom of gait; but this is an advantage which the wearing of shoes ought not necessarily to deprive us of. If shoes were made with a due regard to the shape of the feet, and a liberal consideration of other circumstances, no harm would cnsue. It is to be observed, that the foot in its natural condition, as to be seen in a nursing baby, expands regularly from the heel to the situation of the smallest toe, from which point it contracts rapidly in an oblique direction towards the great toe. Shoes are not made in this form, but, after expanding to a point a little short of the smallest toc, they contract on both sides equally, thus crushing the outer toes towards the centre. It is also to be observed, that the sole is naturally formed on a perfect level from heel to toe. Shoes, however, are formed with an inequality of from half an inch to a whole inch, or even more (we allude to grown-up persons), between the heel and the front of the foot. Thus, the body is thrown forward from a strong point, the heel, to a weak point, the toes; the limbs are prevented from ever keeping a

straight position; and the whole figure and walk are deranged. If we were to reflect for a moment on the exquisite adaptations of all things in nature, we should instantly see the absurdity of this conduct : if there had been any advantage in making the heel somewhat higher than the front of the foot, would nature, which has made every thing so nicely suitable, have failed to fashion the foot accordingly? Perhaps it is not to be expected that, either for children or adults, shoes without some elevation behind are to be adopted; but it may at least be said, that, the lower the heel in all cases, the shoe will be the better. Shoes should neither be too roomy, nor too tight, though the latter is the worse fault. The unavoidable results are corns, bunions, and distorted and turned-in toes, all of them evils of no small magnitude. When we are thus affected, free motion is impeded; the foot, instead of being placed firmly on the ground, is set down in any way that will best avoid pain; the whole person droops; the chest is contracted; and, perhaps, worst of all, the temper is rendered fretful. A mother, sincerely anxious for the welfare of her children, will cause their shoes to be made of a proper shape and consistence, to allow of perfect freedom. When an infant is to make its first advance from woollen socks, the best plan is to cause the shape of the sole of the foot when standing to be traced, and the sole of the shoe to be made from the outline.

On the general subject of protection from cold, some remarks may here be made. There is an opinion that children should be made hardy from the first, and that it is therefore proper to plunge them into cold-baths, and otherwise expose them to rigours which are obviously disagreeable to them. The practices of savage nations are cited in support of these opinions, but no attempt has ever been made to show that they are supported by any philosophical principle. When the practice of a savage nation is cited, we should guard against mistaking a peculiarity of their constitution for a general principle. It is now known that the nations in question do not

possess nearly the same amount of nervous sensibility as the European races, and that this is the true cause of their enduring so many tortures uncomplainingly at the stake. What their infants may not be affected by, may greatly injure the comparatively tender structure of an European infant. There are certainly differences of the same nature amongst infants in our own country, and some of these might be little the worse of the rigorous treatment prescribed. But there can be no doubt, that, as a general principle, infants require warmth, and ought not to be unnecessarily exposed. In them, the eireulation is languid; consequently, little heat is generated in their bodies naturally. Without being kept warm, there can be no healthy action of the functions in their case; and without a healthy action of the functions, the sound for-mation of the various parts of the frame will be obstructed. By the contrary treatment, the foundations of glandular and pulmonary disease are often laid. Infants, therefore, should be sufficiently, though of eourse not eumbrously, clad. In reply to the argument that the children of the poor are necessarily exposed, and have the best possible health, it ean only be said they live in spite of the exposure, not in consequence of it; those who are accustomed to visit the poor testify to the comparative siekly condition of the children, while the bills of mortality show that the large proportion of deaths are those of young children; and the observations of the best informed attest the fact, that much suffering, great increase of disease, and an augmented mortality, are the eonsequences of injudicious exposure to cold.

#### WASHING AND DRESSING.

For the health and comfort of an infant, washing is an important requisite. It should be performed every morning and evening, and not in a slovenly, but in a complete though gentle manner. The physiological reasons for such frequent ablutions are these :—The pores of the skin convey superabundant matter from the system; and that matter is apt to remain upon the skin, so as to elog up the pores, and prevent them from performing their functions, unless it be washed off. The pores also act as absorbents, and this function likewise is impeded when the skin is not clean. In the case of an infant, washing is moreover necessary, in a more particular manner, for the removal of all impurities, the contact of which is very unfavourable for health. For reasons which have been adduced under the head "Clothing," the water in which infants are to be washed should be warmed. Cold water is further objectionable as tending to drive the blood inwards, and overstimulate the organs, the unavoidable consequence of which is disorder, and often death. For the same reason, when the business of bathing infants is to be performed, great care should be taken to prevent draughts of cold air from coming upon them. They can only be safely undressed beside a fire for the first four months.

A new-born infant is covered with a pasty greasy substance, which must be entirely removed, otherwise it will irritate and excoriate the skin, and occasion a disagreeable smell. Soap and fine flannel or sponge are the best applications; every fold of the skin, the joints, armpits, &c., must be carefully examined and washed. It is by no means uncommon to rub a new-born babe with spirits, to prevent its taking cold after washing; but the stimulus thus given to the skin is injurious and must be painful, while the rapid evaporation occasioned by the application of spirits, tends to produce instead of to prevent cold.

On preparing for dressing and washing, every necessary article should be near at hand; it is a sign of mismanagement when a nurse has to rise to fetch any thing: the *horse* or screen, with the clean linen conveniently placed, will keep off draughts: the basket, basin, soap, sponge, and towel, should be laid within reach, and in such order that there can be no confusion, and that the clothes shall not fall into the water, nor the wet sponge and towel find their way into the basket. The nurse, being thus prepared, with the addition of a flannel apron and a low chair, strips the infant, and having washed its head with soap, rubs it

dry, and puts on a cap. The face, throat, chest, arms, and hands, are then successively sponged as plentifully as the child can bear (soap is not always required), and tenderly but thoroughly wiped. The infant is turned over, and the back, loins, and legs, are abundantly covered with water; the left hand holding the child, its legs hanging over the knee, so that the water flows from them into the basin. The thighs, groins, &c., require great attention both in washing and wiping. The corner of the apron should then be turned up, so that there is a dry surface for the child to rest on, while it is carefully wiped. The rolls of fat and creases in the neck, arms, and thighs, the bend of the arms, hamstrings, and the ears, must be thoroughly washed and dried. As the friction between the parts increases the perspiration and the liability to excoriation, they should, after wiping, be slightly powdered with unscented hair-powder or pounded starch. If occasional heat creates redness and chafing, a small quantity of plain pomatum or lip salve is often serviceable.

After washing and drying, the skin should be rubbed with the hand or a flannel glove; this restorcs the circulation to the surface, and is agreeable and soothing. Morning and night, this washing, from head to foot, must be repeated, while every impurity, from whatever cause, should be immediately removed from the skin during the day. If a child throws up its food, or there is much flow of the saliva from teething, the face and throat should be washed once or twice during the day. Before the clothes arc put on, the child should be allowed to kick and stretch its limbs upon the lap; this affords an opportunity of asccrtaining its healthy condition. At no period of childhood should this attention be omitted; any little defect in walking, running, or even sitting, should be inquired into, and the cause ascertained.

The clothes of an infant should be made with reference to convenience and speed in dressing, without requiring any pins for the fastenings. The band, shirt, and back skirt or flannel, may be arranged while the infant lies on its stomach; turning it on its back, they may be fastened

in front, and the diaper and flannel square folded and secured. Raising the child on its seat, the frock and petticoat may be put over its head, the arms put through the arm-holes of both at once, the palm of the right hand of the nurse supporting the infant across the chest, while the fingers assist the left hand. The child is then again turned over (if the frock fasten behind), and the strings tied. Putting the arms through the sleeves is a nice part of the task : in order to avoid injury or pain, the nurse should ascertain how the joint moves, remembering the extreme delicacy of the limb she directs. The cap should always be drawn ready to the size of the head, and the strings of the runners tacked up, so that they cannot get loose and irritate the face and eyes. The clothes which are taken off should be examined; those that are not dirty, but moist, should be well dried before using them again, and nothing retained that has an unpleasant smell. Where conomy is important, the offensive part may be washed out. The strings and borders of the cap get hard, stained, and crumpled, in which state they are apt to chafe the corners of the eyes, and beneath the chin, besides smelling unpleasantly.

An infant usually cries considerably while washed and dressed. When not violent and continuous, crying is serviceable: it gives the only exercise to the lungs, voice, and respiration, that infants can bear or take. As they grow older, and acquire other powers, crying is diminished. Tenderness and dexterity are nevertheless in all cases needful; when roughly handled, the sight of the basin and the sound of the water are the signals of suffering and sorrow, and it may be years before a child can regard washing as a source of comfort. This it is, and ought to be; every pains should therefore be taken to soften its discomforts to the young and tender. When the child is old enough to be amused, a playful gentle manner on the part of the nurse will render the operation so pleasurable, that all painful recollections will fade away, and agreeable recollections only remain. As soon as children acquire the power of voluntary motion, they necessarily make themselves dirty: a habit of frequent washing renders it uncomfortable for them to remain in that state; but at an early age, pleasure in washing mainly rests upon the way in which they are handled: if roughly pulled and twitched, and wiped with no regard to comfort, tears, rebellion, and dislike, naturally accompany the efforts to keep them clean.

Every kind of clothing should be aired before a fire previous to being put on; all flannel garments, in particular, require to be carefully dried in this manner. Either damp linen or flannel, dried upon the person, must of necessity produce evil consequences, especially where, as with infants, there is little exercise. The quantity of clean linen they require makes caution upon this point still more important.

## VENTILATION.

The organs of respiration are constructed in accordance with the nature of the atmosphere, or what is called pure air : they are therefore deranged, and the blood becomes vitiated, by any departure from this natural order. As air that has been frequently breathed is deprived of its oxygen, and charged with carbon, and thus is unfit for respiration, there should always be a means of admitting fresh air, or renewing the air of an apartment inhabited by children. To do this where there is no proper arrangement for ventilation, without creating draughts, is a difficulty. In mild weather, a window may always be safely left open during the day ; and if this be insufficient, or the weather unfavourable, opportunitics should be taken to change the atmosphere by a thorough draught of air when the children leave the room. A window open at top, about an inch, will do something towards keeping the air wholesome, without much risk, particularly if the window be so high that a stream of cold air does not descend at once upon the children. When the attention is directed to the importance of pure air, occasions continually offer when rooms may be ventilated without danger of cold. Sleeping-rooms are more particularly liable to deficient ventilation : three or four children probably sleep in the same chamber, and going early to bed, the air is perhaps unchanged, or only changed in a small degree, for ten hours. It is scarcely possible to lay down precise rules for preventing such an evil.

Those who possess the means, ought to avoid placing several children in the same bedroom; and those who labour under the difficulties of small houses and large families, will meet the evils of close rooms by taking care that there is some aperture, either the chimney, or a ventilator in the ceiling, door, or window, which shall admit air with the least possible draught. It is a greater evil when the same room serves for day and night; but here also an exercise of ingenuity and care may serve the desired end. Where there are difficulties, let them be met by that determination which, when springing from conviction, is generally able to accomplish its object. Bedding needs daily ventilation. Every morning, all the beds should be thrown open, and freely exposed to the air, until perfectly cool: the perspiration, which is generally abundant during sleep, occasions a necessity for this precaution. Heated impure air has a bad effect upon the tempers of young children : they grow languid, uneasy, and fractious; the nervous energy is checked; and thus all the functions, those of the brain especially, arc enfeebled.

those of the brain especially, arc enfeebled. Children evince uneasiness by crying, passive fretfulness, or active violence, as they are differently constituted. A constant recurrence of irritating causes renders them habitually frctful: they are therefore morally as well as physically injured by breathing an impure atmosphere. The mother or nurse being subject to the same influences, their tempers are in no condition to soothe the fractious little beings around them: mutual and increasing irritability prevails, destructive of true maternal and filial feeling. A proof of this state of temper may be seen in winter, in an ill-regulated nursery, the houses of the poor, and in the play or dame schools, where there is incessant crying, quarrelling, and scolding. Impure air is not the only cause of this miserable state of things, but it is one which aggravates all the other evils.

Considering the defective food and clothing of the children of the poor, and also the badly ventilated and generally filthy condition of their dwellings, it is evident that much of that health which they possess is owing to their spending the greater part of their time during the day in the open air. This fact, in itself, ought to impress upon all mothers the propriety of preserving a constant freshness and purity of atmosphere in the apartments of their children; at the same time, however, taking care to prevent the rushing of cold draughts from doors or windows, as these cause catarrhs and other illnesses perhaps as dangerous as the maladies which may arise from the want of necessary ventilation.

There are many points connected with pure air, which require constant attention where there are children. Amongst these may be cited the instant removal of dirty linen, and all other offensive matter; forbearance from drying or airing clothes, bedding, &c. while children are in the room; abstaining from the use of any clothing, shcets, blankets, &c., after they require washing ; neatness with regard to utensils; in short, minute attention to cleanliness, which is not only cssential to health, but has its influence upon morals: for dirt and indelicacy are frequent companions, and a disregard for the decencics of life is a step towards indifference to its virtues. For these reasons, as well as for security to health, habits of cleanliness and delicacy should be formed early ; children acquire or disregard these in proportion as the manner of those associated with them is indifferent or careful. When their mother or nurse is systematic and reasonable in her attention to the personal necessities of their children, they feel the influence of such habits, although they neither reason nor reflect upon them ; after a time, a sense of comfort and self-respect is associated with the observances to which they have been accustomed, and a sense of propriety eventually becomes part of their character.

47

#### VACCINATION.

The small-pox was formerly the most fatal disorder known in this country. Early in the eighteenth century, its ravages were greatly abated by the introduction from Turkey of the process of inoculation, or a voluntary infliction of the disease by its virus being introduced into the system. A much more effectual means of prevention was ascertained, towards the conclusion of the same century, by the celebrated Dr Jenner. It had been observed in some districts of England, that an eruption which occasionally took place on the udders of cows, being communicated to the hands of the milkers through accidental punctures in the skin, secmed to have the effect of preventing those persons from becoming afflicted by smallpox. To make this matter clear, a series of experiments and obscrvations was made by the above enlightened physician, who ultimately satisfied himself, and the public generally, of the following fact-namely, " that the virus of cow-pox may be propagated from one human subject to another, through several gradations, and still retain the power of producing the affection regularly in all its stages, and of rendering those constitutions which are infected secure against the attacks of small-pox."

The inoculation of cow-pox, or *vaccination*, accordingly became prevalent, and for many years small-pox was comparatively of rare occurrence. During the last few years, so many instances have occurred of small-pox attacking persons who had been vaccinated, that confidence in the efficacy of cow-pox has been somewhat shaken. Various opinions exist as to the cause of this apparent change in the preservative power of vaccination. The following extract from the Report of the National Vaccine Establishment, dated 1839, and signed by four eminent medical practitioners, states the causes of failure rationally and temperately, and shows that there is no real ground for any loss of confidence in the protective power of cow-pox.

"We are convinced that the indiscriminate vaccination which has been practised in this country by ignorant and unqualified persons, with but little or no regard to the condition of body of the person to be vaccinated, to the selection of the vaccine lymph, or to the progress and character of the vesicle to be formed, are to be regarded amongst the main causes of the occasional failure of vaccination.

We have the opportunity of bearing our most ample testimony to the continuance of the efficiency of the original vaccine lymph introduced by Dr Jenner, through nearly a million of subjects successively, of whom many thousands have been exposed with entire impunity to small-pox in its most malignant form."

Nothing can be more satisfactory than these statements, showing plainly that it is the duty of parents still to avail themselves of this simple means of protection to their children from a dangerous disease, loathsome in its nature, and, where it does not kill, is sure at least to disfigure.

The necessity of procuring proper lymph, and of ascertaining that the pustule produced by vaccination manifests the proper character in all its successive changes, implies the propriety of employing a competent operator. Medical men rarely make a charge for vaccination; the incurrence of expense can therefore be no valid objection against resorting to it. In order that mothers may aid in observing the progress of the vesicle, we will describe the appearances it ought to assume, together with a few other particulars connected with the process of vaccination.

It is first desirable that the child should be in a healthy state, free from all humours; that it should have passed over the first month or six weeks of life, and that the first manifestations of teething should not have appeared. If small-pox prevail in the neighbourhood, great risks are run by postponing vaccination. The operation is usually performed on the upper part of the arm, near the point of the shoulder; the sleeves of the dress should be loose and tied up, so that they may not chafe the part; and as soon as the incision has been made, care should be taken that nothing touch the puncture until the virus is dry: washing the place must also be avoided. During the whole stage of the eruption, pressure, friction, or any other violence, must be guarded against, lest inflammation or ulceration should ensue.

One perfect vesicle is sufficient for safety; but it is prudent to make two punctures; and when the danger of receiving small-pox is imminent, both arms may be punctured. One vesicle should always be permitted to go through its course undisturbed.

When vaccination succeeds, a small red spot appears on the third day. This spot gradually enlarges; and before the sixth day, a circular vesicle or pustule appears. The colour is at first of a light pink, sometimes of a bluish tint, and changes by degrees to a pearl colour, the centre being somewhat darker than the other parts. The vesicle increases till the tenth or eleventh day. It has an inflamed ring around its base, which about the ninth day spreads rapidly, and is somewhat hard and distended. After this ring is formed, the vesicle begins to decline; the centre turns brown, and the whole gradually changes into a hard smooth scab, which drops off about the end of the third week, leaving a permanent scar.

No preparatory medicines are necessary before vaccination, and commonly no cathartics are required afterwards. The constitutional symptoms are in general slight and transient, and such as require no remedy. They are usually drowsiness, restlessness, and sickness, occurring from the seventh till the eleventh day. In a great proportion of cases there is no perceptible indisposition; but the child is not the less secure from the future infection of small-pox, provided the progress of the vesicle has been regular and complete.

Some parents object to vaccination upon the ground that it introduces into the system any discase to which the person from whom the virus has been taken is subject. This notion is fallacious, since it is impossible to communicate more than one disease at a time. The protective power of vaccination is fully proved by the decrease of the number of deaths, in proportion to the increase of population; while its good effects are corroborated by the comparative disappearance of small-pox in those countries in which the system of vaccination has been introduced. It is scarcely necessary to impress upon parents that it is their duty to save their children from death, disease, and disfigurement, by a means so simple, safe, and natural, inflicting no suffering, and incurring no risks. We would only caution them not to be deterred by the objections raised by ignorance and prejudice against a system which may be justly pronounced as one of the most beneficial discoveries of modern times. Our explicit direction is, *let the child be vaccinated from six weeks to two months after birth, and by a proper medical attendant*.

#### DEFORMITIES AND DISTORTIONS.

Some children at birth exhibit deviations from the ordinary structure of the body. In some cases such defects are capable of cure. It is the province of the surgeon to determine what may or may not be done; but it is the obvious duty of parents to avail themselves of the power of art in such cases, and to sanction any operation which may promise to relieve their children from awkward and annoying peculiarities of form.\* The proper period for such operations must also be determined by the surgeon. A mother's apprehensions are naturally excited, lest the tender frame of an infant should be unequal to support the infliction of pain; but she will be reconciled to the propriety of early adopting the neces-

<sup>\*</sup> Very erroneous ideas are entertained by the less enlightened elasses respecting congenital deformities. They are generally the result of a diseased condition of the mother, and have nothing more wonderful or alarming about them than any disfigurement which disease produces in adults.—Ep-

sary remedies, when she is aware that the increasing intelligence of the infant renders it more sensible to the pain and fear attendant upon operations, and that its comparatively passive and quiescent state is favourable to the cure of a wound.

Some children are born tongue-tied, the tongue being too much bridled to the bottom of their mouth, by which they are prevented from sucking properly. If not remedied, this peculiarity will impede their utterance in after life. It is the duty of the nurse to mention to the medical attendant that there is such a defect, and he will remove it by a slight cut with a pair of scissors. Some mothers are so heedless as to see their children suffering for weeks and months, and even languishing, from this easily remedied evil, without taking the trouble to correct it. In the event of children being born with a hare lip, as it is called, or any similar malformation, or with a redundancy in the number of fingers or toes, the medical attendant must be permitted to remedy the defect at the time he thinks proper, but, generally speaking, the more early that all such peculiarities are removed, the better.

The deformities and malformations found at birth, are not so frequent as those which occur afterwards. These are either the consequences of predisposition to disease, inherited from parents, and increased by bad nursing, or are altogether the result of accidents, neglect, or injudicious management. Parents are obviously bound to take every rcasonable precaution, in order to guard their children from the occurrence of these inflictions, and, should they occur, to endeavour to repair or subdue them. To possess a perfect frame of body is unquestionably one of the greatest of blessings, if it were for no other reason than its rendering us agreeable objects to our fellow-creatures. The want of it has the contrary effect, and is apt with some natures to lead to moral deformity also. It is a melancholy truth, that a personal defect, instead of exciting compassion and kindness, but too often makes the individual so afflicted a mark for ridicule and contempt.

No one can be wholly callous to the effects of such a misfortune. A man of amiable temper *feels* the pang inflicted, even if he forgive it. The mere dread of ridicule has irritated many minds into a sentiment allied to misanthropy, impelling them to peevishness, pitilessness, malevolence, and all the peculiarities implied in the term bad temper—to splenetic views of life, with its attendant doubts and dissatisfaction. The conduct of the idiots and deformed beggars who frequent our towns and villages, a mark for the gibes and assaults of the ignorant, testifies to the truth of these remarks; whilst there are evidences amongst the educated and the talented of the mental deformity caused by bodily malformation. In addition to these considerations, it may be observed, that deformities very much limit the power of self-maintenance.

Parents who are themselves afflicted with hereditary disease, or are aware of ancestors and kindred who have showed symptoms of such disease, are particularly under the obligation to watch their children, in order that the first bad appearances may be met by the proper remedics. Scrofula often affects the bones of young children. From other causes, there may be a deficiency of the earthy element in the bones, rendering them soft, and thereby more hable to injury. The necessity of giving support to the back and loins in carrying an infant, and not allowing it to put its weight upon the legs on first learning to walk, will be afterwards treated, as well as the danger of *forcing* children to use muscular exertion. Wherever there is hereditary predisposition to discase, increased vigilance is needed, and increased attention to the laws which have been found to promote health. The effects of a want of pure air, warm unconfined clothing, regular hours, proper diet, and cleanliness, are seen in local weaknesses, as well as in internal and cutaneous disorders. The disease called the rickets, which is a modification of scrofula, and may be productive of distortion of the person and limbs, is to be counteracted by peculiar medical treatment, calculated to invigorate the frame; and in aid of this, as well as of simple weakness of the legs, some kind of mechanism may be applied. Weakness of the legs, whether proceeding from the poor state of health of the mother before the birth of her infant, or from any other cause, must be carefully watched, so that the earliest opportunity of preventing curvature may be taken. In every case the medical attendant should be consulted; but it is proper to state here the result of experiments which have come under our own observation —that if the child whose legs are bent be able to walk, and cannot be kept from the ground, the limbs should be subjected to a constant but gentle constraint from a steel and leather apparatus, which generally brings them in a few months, or a year, to a perfectly straight condition. If this be neglected, the child will in all likelihood have bent limbs for life.

Children often contract injury unperceived at the time, or concealed by individuals\* immediately in charge of them; and maladies may begin to affect them, which do

\* The following cases can be attested by the writer :—A medical man, visiting at the house of a relative, asked one of the family, a girl of about fifteen, when she had broken her collar-bone? The question was received as a jest, but the surgeon declared himself in earnest, and directed the mother's attention to the fact, that the left collar-bone was thickened in the middle, bent, and quite different in form from the right. After some reflection, the mother recollected, that, when three or four years old, her daughter had complained that the nurse had jerked her suddenly and violently by the arm from a low stool (a most dangerous practice, and too common), and that she suffered for several days afterwards whenever she moved the limb, but that no further attention was paid to the matter.

A child of about four years old had a small pimple on her thigh; it was unobserved, and became chafed by a tape which suspended her stocking. The servant applied spirits of turpentine to the part, and erysipelas, a painful and dangerous disorder, ensued. The mother remained in ignorance of the whole affair, until the state of the limb alarmed the nurse so much that she explained the circumstances.

A little girl of two years old being ill, the surgeon ordered an application of hot water. The nurse scalded the child, said nothing of the accident, and used some remedy of her own: the part grew worse, and finally mortified; the evil was discovered too late to save the life of the child.

Mothers should impress on nurse-maids, for their own sakes as well as the child's, never on any account to conceal an injury. not appear conspicuously till they have made considerable progress. When children are undressed at night, it is advisable to encourage them to run about the room, stoop, kneel, sit down, and rise again, &c. The mother may then herself observe the action of the muscles and joints, and so be enabled to detect the first symptoms of any injury, the marks of any hurt, or the evidences of any contractions or distortions, whether they arise from weakness or bad habits of muscular action. If the cause can be traced, a remedy may be more easily applied. In some cases surgical aid may be necessary, and it should be obtained without delay; but if it be clearly ascertained that the weakness originates in an insufficient use of the part, a gentle but steady application of exercise will probably be found a suitable remedy. The following fact will illustrate our meaning :—

A boy of seven years of age was observed by his father to turn in the left knee in walking, so as to himp slightly; the child was undressed, and on watching the action of the limb, it was found that the boy had, from some cause or other, contracted this habit, and that he avoided as much as possible all use of the left knee; the muscles were consequently weakened, slightly shrunk, and comparatively useless. An exercise was immediately adopted, which brought the weak muscles into gentle continuous use, and at the end of six weeks the limb was perfectly restored. It is necessary to add, that the father himself superintended the exercise. Had the altered gait escaped early notice, it is probable that bandages or irons would have been required as remedies. This fact will serve as an example of the kind of attention and treatment recommended to parents. Similar instances could be added to show that incipient distortions may often be overcome by attention, good sense, and perseverance.

Bad habits, or tricks, as they are called, often produce distortions during the whole period of growth. Before running alone, infants often creep along the floor; a salutary practice when the limbs are employed equally. It is not unusual to see a child make use of one leg only to help itself along, dragging the other after it, as if it were useless: the muscles of the unused limb consequently become flaccid and weak; and when the attempt to walk is made, a limping gait is contracted, and the weak limb becomes permanently debihitated. In such a case, creeping should be wholly prevented, or at least suspended until the injurious habit is forgotten. On first running alone, a fall may produce a slight injury, the pain from which may be escaped by avoiding the use of the injured part. If the gait thus adopted escape observation, it becomes a habit, and the diseased muscles grow weak, while those which receive the additional work become so strong that they retain the limb or joint in the assumed position, and thus lameness is established, to be removed only by severe remedies.

Children are apt to accustom themselves to use the left hand more readily than the right, and so become what is termed left-handed. Lcft-handedness is always a mark of careless nurture; for no species of imperfection may be so easily guarded against. When the child begins to use a spoon, or to handle any object, let care be taken to make it use the right hand chiefly, and also accustom it to shake hands only by that hand. By these means it will soon learn that the right is the proper hand to employ, and in this respect will grow up faultless.\*

The tricks contracted by children create unexpected evils. It is by no means unusual for them to stuff substances up their nostrils, or into their ears, producing tumours and deafness, or rupturing some of the smaller vessels of the nose. All habits which distort the features (as, for instance, over-distension of the mouth by using a

\* On lately calling upon a lady, the mother of a child, a boy of three years of age, we observed the child was amusing himself with a pencil, drawing figures with it on paper with the left hand. . We called the attention of the mother to the circumstance, and her despondent reply was, "Ay, poor thing, he's left-handed, but it cannot be helped;" and she was surprised when we told her that she had only herself to blame for the imperfection. How many children are spoiled by mothers of this easy and accommodating disposition !--Eo. too large spoon, or otherwise) are better checked in their earliest manifestation; they are not only disagreeable to witness, but they confer an unpleasant expression on the countenance. All persons are influenced by physiognomy; and there can be no doubt that the preservation of the graceful forms of feature, so often found in children, ranks amongst the duties of a mother. The doing this does not cultivate personal vanity; self-respect demands a certain care of the person, and this care naturally extends to the avoidance of every habit destructive of general propriety of appearance.

It is of great importance, in rearing children, to *prevent* all physical calamities; but as this is not always possible, the next important step for parents to adopt is a speedy and judicious employment of remedies. Mechanical contrivances are found to be very effective in restoring the strength and shape of the limbs. Their application, though apparently distressing to the patient, should be persevered in, upon the principle that any suffering they inflict is short and trifling in comparison with the unceasing trouble, ill health, and helplessness, entailed by lame-Steel and leather bandages present a disagreeable ness. appcarance; but, as the mother knows their utility better than the child can do, it is her part to set an example of patient fortitude. And while she soothes the patient, she must be careful that her tenderness does not weaken the power of endurance; nor must she resign the control which is not only necessary to the moral welfare of the child, but to his bodily restoration.

Curvature of the spine is the most frightful of all distortions. The danger to which the spines of infants are liable, arises chiefly from carelessness or ignorance on the part of their nurses. Hurts from a fall or blow have often serious consequences; but these are sooner discovered than the slow but unceasing destruction proceeding from bad nursing. A child who is constrained to keep the same position for more than a few minutes, who falls asleep while carried erect, who is wearied out by irregular hours, is always in danger of loss of health. It depends upon the nature of the constitution what form the cvil takes. Paralytic disorders of the lower limbs of children generally proceed from some spinal affection. When disease of the spine affects a child who has been able to walk, the loss of the use of the legs is gradual, though not very slow. He at first complains of fatigue, and is unwilling to move about, and soon after frequently trips and stumbles, although there be no impediments in his way. In attempting to move briskly, the legs involuntarily cross each other, and he frequently falls; while in trying to stand erect, even for a few minutes, the knees give way, and bend forward. As the disorder advances, the child can with difficulty direct his feet to any precise point. Where children have not begun to walk, there is debility in the lower limbs, which forbids their usc.

Two striking instances of deformity, occasioned by hurts of the spine, have fallen within our own observation. In the first, the child had crept under a pianoforte, and, on returning from beneath it, rose before he had cleared the edge of the instrument. He struck the middle of the spine, and in a few years became hump-backed to a deplorable extent. In the second case, a child who had just acquired the power of running alone, was placed on his feet suddenly and violently by his nurse: he cried with pain for a while, in a short time lost the use of his legs, and ultimately became a cripple and deformed.

Curvature of the spine is not so often found in very young children as in girls of six or eight and upwards. It is mostly found to arise from tight-lacing, sedentary employment, insufficient exercise, and undue mental occupation. The disorder has hitherto mostly afflicted the daughters of the higher classes; but it has been observed of late by an intelligent individual employed in making mechanical contrivances for the correction of distortions, that curvature of the spine is frequent with the daughters of small tradesmen and artisans, who, having only one or two children, desire to advance them in life beyond their own class. To this end they laudably and rationally desire to bestow on them what they under-

stand to be a good education. The error lies in the mis-conception of the term. The girls are spared from active household duties, and sent to school, with the impression that they must study hard. Exercise and fresh air are neglected. The impure atmosphere, the hard narrow benches of the school-room, and the stooping position assumed in writing, ciphering, and needle-work, together with the long hours passed at the pianoforte, add to the probability of injury. On leaving school, the tight-lacing is increased, and this necessarily forbids sufficient exercise. In many cases, girls on leaving school are apprenticed to some business, where they ply the needle from ten to twelve hours daily, with an interval of an hour for dinner, and half an hour for tea. In London and other large towns, dressmakers and milliners at particular seasons are frequently at work the greater part of the night, and this at an age when girls are growing rapidly. Parents will do wisely to consider how far the welfare of their daughters is likely to be advanced where the risks of diseasc are so great.

A defect, however slight, should never be regarded as too insignificant to deserve attention; neither should a deformity or malformation be looked upon as incurable, till time and experience have proved every endeavour useless. It is quite certain that much may be done by mechanical means, and it is equally so that care and attention will prevent the further progress of a distortion. even if they do not remedy it. Facts are more convincing than arguments. A delicate girl of six years of age falling into weak health, her parents observed that one of the vertebræ of the neck started out beyond the rest. This was attributed to general debility; and change of air, with increased nourishment, was adopted. Notwithstanding these measures, the other vertebræ of the neck gradually curved outward, the chest contracted, the head leaned forwards, and growth was apparently stopped, while the general health bccame so materially worse, that death seemed inevitable. The probable effects of mechanical aid had been overlooked or deemed hopeless : although

four years had elapsed since the first symptom of distortion was observed, they were now resorted to. The child was laid upon a mattrass, with weights attached to the neck and around the body, so arranged as to keep the whole person clongated, and the chest expanded. At the end of five weeks there was an alteration of form sufficient to justify the hope that if the child's health improved, the deformity might be greatly if not wholly overcome. At present, the general health is in a better state than when the child was first placed on the mattrass.

A premature use of the brain in childhood is a fertile source of weakness and disease. Precocious children generally die before they attain maturity, or dwindle below the ordinary standard of intellectual power. Precocity is frequently the result of diseasc. Wherever it is manifested, parents will do wisely to repress the love of study, and to encourage bodily exercise. The brain, during infancy and childhood, is very soft, and almost liquid under the finger, yet supplied with more blood in proportion to its size than at any subsequent period, and conscquently highly excitable. The nervous system is connected with the brain, and is early developed; it is the source of all vital movement, and gives energy to those actions which tend to the growth of the body. When growth is rapid, as in childhood, there is a great draft of nervous energy upon the brain ; if, therefore, the mind is worked much at this time, a deficient supply of this energy is sent to the frame, and, as a natural consequence, the progress of growth is checked. The disease called rickets is often attended by a premature developement of the faculties; the brain is particularly active; and if such activity be not checked, there can be little hope of recovery from the disorder, inasmuch as the use of the brain tends to exhaust the vital powers. The same reasoning applies to all other diseases of the bones, and plainly shows, that, to ensure the perfect physical development which nature intends to prepare during childhood and youth, the brain should have but a comparatively small amount of labour. It is the opinion of many men of high medical celebrity

in this and other countries, that no intellectual labour, no study, should commence till after seven years of age, and that a contrary course injures the body, while it affords no permanent benefit to the mind : much may be learned without study. As this subject will be reverted to, it is only necessary to repeat, that, where there are original delicacy of health, predisposition to disease, injuries from accident or undefined causes, the brain must be employed sparingly, and never fatigued or excited.

Healthy children are continually in motion, ever changing their position and amusements. A few minutes' steady attention to one object is all that ought to be expected until seven ycars of age are attained ; and where there is delicate health, this freedom of mind and body ought to be continued longer. Dr Arnott observes, "To the well-being of the higher classes of animals, exercise of their various parts is as necessary as their nourishment; and if it be withheld by any cause during the period of growth, the body is often crippled, or at least never acquires its due form and proportion. The sedentary employment of girls, and the unfortunate notion that all active sports and excreises are indecorous, occasions early weakness of the body, especially in the back. To remedy or prevent this, strong stiff stays are put on at an early age to support the back, as it is said, but which, in reality, by superseding the exercise of the muscles intended by nature as supports, cause these to lose their strength, so that when the stays are withdrawn, they are unable to support the body."\*

The constant change of position which children adopt, is evidently to give alternate exercise and repose to the muscles. To sit still and upright is really painful to them; left to themselves, they rarely carry their exertions beyond the point of healthy fatigue; and as soon as they feel this, they spontaneously throw themselves on the floor to obtain the necessary repose. It is not the *doing* this, but the *way* in which it is done, which constitutes

\* Arnott's Elements of Physics.

indecorum; and it is this point whereon a mother's instructions may advantageously be given. The ill-health or temporary ailments of children, often

prove a source of moral evil to the sufferers. Indisposition renders them fractious and impatient; the indulgence of violence or fretfulness necessarily impedes recovery; and to avoid arousing these feelings, parents often humour and coax their children. Additional tenderness and unremitting attention are necessary from the mother or nurse ; but these may be afforded without the slightest relaxation of moral discipline. The control of the parent is as needful in sickness as in health. An ailing child is often a spoiled child; expecting the gratification of every whim, and yielding to alternate fits of violence or peevishness. A sick child is but too often persuaded or deceived into taking medicine, when he should be directed by the calm, honest steadfastness of a parent's authority. If he once obtain the victory, or has reason to suspect himself imposed upon, he will become unmanageable, or meet deceit with deceit. The observance of the duties of obe-dience during illness is no source of pain, but produces that calm reliance upon the sense, affection, and power of the parent, most favourable to recovery. To these remarks we may add, that the severity and coercion necessary to restore a convalescent child to the good con-duct which needless indulgence in sickness has disturbed, produces more miscry than any rational firmness to con-trol the invalid can inflict.

## STAMMERING.

The organs of speech are, with rare exceptions, perfect, and calculated, by proper nurture and example, to perform correctly their assigned office. In the first efforts to speak, the child is a mere creature of imitation, and will acquire a tone and habit of utterance in conformity with those of his instructors. It is therefore of importance to avoid all improper modes of speaking before children, and in particular to keep them from acquiring the habit of stammering or stuttering. This defect in speech, besides being readily caught by imitation, sometimes arises from fear, eagerness, or violent passion. A child whose ideas succeed each other very rapidly, is often unable to express himself quickly enough, and utterance is impeded by his own energy. When the trick of stammering has once begun to take place in a few words, it will extend itself to others, and particularly to all the first words of sentences, because then the organs pass in an instant from inactivity to action. The propensity to stammer, from whatever cause it proceeds, should be checked on its earliest manifestation. The person addressed should refuse to attend until the child speaks slowly, and with care. The moment he begins to hesitate, he should instantly be made to cease from speaking, and then to recommence with deliberation. If these precautions are not sufficient, let the child, for a few minutes at a time, and frequently in the course of the day, repeat the vowels in a firm, strong voice, and afterwards the consonants, singly, and variously combined with the vowels, and occasionally a few sentences fitted to his intelligence.

Above all things, patience is necessary. If, as is most probable, the child is nervous and irritable, any treatment increasing these feelings will also increase the propensity to stammer. Stammering is often caught by imitation The means recommended above will best put a stop to a habit so acquired: to reason with, or forbid the little mimic, is not likely to quell the active propensity.

Stammering sometimes arises from any nervous disorder of the muscles of speech, particularly a spasmodic affection of the glottis, or narrow opening at the top of the windpipe, by which the air passes to and from the lungs. It is difficult to say how far young children may be affected by such disorders; but, however this may be, attention should be paid to strengthening the frame generally, while every means should be taken to acquire perfect articulation. It has been suggested by Dr Arnott, that the glottis during common speech need never be

. .

elosed, and if it be kept open, stuttering is avoided. In humming or droning any simple sound, like e in the word *berry* (to do which at once is no difficulty to an habitual stutterer), the glottis is opened, and the pronunciation of any other sound rendered easy. If, in speaking or reading, the stammerer joins his words together, as if each phrase formed but one long word, or nearly as they are joined in singing, the voice never stops, the glottis never eloses, and there is no stutter. Stutterers often sing well, without the slightest hesitation, for the glottis opens to emit the tone before the words of the song are pronounced, and does not again elose. They also declaim and read poetry well, the uninterrupted tone being almost as great as in singing. Many persons speak in a drawling tone, and often rest on the simple sound of e mentioned above; saying, for instance, "e, I, e - -, think, e - -, you may, e - - -;" the sound never ceasing until the end of the phrase. A stutterer adopting such a manner, would overcome his defect, and be no more remarkable than any other drawling speakcr.

If the simple means first recommended be not suffieient to check the early habit of hesitation, it may be supposed that there is some spasmodie affection of the glottis. With children the cure of stammering must be pretty much a matter of imitation; they eannot understand the causes of their difficulty, nor the means of removing it; but if the mother assume the drawling mode of speech recommended by Dr Arnott to the adult stutterer, and the child can be brought to imitate and adopt her manner, it is fair to presume that the effects will be the same.

The broken English of infaney is so engaging, that parents are generally unwilling to correct it. Mere infantine mispronunciation requires no such saerifiee. Indeed, it would be wrong to attempt to improve it, since the child's temper thereby would suffer; but there are errors which ought to be contended against at first, such as the hesitation already remarked, lisping, and the inability to sound the r. In order to overcome these defects, the mother should first ascertain by what actions and positions of the lips, tongue, palate, and throat, she herself produces the various simple and compound sounds which constitute the elements of speech; then transferring her observation to the child, discover how the organs are misemployed. For instance, lisping is chiefly the substitution of th for sh; in which case, the tongue is thrust loosely forward against or between the teeth, thereby stopping the transmission of breath through them, instead of being kept back rigidly in the mouth, and the breath forced over it, through the teeth. The pronunciation of the letter r requires the tongue to be first put forward, and then drawn curlingly back, by raising its tip to the palate. If the latter action be missed, the necessary vibration is omitted. R is sometimes pronounced like l; in which case the tongue goes at once to the palatc, instead of being first thrust forward to produce the vibration. A small degree of care on the part of the mother or nurse will remedy these defects of utterance.

It is hardly necessary to offer any comment upon the importance of possessing a distinct articulation free from any defects. The following passage from an eloquent writer will best advocate the cause, if, indeed, advocacy can be needed :—" Speech is one of our grand distinctions from the brute. A man was not made to shut up his mind in itself, but to give it voice, and to exchange it for other minds. Our power over others lies not so much in the amount of thought within us, as in the power of bringing it out. A man of more than ordinary intellectual vigour may, for want of expression, be a cipher, without significance, in society. And not only does a man influence others, but he greatly aids his own intellect, by giving distinct and forcible utterance to his thoughts. Our social rank, too, depends a good deal on our power of utterance. The principal distinction between what are called gentlemen and the vulgar, lies in this; that the latter are awkward in manners, and are especially wanting in propriety, clearness, grace, and ease of utterance." It is therefore for mothers to lay the foundation of the benefits to be derived from this "power of utterance." Where the articulation is faulty, the expression of ideas, however admirable they may be, will be ineffective, if not ludicrous.

# SQUINTING.

The eyes of an infant are for some time very weak, and can scarcely be said to be obedient to its will or inclinations. The mind being as yet inert, the organs of vision roll about, as if by instinctive impulse. While in this unregulated condition, the two eyes may occasionally he observed to look different ways, or perhaps both inwards towards the nose. These affections, which arise frequently from the desire to look towards the light, or towards any object which captivates the infantile curiosity, should he in all cases checked, by simply holding the hand over the eyes, so as to cause them to shut, and assume a proper direction on being opened. So extremely liable is the child to squint in its vision, that this will sometimes require to he performed several times in a day.

As the strength of a child increases, so does its power of vision; nevertheless, the mind heing uninstructed, the eyes will continue for some time liable to derangement. Light shining always from one side, or the placing of a knot of ribbon over one eye, will lead to a habit of looking obliquely, and therefore all such causes of derangement should as far as possible be avoided. The infant must be guided in its efforts to look as well as to speak. It should be held fairly towards the light, or towards any bright object, and at such a distance as will accommodate the focus of its vision, and cause it to use both eyes alike. The habit of looking obliquely either with one eye or both, is that which has to be chiefly guarded against, and corrected when it occurs. Obliquity of vision may arise from natural defects, but that is seldom the case; in almost every instance, squinting is a result of sheer carelessness of the mother or nurse.

When the child's faculties arc advanced, it may acquire

a habit of looking with one eye, while the other is kept shut. The effect of such a habit being to strengthen one eye unduly, and weaken the other in proportion, it should be promptly checked; which may be done by covering the strong eye, or that which is always employed, and confirming the use of the neglected eye. By this means the muscles of the latter gain strength, and acquire the power of directing and adjusting the The time necessary for the eure depends upon eye. the inveteracy of the habit, the length of time that the muscles have been left to themselves, and their eonsequent weakness; for it is with difficulty that muscles acquire an increased degree of action after having been long habituated to a more limited employment. Where the habit has been of short duration, a piece of gauze, stretched upon a circle of whalebone to cover the best eye in such a manner as to reduce the distinctness of vision to an equality, and worn some hours every day, has effected a cure. Instances are on record of a squint being removed by wearing between the eyes a piece of thin metal, which, projecting from the nose, prevents the distorted eye from seeing an object obliquely.

The following mode of euring squinting has been recommended :---When the child is of an age to observe directions, place him directly before you, and let him close the undistorted eye, and look at you with the other. When you find the axis of the eye fixed directly upon you, bid him endeavour to keep it in that situation, and open his other eye: you will now see the distorted eye turn away from you towards his nose, and the axis of the other eye will be turned towards you. But, with patience and repeated trials, he will by degrees be able to keep his distorted eye fixed upon you, at least for some little time ; and when you have brought him to keep the axes of both eyes fixed upon you, as you stand directly before him, you may ehange his posture ; setting him first a little on one side, and then on the other. When in all these situations he ean perfectly and readily turn the axes of both eyes towards you, the cure is effected.

Squinting is sometimes the consequence of any severe illness which has affected the head. In such cases, it will probably disappear as the strength of the constitution is restored. It is also brought on by over-tasking the mind with study, or by any cause which exhausts the vital energy of the system. In such cases, no remedy can be effected unless the cause be removed.

The following case is quite worthy the attention of parents; the facts have never before been printed, but their verity is undoubted :—

A healthy boy, when about four or five years of age, contracted a habit of squinting with one eye, and so suddenly, that his parents at first supposed it was brought on by his having imitated some person who laboured under the defect. This, however, could not be asccrtained, and the habit continued to increase. Medical men were consulted, and various mechanical contrivances applied, but with no effect, except, indeed, that the weak eye grew worse, and the other became affected, though in a less degree. One surgeon recommended a course of alterative medicine; but as the general health of the child was undisturbed, the parents were unwilling to try such an experiment. The boy could read well for his age, and was generally intelligent, but books were now prohibited, and he was restricted from looking at small or near objects, as the squinting was always thereby increased. The father of the child, after repeated investigations, came to the conclusion that the antagonist muscles were not strong enough to keep the eye in its proper position, for the sight of both, when used separately, was quite sound. The cure, therefore, could only be effected by strengthening these muscles, and he proposed to confirm the whole muscular system, as well as give power locally. To this end a regular course of gymnastics was adopted, superintended by the father himself, and proportioned to the age and power of the child; he was well fed, kept a great deal in the air, restricted from study, but instructed orally in subjects suited to his age and capacity. He was also made to shut the eyes alternately, and to look

straight forward at an object, and outwardly with the unclosed eye. Every morning on rising, winter as well as summer, a pint of the coldest water was dashed upon the temples, and in the warm season a shower-bath was added. He was also encouraged to catch a ball daily.

the temples, and in the warm season a shower-bath was added. He was also encouraged to catch a ball daily. For some time, little or no improvement was percep-tible; the perseverance of the parents was unrelaxed; and at length a gradual amendment became apparent, but of no permanent kind, for at the end of two or three days, the eyes would relapse into the original state, and then rally again. The plan was not, however, given up or neglected, although if any accidental omission of any of the remedies (particularly the gymnastics) occurred, a change for the worse was immediately visible. If the child had cried, was reprimanded, alarmed, kept in the house in consequence of bad weather, or did not go to bed till after his usual hour, the squinting invariably and immediately became worsc. At the end of about eighteen months the boy was capable in some degree of controlling the action of the eyes; and as he became aware of this power, his own endeavours to overcome the defect were added to the energetic attention of his father. Four years elapsed before the defect could be considered cured, and even after this time, indisposition, mental excitement, particularly of a painful nature, want of strong exercise, or over-fatigue, occasioned a slight temporary wavering of the axis of the weaker eye.

Parents will not fail to perceive, from the instance above cited, that perseverance and even fortitude are required on their part, and unremitting personal attention, in whatever circumstances of life they may be placed, if they would overcome the physical defects of their children. Above all things, it is desirable they should be impressed with the possibility of a cure, and that the advice and attendance of a medical man, to be of any avail, must be seconded by *themselves*. Again, docility and intelligence on the part of the afflicted child will be needed, and these qualities mainly spring from the training it receives. There is an old notion, that, in order to effect any cure, the patient must have faith in the remedy. At first sight the observation appears to be founded in superstition; but on reflection it will be seen that faith not only implies belief, but also the desire to act in accordance with the dictates of belief. Thus, the patient seconds the efforts made by others in his behalf, and remedies are therefore more likely to take effect. To this state of willingness the mother must bring the child, and nothing is so likely to operate advantageously as her own mild, patient, affectionate energy and attention. Example has its effect, while the influence which it is the peculiar privilege of a mother to establish over the affections and understandings of her children, strengthens the power of her example.

#### TEETHING.

The milk teeth, or teeth which appear during infancy, are twenty in number; namely, four incisors or front teeth, two caninc or cye teeth, and four molar or double tecth, in each jaw. The period at which they cut the gum differs considerably in different children; sometimes they begin to come forth at four months, sometimes not till near a twelvemonth: the double teeth have been in some instances delayed till near three years of age. In their cutting, they usually follow a certain order: first, the middle incisors of the lower jaw, and, after an interval of three or four weeks, the corresponding upper incisors ; but not unfrequently the whole four first appear he in the upper jaw: next follow the canine on the lower On and upper jaws, succeeded at intervals by the molars, those nearest the single teeth appearing first. There is a popular notion that a departure from this order, which often takes place, increases the difficulty of teething; but, as far as we have been able to judge, this opinion docs not appear to rest on any proper foundation.

The following is the process of teething :—At the time of birth, the teeth are lodged in their separate sockets, cach being surrounded by a delicate and vascular mem-

brane, which, as the tooth increases in size, hecomes stretched and pressed upon in all directions, occasioning pain and inflammation. This pressure stimulates the absorbents to take away the interposing membrane and gum, and thus a passage is made for the tooth. One of the first symptoms of teething is a heat in the mouth, perceptible while sucking. Other symptoms are a flowing of the saliva, eagerness in the child to convey every thing to the mouth, and hiting and grinding the gums together. The flow of the saliva is very advantageous; it diminishes the inflammation and irritability of the gums, allays thirst, assists digestion, and lowers the action of the system, which is generally cxcited by the process of teething. After these symptoms have continued for some time (the period is indefinite), the gum becomes redder, swelled, and semi-transparent, just above the points where the teeth appear. The saliva often flows abundantly, months before the teeth appear. This sympathetic affection probably denotes the hardening of the tooth, the surrounding membrane being irritated before the gums are affected. The flow of the saliva is not therefore to be regarded as certainly indicative of the immediate appearance of the teeth. The desire to press the gums seems instinctive, and intended to assist the absorption effected by the mechanical pressure of the growing teeth, and to promote salivation. It has long been customary to give an infant a coral, an ivory ring, or a piece of orris root, to bite; but hard substances tend to bruise and inflame the gums: the best material is a piece of flat India-rubber, about an inch thick, cut in the form of a cross, or thus, T, the edges being rounded. The elasticity of the material prevents injury to the gum, while the form here recommended does not distend the mouth like the ring, nor incur the risk of choking, or wounding the roof of the mouth. A crust of bread is agreeable and serviceable, but requires care; when it has been sucked for some time, it is apt to break, and lumps may be swallowed, or stick in the throat.

Teething in some cases occasions fever, flushings of the

cheeks, diarrhœa, disordered passing of the urine, impatience, disturbed sleep, sore eyes, eruptions, and convulsions. These symptoms are by no means frequent, and sometimes altogether absent. In many instances the teeth are cut so easily, that their first appearance is not discoverable from any symptomatic affection. Feeble and excitable constitutions are most liable to disorder. Where feeblencss is the case, there must be strict attention to diet (the breast is almost essential), to warmth, cleanliness, ventilation, gentle exercise; in short, every regulation that promotes nourishment and precludes exhaustion. When the nurse has to deal with excitability, every thing must be avoided that can promote excitement, whether of the stomach, the circulation, or the nerves. At such a time the gentle cheerfulness and patience of the nurse and mother will be largely called upon. The fretfulness of an infant when teething is often confirmed into a habit by the injudicious indulgence or impatience of the nurse. Previous habits have a great influence at this time. If these have been regular from birth, the perfect health usually enables the system to sustain the effects of teething with less pain and difficulty; the local symptoms, such as swelling, redness, and irritation of the gums, may be considerable, but the system itself will be less disposed to irregular action.

Where the mother has acquainted herself with the constitution, she will be prepared to act in accordance with nature. A moderately relaxed state of bowels is advantageous. If the bowels are confined, and will not yield to diet, a gentle purgative, such as castor-oil, manna, magnesia, or senna, must be given without delay. The warm-bath assists materially in soothing pain and excitement, allaying fever, and regulating the circulation. A mother should continually examine the mouths of her children, nor discontinue the practice until the second set are cut; neither should she forget that, even after three years of age, they may be disordered by teething. Sudden fretfulness or waywardness of temper, cough, and even symptoms of croup, have been traced to the cutting of a delayed double tooth. Until all the teeth have appeared, the mouth should be continually inspected, especially upon any sign of discomfort either in the temper or the health.

Lancing the gums is an operation of great utility. It has been already said that the local irritation arises from the pressure of the teeth upon the membrane: when this is divided, the irritation is abated. The undefined fcars of mothers often refuse the relief offered by lancing; but it does not appear that any mischievous consequence can arise, while it is certain that the operation produces benefit, even if the tooth does not appear till some time afterwards: properly performed, it gives no pain, but, on the contrary, immediate relief. Delay is frequently productive of serious consequences, and there are many instances where excessive fever has been almost immediately subdued by merely lancing the gums.

### EXERCISE.

Repose is essential to the existence of a new-born babe: the functions of respiration, though regular, are not prepared for the excitement caused by motion, nor are any of the animal organs fitted for exercise. Unless where there is unusual strength, the fatigue of washing and dressing is sufficient for the first three weeks; as is amply proved by the long sleep which (when all else goes on well) usually follows upon those operations.

In the course of a few weeks, the senses begin to act. A brilliant object attracts the eye, or a sound the ear; and a slight movement is the consequence. This is the beginning of voluntary muscular motion. In time, muscular action becomes independent of mental impressions, for the activity of the body soon outstrips the progress of the mind, and leaves it behind.

After this period, it may be said that an infant can create exercise for itself in the acts of sucking and crying, and in slight movements of the head, hands, and feet. For some time, it is not fit for any other exertion of its

muscular system; and, accordingly, it should he subjected or exposed to no other. It should not he dandled, or in any way moved violently about. It should lie quietly in the arms of the nurse, or in its crib or bed, carefully supported in all parts of its body-head, back, loins, and limbs. The reason of this is, that the hones are at first cartilaginous, or gristly; soft, pliable, and elastic; and therefore totally unfit for enduring any strain, force, or weight.\* Great evils may follow from the infant heing forced prematurely into an upright position, or from that position, after the child is in some degree fitted for it, being continued too long. Women entrusted with the charge of young infants out of doors, are perpetually seen subjecting them to the upright posture, prematurely or too continuously, from a natural but most fatal wish to save fatigue to themselves. It should he distinctly understood, that when the upright posture is assumed, the weight of the upper part of the body is thrown upon the lower part of the spine. If that part of the system be sufficiently strong, no harm ensues ; hut when it is otherwise, it gives way, and the chest is thrown forward and downward. The double consequence is a curvature of the spine, which too long neglect may confirm into a settled deformity, and a crushing of the organs on which depend respiration, circulation, and digestion.

A slow rocking or swinging motion as the infant reposes on the lap or in the arms, is the best possible commencement of exercise. Sudden jerking on the knee, or pats on the back, or any thing which jolts and shakes, produce internal pain, and is more irritating than soothing. Gentle motion may proceed to something more active, as the strength of the limbs (and the neck especially) dictates. The power of holding the head up, and

<sup>\*</sup> The bones of all young animals are alike in texture. Let the mother remember how easily the bones of the sucking-pig, the calf, lamb, or young fowl, may be bitten through, or even pressed and divided by the finger and thumb, and she will have some notion of the condition of an infant's bones; with this difference, that the latter are much softer, inasmuch as animals and birds sooner reach maturity.

moving it steadily from side to side, forms a good index of the strength of the spine. In exercising a babe, nature must be followed and seconded, not directed and controlled. When it is desired for the first time to change the recumbent position, the whole person of the infant should be gently elevated as it lies along the arm or lap; and when the upright position is at length assumed, it should be only for a minute or two. Attention should be given to the effect produced upon the breath-ing by exercise. Some infants turn black in the face upon meeting the air quickly, and their breath will be stopped on being carried rapidly down stairs. Where such symptoms exist, additional care is necessary. An infant should never remain very long in one position, because the pressure that takes place being confined to one part, free circulation is prevented, and numbness ensues. When carrying a heavy child, the nurse herself experiences this, and the child must feel it in a greater degree. From six to fourteen months is the period which most taxes the strength and activity of a nurse. The child has muscular power enough to sit up, and to bear, and to need, a good deal of motion, yet is not sufficiently strong to depend upon itself. It still requires to be so carried, that its weight chiefly falls upon the nurse, while its incessant desirc for motion makes nursing really hard work. But when allowed and assisted to take judicious exercise, it sleeps more soundly and for a longer time at once; it will be more easily diverted in its waking hours; while its growing intelligence and affection render it an object of deeper interest and amusement. Thus, the good nurse has her reward.

The spontaneous efforts of a child will never injure it, if placed in a situation to make these efforts securely. Thus, when an infant is laid on a large soft cushion on the floor, the endeavour to rise is made as soon as the muscles of the neck have some power, and the head will be lifted a little, but the effort stops there. The head cannot be retained in its position, and it falls again. The cushion protects the part; there is no pain; and the attempt is

made again and again, till the fatigue or disappointment eauses a change in the action, or a cry for that assistance which experience has taught it to expect. Accustoming a child thus early to be left on the floor, or in bed, is a means of moral discipline for the mother's convenience. and for the furtherance of freedom to the limbs. When a child can sit up firmly, tying it into a chair that will support the back, into a chair swing, or allowing it to sit on the stuffed cushion with the means of amuscment just within reach, promotes exercise, and permits free spontaneous exertion. Such and similar resources for the advancement of physical good ought never to be adopted as a means of punishment; when once this has happened, they are regarded with aversion; neither ought a child to be forced to submit to them, if at any time they are disagreeable or fatiguing. As with all the other functions, exercise is a cause and a consequence of strength. The first indication of the desire to make the legs bear the weight of the body, is given by the child itself, by press-ing its feet upon the lap; the lower limbs arc, however, still incapable of supporting weight. The pressure, with the setting of one foot before the other, are only salutary preparatory exercises, and should be encouraged and aided by holding the infant so that it may just place the feet on a level surface, without bearing its own weight : from this the progression must be very gradual.

As the power of walking alone depends upon the strength of the bones and museles, the period at which it may be acquired is not always the same; much, however, depends upon nursing. An infant that is continually on the lap or in the arms, does not get the same amount of healthful exercise which lying on the floor and tossing about permits, and is therefore not so well prepared to use its limbs: it is not likely to run alone as early as one that has been thus reared, nor as soon as the infant who has been made to use its feet and legs by continual foreing. The probability is, that a child too soon forced to walk has hent legs or weak ankles; or if it escape these evils, it will probably be less strong upon its legs, and less active at two years of age, than the child whose exercise has been brought on by more gradual and judicious means. Children have been known to run alone at nine months; the average age is between twelve and sixteen months.

Very fat heavy children should be carefully managed, while a delicate child requires equal caution, although from a different cause. A notion prevails that it is desirable to get a child carly to run alone, because it saves trouble and time; yet as much attention (perhaps more) is required when the infant shows a disposition to walk early, as when it walks late. For many weeks, every attempt it makes to walk exposes it to the danger of falls or blows against furniture. It has to learn to balance, and guide itself, to acquire a knowledge of distances, all which can only be done by frequent repetition, during which the cye and the hand of the nurse are as needful as cyer. These are better than her voice : the constant injunction to take care, and the exclamations of alarm which escape from the anxious guardian of a child learning to walk alone, are seldom beneficial; indced, where the child is naturally timid and cautious, they deter him from making serviceable attempts and spontaneous efforts, and encourage a hesitation which renders him incapable of accomplishing those efforts with the certainty which makes them pleasurable; whereas, if he is heedless, he learns to rely upon the warning sounds which greet his ear, and is slow in acquiring those perceptions upon which safety depends. An irritable child is made impatient by them, and an obstinate one defies them.

It is desirable not to bestow too much pity upon a child when suffering from a fall or a blow: practical experience of the effects of incaution must be acquired by personal inconvenience; but while the effects are felt, there should be neither blame, advice, nor indifference, but quiet assistance and moderate sympathy. A timid sensitive child requires to be encouraged to endure: a bold one, perceiving his sufferings to be disregarded, learns also to disregard the pain of others, and, finally, to inflict it. Some children are very angry when hurt; with such it is useful to discover that you distinguish between the cry of anger and the cry of pain.

None of the artificial means of teaching children to walk can be recommended; the leading-strings occasion all the weight to be thrown upon the chest, while the go-cart, though less objectionable, forces a child to continue on its feet too long at a time. It is a good plan to encourage walking, by placing the chairs and tables at convenient distances for the child to support itself by; it then sits down on the floor when fatigued, and in raising itself again, acquires power in the right way. Leading by one hand ought not to be resorted to until there is enough of strength and firmness to walk upright, otherwise the child is dragged along, swinging upon onc arm, with the weight of the whole body sustained by one side only. Lifting a child by both arms is dangerous, for it strains the ligaments, and often occasions injury to the collarbones; besides which, it gives pain. A child ought to be lifted by placing the hands round the waist. A child of a year old will raise itself by its arms, but it never prolongs or forces the effort to the production of pain: the only danger arises from a fall against the furniture.

As soon as a child can walk safely and comfortably, it is only necessary to provide against walking too much at a time when taking out-door exercise. While playing about the room, there is little occasion to guard against over-fatigue, because the child, guided by its feelings, sits or lies down on the floor at the first sense of weariness; this source of rest it ought freely to enjoy, while its constant change of position calls the various boncs and muscles successively into exercise, so that none are exhausted. When out of doors, this rest cannot be obtained, except in warm dry weather, and in fields or gardens: at other times, and in various situations, the nurse's arms must be the substitute; and she must remember, that, although the child can walk, the power is newly acquired, the bones are still soft, and the muscles delicate.

Most children arc disinclined to proceed along the

roadside with regularity, and prefer to sit down or to stand still: on this account they must be tempted along by a ball, a rolling stone, or any toy that heguiles them on : ingenuity must be set at work to devise variety, and apply that which is fitted for the purpose at the moment it is The exercise thus obtained will be more serwanted. viceable to the child, and less irksome to the nurse; for even at this early age, judicious employment of the senses promotes a healthy condition of the functions, and prevents the painful languor which follows upon the mere mechanical motion of the limbs. There are always sufficient objects of attraction, whether the excreise he taken on the high-road, in the fields, or in a garden ; but numerous and interesting as they are, the child soon ceases to observe and to enjoy, if the notice of his nurse does not assure him of her attention and sympathy. Where two or three children are together, attention and sympathy are still to be given; these will only have to be addressed to many instead of one, and to be adapted to the nature and age of each child.

Mothers ought, if possible, to superintend the out-door exercise of their children. The duty of doing so is almost universally consigned to servants, who, even though well disposed, are not prepared hy education to understand the nature of their duties. Children will learn much from the occasional example of a mother who is practically wise. It is not yet considered a duty among women to take daily walking exercise: household occupations and sedentary employments are regarded as more important. Yet surely the preservation of health is a duty. Want of time is urged in some cases as the obstacle, want of strength in others. In most, it is to be feared, want of inclination is the real impediment.

Unless compelled to remain within doors by the performance of some duty which could not be deputed to servants, mothers should make an exertion to go frequently out in company with their children, both for the sake of watching over their personal safety, and calling their attention to objects calculated to amuse their fancy and instruct their infant understandings. The health of the mother will in this manner be as much benefited as that of her children. The prevailing excuse of indispo-sition or want of time is often deceptious. Much of the common feeling of indisposition arises from neglect of exercise. It is necessary to repeat, that the muscles grow inefficient from want of use; exercise begun in moderation, and gradually increased, will restore them to the power nature intended them to possess. And what better motive for the undertaking than the benefit of the children ? what more delightful and salutary occupation than to direct and aid that which is to produce so much moral and physical health and vigour? Even these motives should stimulate the disinclined to shake off the lethargy of idleness. Trees, flowers, and animals, are works, great indeed, but so simple in their greatness, that they are peculiarly fitted to delight and advance the dawning faculties of children. A mother's tenderness and intelligence draw from these sources an increase of happiness; she may sow the first seeds of religion, by fostering a love of nature, which shall gradually be led up to the Author of Nature; while she herself derives the inestimable advantage of being associated in her children's minds with all that is beautiful, entertaining, good, and holy.

# SECTION III.

### MORAL GOVERNMENT.

DURING the first few weeks of life, happiness is solely derived from the healthy operation of the bodily functions. Until the senses begin to act so as to convey impressions to the brain, there can be no pleasure drawn from external circumstances. The activity of the senses, and the enjoyment produced, will be in proportion to the state of the health. An infant who is continually in pain, who

 $\mathbf{F}$ 

is either crying, moaning, or in a state of repletion or of exhaustion from the consequences of suffering, will be but little attracted by the light, sound, or motion, which first engage the senses of infancy. In no other instance, perhaps, are the influences of the physical condition so immediate and so evident. An infant, even of three weeks old, will exhibit a haggard grief-worn countenance, sunken eyes and shrunken face, painful to those whose experience tells them what these signs indicate. But the fair, plump, contented look of the healthy babe, speaks a language of comfort, prophetic of the approaching dawn of intellect. How early does such an infant smile upon its nurse, fix its eyes upon her with a look of awakening intelligence when she speaks in accents never addressed but to infancy, and reply with the little dove-like sounds only uttered by the healthy babe! The happiness or misery of this period of life is wholly derived from the physical condition, and the dawnings of the sentiments and the intelligence are in proportion to the health.

The general irritability caused by disordered functions, renders the impressions upon the senses even more painful than pleasurable; the disposition for enjoyment bestowed by the feeling of health is denied; the mother's voice, her smile, are associated with pain as much as with pleasure, and the affections are imperfectly and tardily aroused. As weeks pass on, habits form, and instead of a habit of contentment, there is one of fretfulness. An infant so constituted is either reared with an indifference to its continual crying and fretfulness, or with the apprehension which causes its nurse to be continually seeking how she may quict or prevent its cries. At the age when food alone appeases it, the babe is always eating or sucking; as it grows older, sugar, cake, &c., are superadded, with the addition of noises or rough exercise, and but too frequently some sedative or composing draught, which the mother believes herself obliged to adopt in order to procure the child needful repose, or the servant surreptitiously administers to relieve herself from incessant fatigue. When the time arrives that

restraints and guidance should be adopted, the fear of farther irritation by contradiction leads to a system of bribes, deceit, and coaxing; all the lowest sentiments of human nature are appealed to; and at two years old we have a selfish, wilful, ill-tempered child, with violence apportioned to its strength, and intelligence prompted by ill feelings. It is not to be supposed that these moral disorders belong exclusively to bad health. A healthy child may be selfish, wilful, and ill-tempered at two years of age, if injudicious treatment have cultivated the lower sentiments; but the healthy infant is predisposed to receive happy impressions, and enjoys the condition called good temper-a term which in infancy is synonymous with good health. The nurse has fewer temptations to mismanagement, and, the affections and intelligence being more healthful and active, moral mismanagement actually produces less permanent injury.

There cannot, then, be too much value attached to the physical condition of an infant; to the condition of the parent while pregnant and while nursing, and to the regulation of every particular connected with the health of her offspring. This being the first object, both in point of time and importance, the next consideration is the means of developing the moral and intellectual faculties.

The brain, on which the mental functions depend, is in infancy the least perfect organ. Only a few of the simpler instincts, as the appetite for food, are at first in any degree active. After the child is a few weeks old, he begins to exercise his senses, and the first traces of intellect and feeling are exhibited. But still, and for long after, the brain is in a tender and delicate state, calling for the gentlest treatment. No loud or harsh sound should therefore ever reach the ears of young children; no violent light should be allowed to come before their eyes; they should always be addressed in the least degree calculated to frighten them. These are the chief particulars of treatment which we are called upon to attend to, with regard to the mental system of children, during the first few months. Opposite conduct is apt to produce serious damage, and that of a very durable nature. There are particular cases and circumstances in which the value of kind and gentle treatment is greater than usual. Perhaps the infant may have derived from nature a constitutional irritability; or he may be accidentally pained by some derangement of his system. In these cases, caresses, gentle changes of position, and lulling sounds and movements, are of great consequence; while all loud singing, talking, and rough and sudden jerks, should he avoided.

For farther progress in the moral management of infants, it is in the first place necessary to bear in mind that the mental faculties, in their various degrees of natural strength, rest at first undeveloped, hut ready to be brought into activity in accordance with the respective circumstances which are naturally calculated to stimulate them. All of these faculties are designed for useful purposes, under the guidance of reason and moral principle; hut it may so happen that some of them are naturally in very strong activity, or are called into great force hy the circumstances with which the individual is surrounded, so that the character may ultimately bc of a very irregular and incontrollable kind. In moral education, it ought to be the first object of a mother to put the more lively faculties of her infant under proper regulation, or restraint if necessary, and so to evoke and train the rest, that, in the result, she may have the best character which nature admits of in that case.

Practically, the circumstances by which the infant is surrounded are sufficient to serve the whole end in view, as far as very young infants are concerned; for it is clear that, if a child, for example, be brought up in a scene where angry words are never heard, and where nothing of an unduly irritating nature is allowed to visit him, his own angry feelings, though strong naturally, must be in a great measure kept out of exercise, and consequently weakened; just as the same circumstances, by their soothing and pleasing nature, are likely to have an active and positive effect in hringing out his own kindest and softest feelings. In like manner, supposing that a child may have a strong natural tendency to secretiveness, and that he never witnesses or hears from those near him any thing but the most perfect candour and directness, his tendency is just as liable to he kept below the point at which lying and deception take place, as his opposite feeling in behalf of truth is likely to he positively encouraged.

The first duty, then, is for the mother to be and to do on her own part, as she would wish her child to be and to do; and to accommodate all other circumstances, as far as possible, to the same end, particularly as regards the selection of attendants. She must he on her guard against the delusive notion that an infant of a few months old is not capable of heing affected hy the conduct of those in whose arms he lives. Though unacquainted with words, he is perfectly alive to what may be called the natural language of the feelings, as harsh looks, loud and sharp tones, or the reverse. At three months, the smile of his mother elicits from him an answering and sympathising smile; and at the same age, an angry gesture will frighten him. And not only is he sensible of language of either kind addressed to himself, but also of what is addressed to others. An instance is on record of a child falling into fits in consequence of a violent altercation between his nurse and another person, which took place in his presence. An infant may possess such gentle dispositions that he will contract no disposition to quarrelling from seeing his elders always doing so; but this is a mere chance. The dispositions may naturally have a strong hent that way, and he will then he, as it were, in the very school calculated to make him a thorough quarreller. The more perfectly that the home of infancy is a home of peace and love, the chances are unquestionably the greater that the children will grow up creatures of gentleness and affection.

The earliest intercourse between a mother and her child is carried on hy means of the expression of the

countenance and the tones of the voice. The first language of an infant is the language of signs; these are at first involuntary, and indicate his wants and sufferings. After some time he begins to be sensible of the existence of external objects, and to distinguish his mother's face from that of all others. In this face he reads his first lesson. The child ascertains that there is one who takes constant care of him, to whom he can make known his wants and wishes; he looks, and she understands; he cries, and she hastens to his relief; he improves daily in the use of a language which he finds is intelligible to her, and becomes at length a little master of pantomime. He sees, too, that she looks differently at him, at different times, and that the tones of her voice vary, indicating pleasure, pain, approbation, and reproof. Thus, long before oral language is used, the mother and child have established a symbolical language of the countenance and tones of the voice, to which, if the child is sprightly, and the mother has a tact for it, gesticulation is added. The mother has perhaps used this natural language unconsciously, but she may do much to improve and refine it, and to extend its use in the developement of the moral and intellectual powers of her child. Expression of coun-tenance adds greatly to the force of speech; and as it is subject to the will, it can be cultivated and improved.

A mother should take care that every feature, look, and movement, corresponds with her feelings, and this without affectation. Let her feel as she ought, and then endeavour to look as she feels. Let her, when the occasion calls forth the corresponding feeling, cast upon her child a look of pity, of sympathy, of consolation, of composure, of interest, or of playfulness, giving to each a distinct character, while her habitual expression should bear the stamp of gentleness, patience, cheerfulness, and hope. When government and disciplinc are necessary, let the countenance exhibit authority, decision, firmness, disapprobation, and a determination to be obeyed, mingled, however, with entire composure and self-possession.

In infancy and childhood, the muscles of the face which give it expression are exceedingly pliable, and yield an almost involuntary obedience to the emotions and operations of the mind. In addition to the care which mothers should take to preserve a command over their own features and tones of voice, it is important that the same care should be exercised over the children themselves. By these means much may be done to mould the features into forms indicative of virtuous emotions. Habits of expression have a powerful influence upon the internal feelings. A smile, even if produced with effort, will assist in calming angry emotions. There need be no hypocrisy We adopt various methods of self-control, and in this. effect that by indirect means which we find by experience direct efforts of the will cannot accomplish. The effort to control our features aids us in subduing internal emo-This principle may be perverted, and applied to tion. the worst purposes, for all that is good is subject to abuse. The child who is early habituated to avoid disagreeable, sullen, fretful, and unkind looks, and whose affections arc at the same time cultivated on sound principles, will have additional sccurity given to the exercise of these affections, and a power of subduing contrary feelings, wanting to the child over whose features and modes of expression no such discipline has been exercised.

Great pains are often taken to cultivate the manners, and to give them an air of courtesy, respect, and kindness. The tones of the voice, articulation, pronunciation, and modes of speech, are made matter of early instruction. There is no doubt that all this has an influence in moulding the intellectual and moral character. The various expressions of countenance are as susceptible of control and discipline, and react on the mind with as great a force. They should therefore be formed into habits as well as the manners or the voice, for there can be no greater danger of offending against nature and simplicity in the one case than in the other.

The effect of these principles is fully seen in the change which takes place in the countenance of an uneducated deaf mute, after he has enjoyed a few weeks' intercourse with his companions in misfortune in an asylum. His features, expressions of countenance, and general deportment, undergo a wonderful transformation, and seem to acquire a new power. Catching by imitation the spirit of those around, they become instruments for the expanding mind to employ, and have no small degree of influence in forming habits of thinking and feeling.

It is neither necessary nor desirable to school children into studying the expression of their features. As their violent emotions should be repressed, so every expression of that violence, whether shown in voice, feature, or gesture, should be gradually checked; not thrown back to be indulged silently and in concealment, but in infancy by the mother's calm expressions of pity, regret, or condemnation, and in childhood by the same means, strengthened by rational appeals to the good feelings. A glance of the mother's eye is often sufficient to deter a child from error, a gesture to recall former advice, a word to overcome resistance or soften rebellion. This power must have been established from the first.

However much the gift of personal beauty may have been misused, and although it be confessedly secondary to moral and mental beauty, yet the charm of an agreeable and expressive face can neither be denied nor unfelt. Young children generally possess this charm; and if it do not remain in after years, it may be because the indulgence of bad passions or bad habits have marred it. It is obviously the mother's duty to preserve the best gifts of nature, and to endeavour that the pure affections, lively intelligence, and gentle sympathies they seek to cultivate in their children, should speak in their countenances as well as in their actions.

For some time a child is content to enjoy the sight of objects, but growth and increasing strength apparently inspire the desire to touch and to grasp. The efforts to do this arc for months uncertain and imperfect; there is no knowledge of distance or size; the infant reaches too far, or not far enough; too much on one side or the other; and when the hand accomplishes its intention, it has no power to hold or grasp the object of desire. Next comes the wish for possession. All who have observed the early manifestations of infancy, know that a child is not satisfied to touch or take hold: it wants to *have*. No matter how unwieldy the object, possession alone will satisfy. The gestures accompanying these desires are animated in proportion to physical strength and energy; the infant leans forward, stretches out its arms, kicks its legs about, sometimes with a little straining scream, not, however, of anger, but of anxious expectation. The cry of anger comes when the object cannot be obtained, or when it is suddenly removed.

Disappointment and vexation being expressed by the same means as hodily pain or hunger, it is not improbable that the attention which such manifestations have procured, leads the child to expect that crying will obtain all its desires. This impression should be removed, and a contrary lesson impressed. First, the infant should not be allowed to have what it cries for; and as the countenance and manner of the mother have been the means of awakening happy emotions, so they should express concern at the evidences of impatience. If the child desires an object which it may touch, the wish should be granted before it grows into irritability, yet not in such haste as to preclude a small excrcise of patience and forbearance. Instant and constant attention to the wants and wishes of children renders them exacting, violent, or fretful, and will even engender a love of command and impatience of control quite inimical to obedience. Playful notice, while the child waits, will at first serve to restrain irritable feelings. It is too much to expect an infant to await its gratification with no other occupation than expectation. This comes when time and habit have confirmed the certainty that the mother will attend to the wishes of the child; reliance upon her, and confidence in her love and truth, tending to confirm screnity of temper. The influence of love fosters the best feelings. Love is our moral sunshine.

An infant who is always surrounded by kind looks and gentle voices, not only imitates what he sees and hears, but all his emotions are of that happy character which inspires kindness. As months and days increase, his sources of happiness increase; he is prepared by his own physical comfort and the affection he experiences, to look upon every new object with confidence and cheerfulness; anticipating nothing but benevolence, he welcomes every body and every thing with gladness. Constitutional timidity is checked, and a habit of contentment formed.

An infant, when onee excited, often continues to ery after the exciting cause has ceased. To change the nature of the emotion should be the object; and where every thing is new and unknown, this is sufficiently easy. A pleasing sound, a bright object, will often suddenly put an end to a fit of anger. To prevent irritating circumstances is still more important. Uncasiness, however trifling the cause, disturbs pcacefulness, and it is from peacefulness that cheerfulness and good temper spring. When the feelings are thus prepared, trifling annoyances are after a while more patiently endured ; and as intelligence appears, there is a greater readiness to observe, and to derive happiness from external objects. Differences of temperament are early manifested; excitable natures must be moderated by calmness and gentleness; sluggish natures excited, yet never with violence. A fat, quiet, white-looking child, may give little trouble, and this condition is therefore called sweet temper; but it is quite as nearly allied to insensibility, which must be shaken off by the activity of the parent; otherwise, selfishness, and a love of whatever contributes to selfish pleasures, may spring up.

A young infant requires constant attention; but as time goes on, enough of this may be given, although the child be left (or apparently left) to itself. Thus, at a tender age, he acquires a species of independence, namely, that of finding happiness in himself and for himself. A babe of six weeks old, awake in his bed, is preparing for this independence; at ten weeks, he will have fixed his eyes upon some attractive object, perhaps upon his own moving fingers, and he is happily occupied. At a later period, when he can sit in a chair, or on the floor amidst his playthings, he will require the watchful glance of the mother, and occasionally a word or a little help, to assure him of her presence and sympathy. If the child be inactive and dull, then he will need to have his powers of observation frequently addressed and kept alive; but an excitable child is best left to wear out the livelness of his impressions upon a few objects, without interruption or any other stimulus than that which is innate, or aroused by the objects themselves. An infant with lively feelings and quick perceptions is more likely to be impatient and violent than one of slow perceptions and deficient sensibility, and will need a counteracting rather than an exciting power. He should not be hurried from feeling to feeling, and from object to object, but encouraged to dwell upon one.

Every office performed for a child should be done with gentleness and care. When carelessness pervades the general management, the child must be continually uneasy; he consequently gets the reputation of bad temper, and is deprived of those kind influences which can alone foster goodness. The close connection between physical comfort and moral developement ought never to he overlooked. Perhaps the most difficult period of infancy is that in which the want of speech is felt, but without the power of utterance. The intelligence is often great ; the sentiments active ; wishes and wants are intensely felt, but the means of expression are imperfect, and often unintelligible. The more intelligent the child, the greater is the probability of violent emotion following the unsuccessful attempt to understand and be understood. This is the time when the mother's influence, and the experience she has gained of her child's character, will come into use. A child who cannot make himself understood usually screams; it is in vain to attempt to silence him by giving him something that he does not cry for ; neither will any good purpose be served by talking to him while crying : while violence is at its height, calmness and silence are the best reproofs. Besides, when a child is screaming, the voice of the mother must he elevated to loud or shrill tones in order to he heard; such sounds can only be associated with scolding, or with a noisy mirth, ill hefitting the feeling with which she should witness violence. The object is to show that screaming is of no avail, and that some hetter means must he adopted to express and obtain its wishes; there will be many hursts of anger before this is effected, but no evil need he apprehended. While the mother is firm and calm, the child will not cease to love her, but, on the contrary, her aid will be felt upon this point quite as much as in matters of bodily suffering.

It is not unusual for a child so treated to soften into tears of real grief on finding that his mother's countenance looks sorrowful, and so to forget the cause of his excitement. It is always better for the parent and child to be alone together during such scenes. A child of a year old, when crying with anger, will often look round on his observers with an air of defiance or determined resistance, or, conscious that they have no sympathy, relapse into stubhornness. However erring, he should at no age feel that he has lost his mother's sympathy; and on the slightest evidence that grief has succeeded to anger, she must be ready to encourage and to aid. A shake of the head, a firm hut gentle no, silence, or placing the child in solitude, will sometimes calm the passions; but this must he cautiously tried, lest it cause terror or greater violence. It is an error to induce children to cease crying by pro-mising them what they want as soon as they leave off; for if they can understand the words, "*when you have* ceased crying, I will give it you," they can quite as well comprehend, "you cannot have it, because you have cried;" hut when anger has subsided, amusement must be provided, so that the child shall not relapse into fretfulness; the object heing, not punishment, but to show the child that violence will not obtain its wishes. It is difficult to discover how children acquire the power of interpreting language, hut they do so long hefore they can use it: tone of voice, and expression of face, assist considerably; strangers, particularly when not accustomed to children, being rarely understood by them. It seems desirable to accustom a child to listen to a few words from the mother relating to familiar objects or persons, or to some of his own actions, that he may be habituated to comprehend, or at least to endeavour to do so; and he might be questioned by words and signs, so that he shall reply by gestures, and by such sounds as he is able to utter. As the violence of this period of childhood arises so much from want of language, pains should be taken by the mother to establish between herself and her child some means of communication that will smooth the difficulty.

Constant warnings, threats, or entreaties, have a most pernicious effect, when the obedience they would obtain is not insisted on: the child, becoming accustomed to them, ceases to regard them, and imperceptibly discovers that words do not really mean what they pretend to convey, and thus a disregard for truth is first taught. When a prohibition is given, it should be adhered to; it will be necessary to repeat it many times, because the tender mind cannot be expected to retain ideas, which may immediately influence conduct; but the repetition must be made seriously and patiently, not by an angry ejaculation or reproof uttered in haste and irritation. The off-repeated "let that alone," "be quiet," "don't do so," "how naughty you are !" only conveys that something is wrong; no impression is made except one, characterised by some annoyance felt equally by both parties; and no fixed and definite experience is obtained.

A mother should always endeavour to ascertain what qualities or tendencies are most injuriously active, and, as far as possible, suppress them by a gentle course of treatment. At the same time, she should observe what are the weakest points of character, and if these belong to the good qualities of the mind, let them be cultivated and exercised with all the diligence which she can command. For example, if the child incline to be destructive, by breaking toys, killing flies or other small animals, abusing his eompanions, and so forth, it is of importance to eheck and suppress this dangerous propensity, and to rouse into activity bencvolenee and gentleness of manner in its stead. If the child show a deficiency in any useful quality, as memory, language, power of observation, and so on, these should be frequently exercised, because exercise strengthens; and the longer that the exercise is continued, the power of performance becomes the more easy and agreeable. In a word, *check bad propensities*, *encourage good ones*, and in either case with gentleness and moderation, according to circumstances.

It is important to recollect that the vicious or disagrecable tendencies of children are at first weak, and in most instances may with little trouble be remedied. But as the disease is superficial, the corrective should be light. It should be the object of the mother to prevent rather than to cure. If she keep her child from evil communications-that is, associating with persons, old or young, who are likely to sully the infant mind, and nothing is more easily done-she will be spared days, weeks, perhaps years, of toil, in cradicating the mischievous tendency which has been excited. But in the worst circumstances that may arise, do not on all occasions oppose and correct. The child should not be aware of your intentions to correct it systematically, for he soon discovers he is to be thwarted, and is as ready for combat as his opponent. In this manner, injudicious correction has spoiled many children, who might otherwise have been the pride and solace of their parents in after years.

Cleanliness, order, and general propriety of demeanour, are to be ranked amongst moral virtues, and their foundation is to be laid in childhood. Parental example will do much, whether manifested in the observance of regular hours, of neatness, delicacy, genuine courtesy, and the ease which always accompanies true refinement. Children cannot be taught what is termed manners without rendering them affected and insincere, for these are usually artificial and conventional; but they may be practised in the true elements of politeness, nancly, self-respect and a delicate regard to the rights and feelings of others, in contradistinction to the mere desire of admiration, or the selfishness which has no regard for opinion, and which only prompts to individual gratification.

It is desirable that children should observe a cleanly and delicate method of eating and drinking. While they are too young to feed themselves, their food should be given them with attention to neatness and comfort. As soon as they can assist themselves, continued care will be necessary to accustom them to the use of the spoon, fork, and knife, and also to arrange the food on the plate, so that it may be eaten with attention to the method usually observed; the meat, vegetable, and bread following each other in regular succession, with a proper proportion of salt. Drinking or speaking with the mouth full, putting the fingers into the plate and mingling the food, should be checked at first.

Conduct at table is also worthy of attention. Children are often inclined to play with the different utensils, and so to break or overturn them; this habit, with that of reaching for what they require, putting their elbows on the table, sitting awkwardly, and other uncouth demeanour, often interrupt the comfort of the family meal. A love of order is so natural to some children, that any change from their customary routine, or in the usual place of the different objects around them, has been known to excite them to anger or tears. There are other minds, however, in which a love of order must be created.

Mutual confidence should be a governing principle in the communion between parent and child. This cannot exist where the former acts only as a judge and lawgiver, who acknowledges no compassion, no sorrow, who cannot weep and hope with the offender. The few words, "I am sorry that you are angry," "try to be good, and I will help you," "wipe away your tears, and let me hear what vecues you," are more likely to overcome error, or turn away wrath, than stern commands or cold disapprobation; for this treatment does not conceal that there is error, or disguise its evils, while it differs totally from the compassion which fondles or coaxes, and hribes a child to soften its violence or withdraw its opposition. Are there not moments in the lives of all, when a confession of error to a friend whose sympathy, consolation, and encouragement, are certain, lessons the bitterness of self-accusation and confirms good resolutions ? Are there not also moments, when the want of such a friend, or the reproaches and cold contempt of those who possess a right to condemn, hardens the heart, and converts a wavering repentance into dogged perversity? If, then, at an age when experience and self-dependence are so influenced by the denial of sympathy and the administering of stern reproach, how much more must the tender huds of infantine fcelings he nipped and withered by the chilling frosts of severity! Nothing can he more beautiful than the conduct of a child reared under the influence of love. It enters among strangers unabashed and undismayed, ready to welcome and be welcomed, secking happiness, and prepared to find it in every thing, and with every body; so willing to be pleased, that every gratification, however trifling, is prized and enjoyed; habituated to cheerfulness, yet so full of the sympathy it has so largely enjoyed, that, however gay, it does not lose sight of the comfort or sorrows of others, however amused, there is no selfishness in its enjoyments; the mind is active and energetic, and the whole character beaming with intelligence and happiness.

Reverse this picture, and see the child who has been governed hy fear—a suspicious timid glance, an endeavour to escape observation, no spontaneous prattle, no words or actions pouring out the unrestrained thoughts and feelings; nothing truly enjoyed, because there is an undefined fear of doing or saying something which may provoke rehuke; or if there be enjoyments, they are received in silence, and in that solitude of heart which leads to selfishness. Candour is a quality to be encouraged in children; indeed, it is natural to them; their helpless dependent nature leads them to seek and bestow confidence; they have no reasons for concealment but such as fear induces. If it be needful, as assuredly it is, to learn the character of a child's disposition and feelings, to trace out the beginnings of error, to observe how impressions are made, and what are their effects, how can this be done when fear influences the child to conceal, to misrepresent, to affect, and to deceive? To a young mother whose career of maternal duties is but just commenced, it may seem unnecessary to dwell upon the importance of an affection which she believes is already too full for increase; but she must look forward to the time when she will be surrounded with little ones, of different dispositions, the novelty of her situation worn off, and youthful spirits less joyous and elastic. When pecuniary means are not so equal to the support and comfort of many as of one, when cares and anxieties of all kinds increase, then comes the time for the exercise of perfect love, when it is most powerfully taxed, and when it is most likely to give way. The active mind is more liable to irritability than the indolent; therefore the best informed, the most ardent, anxious, and wellmeaning parents, are the most likely to forget their previous convictions, and in a moment of impatience to inspire their children with fear, and thus to shake the confidence which the child ought to repose in its parent. So true is it, that before we can govern children, we must be able to govern ourselves.

Obedience from child to parent is justly insisted upon; but it is not sufficiently considered that the means of establishing it depends more upon the conduct of the parent than upon that of the child. Obedience, to be of any use in forming goodness, must be based upon love, respect, and confidence. It is by no means unusual for children to be told that whatever their parents do or say is right, that they must be loved and looked up to as patterns, and obeyed without hesitation. Now, instead of *telling* them this, it would be wiser to make them *feel* it; and by the exercise of kindness and gentleness to all, industrious attention to duties, strict and universal observance of truth, to earn the love and respect we would

95

command, and, by example and practice, accustom the young to witness and experience the effects of the virtues we recommend. The feelings of children may be subjected to habit as readily as their appetites, and they can only be habituated to goodness by continually feeling its effects. The serenity and happiness produced by kind treatment nourishes love to others; example shows how that love may be made active. The child who sees that its mother's occupations have a reference to the advantage or welfare of others, that they contribute to the comfort of all, and that she finds pleasure in these occupations, has learned a practical lesson in benevolence; and if it seek to act upon what it has learned, its efforts should be gratefully received : no matter whether they are serviceable or not, the *intention* is the thing to be valued. It exercises the benevolence to employ a child in little services, such as fetching an article that is wanted, putting things in their places, picking up litter, &c.; when cheerfully executed, they should be acknowledged, and if unwillingly performed, thanks are still due; but the child might be made to perceive that a willing service is most prized.

A mother gains nothing, and loses every thing, by making a child *fear* her. Fear may compel obedience, but it will establish no real goodness, no spontaneous wish to do right; on the contrary, commands will be evaded, whenever it may be done with impunity. There will be concealment of thoughts, feelings, and actions; and cunning and deceit will take the place of truth and honesty, and the mother will never have any influence, nothing but temporary power. The only fear a child should feel, is the fear to do wrong; not, however, because it dreads punishment, for this is a low debasing motive, but because it would not pain those it loves. The fear of a mother's sorrowful countenance will be a more efficient check, a more healthy influence to a *young* child, than the fear of ber angry looks or her angry voice. Confidence in a mother is very necessary to obcdience, and can only be obtained by such a practice of truth and steadfastness on her part, that there is a perfect reliance upon her. A child has little or no experience of the consequences of his actions, nor will he with the best guidance always consent to take warnings and prohibitions upon trust; but when he is never deceived, when promises are never broken, threats never made in vain, there grows up a faith in the mother that leads a child to respect and to obey. To gain this faith, this perfect reliance, the mother must be consistent, equal in temper, the same to-day as yesterday, otherwise the child becomes confused, does not understand why the permission of yesterday is changed into a denial to-day, or why the smile of affection is now altered to the tone of irritable complaint.

Falsehoods of a very fearful kind are sometimes uttered to deter children from errors. Threats of old men and black men, and other like terrors, false and true, arc resorted to, to frighten them into obedience. It is ascertained that death, fits, idiocy, or insanity, have been the consequences of such inhumanity. But setting aside the probable chance of such calamities, there are other certain results: if the child discovers the falsehoods practised upon him, he becomes boldly indifferent to the threats, is more disobedient and wilful than ever; disbelieves all that is said to him, and, finding no respect for truth in others, has no regard for it himself. What becomes of the timid child? He lives in a state of fear of he knows not what; the sight of a strange face or a new object fills him with terror, for it may be one of the horrors with which he has been threatened; his faculties are all deceived, and diverted from their proper objects; he lives a life of fear and doubt, unable to distinguish between what is truc or false, real or unreal, good or bad. He loves nothing; it is well if he does not hate. But he is not the more obcdient.

The exercise of any sort of cruelty towards children, renders them insensible to the sufferings of others. And this is a reason why they should not be subjected to personal chastisement. Imitation being one of the strongest faculties, the child who is beaten also uses blows to effect his purposes. There are many parents

who, upon ealm reflection, would shrink from inflicting a personal correction, or encouraging violence, yet are continually fostering a passion for fighting. For instance, a ebild falls down and hurts itself against the floor or the furniture, and is immediately urged to beat them. This is the first lesson, practically showing that revenge is to he indulged. Above all things, let the mother heware how irritability hetray her into a slight pat, a twitch, or a gentle shake: if indulged, they inevitably lead to something more, and personal correction becomes a regular habit. When once recourse is had to hlows, nothing else is left; the child gets hardened to the sense of pain, indifferent to disgrace, and before committing a fault, does not consider whether he is about to do right or wrong, but weighs the chance of escape, and the proposed gratification against the pain of a heating. There is a quality in most minds which resents injustice and feels disgrace. It is a valuable sentiment, and gives that selfrespect which assists in elevating the character, and preserving the individual from every thing base and degrading. When this sentiment is powerful, a resentful feeling is aroused hy violent correction, not the humility which is necessary to a sense of error and consequent amendment. Where it is not active, chastisement extinguisbes all feeling of self-respect, of honest and worthy amhition, of generous desires, and establishes in their stead a taste for all that is base, low, and sensual. Every eorrection that is inflicted in anger bears the appearance of revenge, and seems intended to gratify the offended feelings of the parent, not to amend the child. If a parent is angry, she must wait before she speaks; this will give her time for reflection, and then she will seldom err. It is a hahit that should he perseveringly practised by every irritable nature : many persons act wrong upon impulse, who are right upon reflection ; with such, reflection should always precede action.

No man submits to a blow; he considers it the heaviest indignity that he can receive; while to strike a woman is deemed so great an act of cowardice, that few persons, however debased, are found guilty of the practice. Her weakness is her protection. How comes it, then, that children are subjected to a degradation which a man revolts from enduring or inflicting? The nature of a blow is not altered hy the person on whom it is inflicted, except that the physical weakness of the one party reflects upon the individual who deals the blow: the influence is, that the *parent* who inflicts personal chastisement is more degraded than the child who receives it; and though the child cannot *reason thus*, he *feels thus*, together with a sense of injury that must hreak up all filial respect and confidence. These remarks apply to a later period than childhood; but the heginning is then, and the parent must heware of first steps. She must guard her own habits as well as those of her children.

Some children early evince a love of cruelty : they torture insects; they destroy wantonly, and pull in pieces, break, crush, and tear, every thing that comes in their way. To cultivate the opposite feeling, as has been already mentioned, is the mother's part; she must prevent every circumstance that can encourage the propensity, manifesting dislike at its exhibition. No better check can be found than occupation, giving a child something to do that will employ its energies harm-lessly. She ought to show it how animals should be treated, first making use of a toy, teaching the child to feed and caress and protect the representation of the dog or horse, and taking it away on the first exhibition of unkindness. When the child can comprehend her, she should relate tales of mercy, never of *cruelty*, even when the imaginary delinquent is punished; for where there is a propensity to cruelty, the mind receives pleasure in listening to its details; indeed, it is seldom prudent to tell children any stories which illustrate misconduct; all their early ideas should be of goodness; their curiosity is often so much excited, that they are impelled to do the things they hear of, in order to ascertain the facts. Neither is it wise to excite the feelings by tales of deep sorrow or suffering : indifference or unhealthy sensibility too often succeeds such excitements, and compassion and tenderness are exhausted upon fiction, instead of being exercised upon realities. No child should be allowed to witness the death of trapped mice, rats, the drowning of puppies and kittens, &c.; they cannot be made sensible of the reasons for their destruction; they do not know the nature of suffering and death, but only derive amusement from the spectacle, and learn to look upon pain as matter for sport and pastime.

Love, then, should be the impelling reason, the directing power of education. Where love influences the parent, the children of a family will be actuated by the same spirit—a spirit subversive of selfishness. Dissimilar as all characters are, different as all intellects are, and different as all situations are, the great duty of life is the same—the promotion of the welfare and happiness of our fellow-men. There are few errors, perhaps none, which do not affect the happiness of others as well as of ourselves; each individual who improves himself, improves society; and every mother who rears her child aright, aids the universal progress towards excellence.

## EARLIEST INTELLECTUAL EDUCATION.

The intellectual education of children, until two years of age, consists in preparing the senses for the reception of correct ideas of things. The rudiments of all learning are acquired by means of the sight, hearing, smell, touch, and taste; as these increase in strength and activity, new ideas are gained, and new impressions made. The operations of the senses are so closely connected, that correct notions cannot be at first acquired on any subject by the action of one sense only. Touch confirms or corrects ideas of form, texture, and substance; and we find that the blind employ this sense to acquire the knowledge that cannot be obtained by vision, while signs and gestures are addressed to the deaf, and employed by the dumb, to express what speech usually conveys. Infants must be permitted the free use of the senses, and be fur-

. . . .

nished with the best means for promoting their voluntary and healthful employment : direction is all that is needed from the parent, while imitation is the faculty she will chiefly appeal to, always keeping in mind the delicacy and excitability of the organs. She will find that at a very early age there are decided indications of a preference for certain objects; and though she may contribute to happiness by indulging a predilection, she ought gradually to endeavour to direct the attention to objects which will generally employ the faculties. For example, if a child show most delight at seeing colours, she ought not to foster this use of the eye only, but direct it to discriminate form, dimension, arrangement, and numbers. It is natural to encourage that which is most easy and pleasurable, but the object of the first steps in cducation is to prepare *all* the powers, not to perfect *one*. Next to bodily health, employment is the source of an

infant's happiness, and one of the means of developing its moral nature. The love of employment is an inherent desire or instinct; and it remains to be considered how this strong desire for occupation may best be satisfied and directed. First, objects must be found for its exercise which are harmless, of no value, or not easily injured, and which shall address the eye and the touch, or the ear and the touch. The inclination to carry every thing to the mouth renders it difficult to provide proper means of amusement, but much may be done by a little ingenuity. A coloured silk or cotton handkerchief, for instance, is to be met with in every house : having variety of colour, and being capable of variety of form, the eye is delighted; its softness gratifies the sense of touch, while its yielding nature permits it to be shaken, twisted, whisked about, offering endless excitement for the exercise of the hands and arms. As the power of observation grows, the mother may fold the handkerchief, when the child will watch, and next imitate. A piece of broad ribbon will give a variety to the entertainment, and the crumpling and folding of paper changes its character again. A bag should be prepared in which to store every fragment that

can delight without hurting an infant. There are articles in every house, which, if gathered up and applied, would spare money, time, and temper—for example, fcathers, shells, buttons of every variety, cotton-winders, corks, cards, coloured beads, bits of silk, ribbon, and printed cotton, with many other nameless matters. One precaution is neccssary-that every article that can be swallowed should be secured upon a string, so that they may be moved freely upon it. These things will at first only be turned over, tumbled about, shaken, rolled hither and thither, put in and out of the bag: as soon as this has become wearisome, and there is no more spontaneous application of them on the part of the child, the mother may arrange them in certain forms or according to colour ; in short, make any application of them likely to attract. Then she may place them by number-one here, two there, next three, &c., or she may raise cotton-winders, corks, or cubes of wood, one upon the other, or distribute them in squares, columns, &c. All she has to observe is, that she conveys only one idea at a time, that she never insists upon the continuance of a pastime one instant after it has become irksome, nor worries a child from object to object, but leaves the child free to imitate, alter, or otherwise apply the idea, since something may have been suggested which it will benefit the child to work out, and so raise him above the mere imitator. She has only to give the direction: suggestion is her province equally with example.

A book with cloth leaves whereon to paste prints, is a source of unfailing pleasure; it cannot be torn like paper, and gives the means of associating things with their names. Representations of domestic animals, birds, insects, fruits, vegetables, utensils, and furniture, are the most desirable, because they are seen in their realities; while the power of cutting out with the scissors is another admirable means of addressing the faculties, quite worth a mother's cultivation. A very rough resemblance satisfies a child; and the use of the pencil and scissors, or a reference to prints, assists in illustrating a story or a fact,

which without such aids is often uninteresting and unintelligible. Objects that fit one into another, exercise the hand and the eye, such as a box with a sliding lid, a piece of wood with holes, having corks corresponding in size, a basket to be filled with cubes of wood and carried steadily; these, and such as these, also act as trials of patience. A box with compartments, in which shells, counters, beans, beads, cubes, and triangles, &c., could be arranged according to size, form, and colour, is a safe and desirable toy when the child has ccased to put every thing to the mouth. It is almost unnecessary to recommend a box of bricks, ninc-pins, a ball, a doll, a cradle, As soon as a toy has ccased to amuse, it should be &c. put away, and, if it no longer excites attention, kept out of sight until time enough has elapsed to make its novelty again attractive. A slate and pencil are usually welcome; children are delighted to imitate the occupations of older persons, and are happy in believing themselves to be reading or writing. When children are beginning to articulate sounds, it would assist them if familiar objects were pointed out, and, at the same time, the name of each distinctly pronounced. The ear would thus be instructed and the imitation aroused. When listening earnestly, a child's lips and tongue may often be observed following involuntarily the movements of those of the speaker, and so acquiring the first principles of articulation. The deaf and dumb are taught to speak by directing their attention to the position of the lips, tongue, teeth, and larynx of the speaker during utterance. The same means may be employed to overcome the difficulty in pronouncing certain letters experienced by some children. Thus, the c and k are often sounded like t, as took for cook, tiss for kiss. If at four years of age articulation is not perfect, a child ought to be systematically taught to pronounce correctly.

A child will not always put a toy to the purpose for which it was intended; but provided he does not destroy it, this exercise of invention is advantageous, and it is for this reason that fragments are more agreeable than the most perfect toy which has but one action. Children are usually fond of destroying and of constructing; if they have not materials for the latter, they will make them out of any thing that first offers itself. Many are called mischievous who are only impelled by their nature to construct, and who, having no employment found for their natural activity, create it for themselves. The little articles above enumerated may be made at little cost; and in this department of infant training the father may give important aid. A child having no experience of its own strength, does not know what can and can not be hroken. nor foresee the effect of its own actions ; while the constant injunction to take care, the directions not to do this, and to beware of that, so perplex, irritate, or alarm, that there is no enjoyment in the plaything, and the pastime ends in mechanically looking at or moving it without benefit or pleasure. If allowed to destroy without caution or care, the first step is taken towards reckless wastefulness. The only care to be expected from a young child is abstaining from direct violence, and the endeavour to gather his playthings together, and put them by in the box, drawer, or cupboard allotted to them; and even in this he must be assisted, for when amusement is over, the interest in them is over also, and the child cannot be expected to understand the utility of order till he has had experience of its advantages.

We do not mean that children should be *taught* to play, or that their faculties should be systematically put to work; the object is to furnish the means of employing that activity with which they are so largely gifted, so that it may not be used injuriously to themselves or others, but be turned to the development of many of the mental qualities. Neglected children exhibit melancholy examples of the misapplication of their early powers. The well-worn adage, "Idleness is the root of all evil," applies to infants as well as to adults; with this difference, that their idleness is not a matter of choice, and that, intellectually as well as physically, they are dependent beings.

The playthings of children may he made serviceable in

giving them notions of property. Furniture, utensils, books, and the ornaments of a house, offer constant temptations to the curiosity and activity of children, and are often materially injured by them; they are continually infringing positive commands when they meddle with them ; but if provided with proper objects of amusement and observation, if they be repeatedly shown that these objects are their own, but not the furniture, the temptation to err will be less. Besides which, there ought to be as scrupulous a regard to the property of the child, as is required from him with regard to the possessions of others, while the understanding may be strengthened by reserving some few articles which can be lent when *asked* These should be kept apart, and over his own toys for. there should be perfect power, while they are not applied to injure other people. When there is a determination to destroy, no new toys should be bestowed, but it is scarcely fair to take away those already in possession ; an article once given becomes property, which the owner cannot be justly made to resign. No moral law should be infringed, because a child is in the power of its parents: if so, the rule is admitted that authoritysuperior strength-in short, whatever constitutes power, may do wrong at its pleasure. Children should feel that their parents are their protectors, who will not only rescue them from the danger of the moment, but also foresee and prevent evil. Having felt this in all that regards comfort, health, the allaying of hunger and thirst, alleviation of pain, &c., they will soon make an instinctive moral application of the protective power and inclination.

<sup>1</sup>Telling stories is an inexhaustible fund of amusement; and, fortunately, no one, however deficient in invention, need be at a loss, for the child is best satisfied with the simplest narrative, simply because he can understand and sympathise. He is delighted to hear that a little mouse came out of a hole, and carried some crumbs from the floor to his little hungry children at home. This may be related in more detail twenty times in the same *words*; and "tell it again" will follow every repetition. Tales are

better told than read. Indeed, there are very few publications simple enough for *very* little children. Every mother should give attention to the accomplishment of telling a story; it is a powerful instrument for the pro-duction of good, when wielded with discretion. She should not make too much use of the wonderful, none of the terrible, the pathetic occasionally, the benevolent more frequently; but she must not always address the sentiments and affections. Simple facts illustrative of the habits of animals, birds, insects, trifling details of common events, such as of the doings of the man while making a chair or painting a house, or of a little girl who gathered wild strawberries, and running home very fast, was quite out of breath-such are also very suitable materials for story-telling, to be embellished by descriptions, and lengthened out by words rather than by too many or dissimilar ideas. Verse and song should bring their charms also. Most children are caught by versification, and by the melody of rhyme, long before they understand words; the effect of soft vocal music seems instinctively acknowledged in that maternal lullaby which forms a part of all national music. It is scarcely necessary to remark upon the various sentiments and faculties which may be thus healthily addressed, nor that the child may he kept from bodily fatigue during the recital of a tale, while the mother may ply her needle, or pursue other domestic occupations.

In telling stories, it is well to divide them into those that have happened, those that might happen, and those that never could happen. The last should be reserved till the understanding is advanced enough to make something like a distinction between the possible and the impossible. A love of truth is imperceptibly but surely advanced by impressing its importance upon the intellect as well as upon the sentiments.

Children indulge their imaginations by pretending to be other people, and performing a series of events which they have seen or heard of, or only supposed. They readily convert chairs into horses, houses, &c. and soon become so identified with the creations of their fancy, as to be greatly disturbed by any interruption which recalls them to reality. When much given to this self-deception, they will sometimes defend themselves from the charge of having said or done wrong, by asserting that they were then somebody else. A mother must never admit this defence, however ingenious, nor allow the slightest approbation of the ingenuity to escape her. There can be no evil from this exercise of the imagination, provided there is no mischievous intention; on the contrary, the real character of the child will frequently be more perceptible. The prevailing sentiments will thus often manifest themselves; the benevolent will enact deeds of kindness and generosity; the violent will perform deeds of arms, or of punishment, or of contention; the timid will discover their fears, and the hopeful their desires. Dressing in a fancied character is a harmless adjunct to these sports of the fancy, and in this case taste and ingenuity may be cultivated; but where the object of the child is to obtain admiration, and not to excite mirth, or to increase the reality of his personification, he should find his failure in the indifference of the bystanders.

Out-door sports in fields and gardens are dependent upon the weather. Gathering wild-flowers, forming them into nosegays and garlands, wearing daisy chains, and stringing berries, the spade, the barrow or cart, the ball, and the hoop, are universally known. Here, as in the house, the mother must occasionally join the sport, suggest, and sympathise. Playing in and with the dirt for no object, should be discouraged; it leads to nothing useful, and gives a disregard to cleanliness. Digging and raking may soil the clothes, but, as the first step to the cultivation of the earth, the end justifies the occupation. In a garden, as in a house, there are means of imparting . notions of property; and there should be an endeavour to give a clear understanding of the flowers which may and may not be gathered, and the spots which may or may not be played in.

A fear of insects and reptiles is very prevalent amongst

adults, and especially females, and may in most cases be traced to the impressions made in carly childhood; it leads to much eruelty and needless destruction of life, while it deprives those who arc under its influence of a large share of delightful and profitable information. The innocent pleasures to be derived from flowers, trees, and all else that adorns the country, are converted into fear and pain, by the dread of the insects and reptiles that dwcll among them, and which, in truth, contribute to their interest.

A child should be taught to avoid wasps and hornets, not to handle bees, and not to sit down on ants' nests. But, at the same time, let the ingenuity and industry of these insects be pointed out, so as to raise emotions of pleasure in the infant mind. A little attention in this respect would greatly improve the intelligence and taste of the child, and, at the least, prevent it from feeling disgust or aversion in looking upon some of nature's most interesting works. To bad training in infancy, we have to ascribe the loathing which is usually felt respecting toads, spiders, and many other creatures, whose uses and economy ought to be the subject of delightful contemplation. We say to all mothers—lose no opportunity of cultivating in your children a perception of the useful and the beautiful, whether in nature or art, for on this may be founded the correct habits and tastes of after years.

*Telling* ehildren they must attend and observe, is of no use whatever; they do not know why they should learn; they have no wish to learn, or rather they have no wish to study; but when they have continually derived pleasure from observation, they will observe from inelination. On first being put into a swing, the ehild has no notion what it will feel; but when it has ascertained the motion to be pleasurable, the exercise of the swing is associated with pleasure. The use of the faculties undergoes the same process; as soon as the child is eonscious of the pleasure their exercise affords, he voluntarily applies them.

By endeavouring in this manner to amuse or delight the tender perceptions of infants, mothers will have performed an important part of their duty, and further than this, as respects instruction, they must not at present go. Under two years of age—or even under three or four, ac-cording to circumstances—children should not be incited to acquire any species of knowledge which requires a considerable exertion of the intellect. Attempts to teach very young children to read, to repeat answers to catechisms, &c., are highly blameable. As repeatedly stated, all that is hrought under the notice of the infant should excite joyous conceptions in his tender mind, and gently encourage the growth of those habits which are an ornament in youth as well as later years. Children being the creatures of imitation, should, hy all means, be reared only hy female attendants who possess an equable temper, and will study to cultivate correct sentiments and hahits in their young charge. For the same reason, children should not be allowed to associate with servants who talk coarsely or indelicately. In those parts of the country where a vicious provincial dialect prevails, female attendants should, if possible, be procured from a district where the language is more correct; and if mothers are unable to incur the expense of doing so, they should endeavour, by personal attendance and care, to compensate the deficiency. Let mothers he assured that they cannot commit a greater error in the rearing of their children, than assigning them to the charge of incompetent nurses and attendants; for thus hahits are ingrafted which no discipline or education in after years can altogether eradicate.

It may he asked, whether there should be any difference between the mode of rearing male and female infants. We answer, none at first. The mental faculties of both sexes are radically alike. It may, however, he useful to mention, that hoys are usually more difficult to rear than girls. It is allowed, for instance, that they are more liable to convulsion fits; but this is a point which we leave to the discretion and advice of the physician. As infants approach two or three years of age they will have a tendency to amuse themselves in a manner befitting their sex. A taste for nursing seems a strongly planted passion in females, and will readily demonstrate itself in the fondling aud dressing of dolls. This is a sentiment which should be encouraged by the mother or nurse, not only because it is natural and innocent, but because it leads to careful and tasteful habits. Many women will acknowledge that their taste for neatness in attire was first cultivated by the attentions which they lavished on their dolls. But this matter ought strictly to be treated of in an advanced work, and it is only necessary here to make it the object of a passing hint. Boys will, in the same manner, exhibit peculiar tastes and tendencies, which will admit of similar regulation.

We now conclude the present treatise. At *two*, or, it may be, *three*, years of age, infants pass imperceptibly into a condition of mind and body which calls for a more enlarged course of treatment than that to which they have been previously subjected. Now should commence that species of training which is always best carried out *socially*, or with respect to a number of children together, either at home or in the infant school, or both. For information on this branch of instruction, we refer to the work which follows the present, in the EDUCATIONAL COURSE.

# SUMMARY.

[The number of the page directs to the place in the book where the point is discussed.]

#### RULES OF SELF-GUIDANCE DURING PRECNANCY.

Let the future mother remember that the constitution of her offspring depends on natural circumstances, many of which are under her own control—(5.)

Study and obey the laws which regulate health-(5.)

Maintain a serene mind and an even unruffled temper—(7.)

Regard child-bearing as a natural and not a discased condition, and dismiss an unnecessary and hurtful dread of it—(7.)

Suspend all the severer eares of life, and avoid the causes of extraordinary excitement, danger, and alarm-(9.)

Live on nourishing but simple and moderate diet, with few or no stimulants—(9.)

Take regular and gentle exercise every day in the open air-(10.)

Continue, as far as possible, the ordinary occupations of life-(11.)

Endcavour to repress any tendency to nervous excitement -(12.)

#### RULES FOR TREATMENT OF THE CHILD AFTER BIRTH AND BEFORE WEANING.

Give the breast within twelve or eighteen hours after birth, at latest-(13.)

Foment the breasts with warm water if the milk does not flow ; avoid rubbing the breasts with spirits-(13.)

If there be too much milk, drink little, and take opening medicine-(13.)

As a nurse, wear easy dresses about the bosom and eliest-(13.)

Keep down the tendency of the abdomen to enlarge, by exercise—(13.)

If the nipple is small or turned in, have it drawn by an older or stronger infant, not by artificial means; but let the new-born child have the first milk—(14.)

Choose a hired wet-nurse (when required) nearly of the same age with the mother, like her in constitutional peculiarities, and who has been confined about the same time—(14.)

When nursing, live on nutritious but not heavy diet. A full habit requires less nutriment than a delicate constitution. Stimulating liquors are to be avoided. Simple diluents, such as tea, are quite enough as drinks for many mothers—(15.)

The mother's milk is the best food for the new-born child for three months—(16.)

An infant from two to four months old, requires to be suckled once about every three hours—(22.)

The best substitute for the breast, but as temporary as possible, is asses' or diluted cows' milk; but on no account should farinaceous food be given at this early period—(18.)

Apply a flannel bandage to the lower part of the body in bowel eomplaints. A warm bath soothes irritation—(19.)

After six months, an approach may be made to a more solid diet—(20.)

Raise up the child after feeding-(20.)

Give no stimulants, caraway-seeds, carminatives, &c.; they are most pernicious—(21.)

Give as little medicine to a child as possible, and always by advice-(21.)

Never overfeed, and never stop crying by feeding-(21.)

Avoid rough jolting and patting on the back-(22.)

Train an infant to regularity in all its wants-(22.)

#### RULES FOR WEANING.

Wean gradually, discontinuing suckling in the night: the gradual change is beneficial to both mother and child. Avoid weaning in severe weather. Take for yourself a cooling purgative, and refrain from fluids and stimulating diet—(24.)

In weaning, apply to the breasts three ounces compound soap liniment, three drachms laudanum, one drachm camphor liniment. If this is too irritating, foment with warm water, or poppy heads and camomile flowers boiled together in water. Avoid tightness or pressure from the dress, and all roughness, for fear of abscess. Avoid drawing the breasts: avoid exposure to eold-(24, 25.)

#### SUMMARY.

#### RULES FOR TREATMENT AFTER WEANING .- FOOD.

Study the child's constitution, digestive powers, teeth, strength, and proportion the kind and quantity of food—(25.)

Animal food in small quantity once a-day, if the teeth ean masticate, is necessary when there is rapid growth-(25.)

Avoid too nourishing a diet with a violent tempered child -(25.)

Give a nourishing diet to a white-looking lymphatic child ---(25.)

Both overfeeding and underfeeding produce serofula and consumption-(26.)

The spoiled and petted child is injured both in health and temper-(26.)

Avoid seasoned dishes, fried and salted meats, pastry, uneooked vegetables, unripe fruits, wine and rieh eake—(27.)

Insist on thorough enewing or mastication-(27.)

Never tempt the appetite when disinelined—(27.)

Vary the food from day to day, but avoid variety at one meal-(27.)

Animal food should be tender, and eaten with a little salt, vegetables, and bread—(27.)

Take eare that the child's food is well cooked. Give no new bread—(27.)

Sweetmeats and confections are only to be given to children in a very sparing manner, if given at all. Never pamper or reward with eatables—(28.)

#### RULES FOR SLEEP.

Allow the child plenty of sleep without disturbance—(29.)

Avoid accustoming the child to sleep on the lap; it will not sleep in bed if so accustomed—(29.)

Establish times for regular sleeping-(29.)

Keep the hands, feet, and face comfortably warm-blankets are better than sheets-(29.)

Support every part of the body, raising by a slope the head and shoulders—(29.)

Avoid laying the child in the same bed with an adult, unless for a short time to restore warmth if it fail—(30.)

Never rouse the child by play when taken up during the night-(30.)

#### RULES FOR CLOTHING.

In the first stage of infancy, warmth depends on elothiug alone, for there is no museular movement-(31.)

Avoid a degree of warmth which produces *sensible* perspiration-(32.)

Flannel and calico are the best materials in all seasons—(32.) Dress the child loosely, and fasten with strings, not with pins—(32.)

The umbilical cord, navel, and belly-band, require much attention-(35.)

Avoid keeping the child's head too warm or its feet cold --(36, 38.)

Avoid chilling the child, or taking it abroad in cold weather -(37.)

Attend to the form and size of the child's shoes, so that the feet shall not be cramped—(38.)

The practice of plunging infants in cold water, to render them hardy, is exceedingly dangerous-(39.)

Let a child's washing be very completely and carefully performed. Keep the child always perfectly clean and neat—(40.)

Be very attentive to ventilate the apartment where a child lives, but never expose it to draughts of air-(44.)

Begin early to form habits of personal cleanliness and delieacy-(46.)

#### VACCINATION.

Let the child be vaccinated from six weeks to two months after birth, and that by a proper medical attendant. Vaccination should take place before teething.

#### DEFORMITIES AND DISTORTIONS.

Consult the surgeon on the first appearance of any deformity; and do not allow fears for giving pain to the child to prevent the use of the necessary remedies—(50.)

Be very vigilant with rickets or soft bones. Never allow the rickety child to support its own weight. It ought to be kept on its back for many months, and carried about on a little mattress on a board or tray, and have nourishing diet, and the proper medicines to give solidity to the bones—(52.)

Never jerk or swing children by the arms: much mischief has been done by this practice—(53.)

When a child falls or meets with any accident, it is highly culpable in a nurse to conceal it. If she do not immediately mention it, she may be the cause of the child's deformity and lameness for life—(53.)

With proper attention, a tendency to be *lcft-handed* may be easily cured in a child—(55.)

#### SUMMARY.

Prevent all tricks and ill habits which injure the features and organs; such as stuffing the nostrils, ears, &c., distending the mouth with too large a spoon—(56.)

Curvature of the spine is of very frequent occurrence from mismanaging children, by tight-lacing, long sitting without support to the back—(all school seats and forms should have backs). Take all deformities of the spine in time, before they get fixed—(58.)

#### PRECOCITY.

When a child appears to be over-intelligent, or too *clever*, or *wise*, for its age, this is a symptom of an unnatural development of the brain; it is a kind of disease. Avoid, therefore, exercising the child's ability; treat it as an animal, with nutritive food, nuscular out-door exercise, and plenty of sleep; and do this, and *this only*, for some years—(59.)

No child should be kept for more than a few minutes at a time engaged in mental study—(60.)

#### STAMMERING AND DEFECTIVE ARTICULATION.

This defeet, with care, may be cured; or rather, when it is first threatened, it may be prevented—(62.)

Practise the child in letters or articulations where a peculiar defect appears—(63.)

#### SQUINTING.

Watch this very common weakness: check it in the infant by holding the hand over the eyes till they are shut; and when opened again, if they have not assumed a proper position, repeat the operation. It may have often to be repeated. Careless nurses are very apt to *produce* squinting in children—(65.)

An ingenious and effectual mode of euring squinting has been discovered, and is now practised by surgeons-(66.)

#### TEETHING.

The first sign of teething is heat in the mouth of the ehild felt by the mother during sucking—flow of saliva—biting and grinding the gums. A piece of India-rubber is better than coral, ivory, or any hard substance, for rubbing the gums—(70.)

When the child is much distressed, have recourse to medical aid-(71.)

When the bowels are confined, give without delay a gentle

purgative, such as castor-oil, manna, magnesia, or senua. The warm bath at 96 degrees soothes the child—(71.)

A child's mouth should be often examined, even after three years of age-(71.) Wayward temper, cough, and even eroup, have been traced to cutting a double tooth-(72.)

Do not hesitate to allow the child's gums to be lanced-(72.)

#### EXERCISE-WALKING ALONE.

Very little motion, and that of the geutlest and most careful kind, is all the infant should have for a considerable time after birth—(73.)

Avoid the upright posture as much as possible-(73.)

Avoid all sudden and violent jerking, and long-continued positions-(73, 74.)

Allow the child to move its limbs freely on the floor or in bed-(75.)

Watch the first efforts of the ehild to walk alone, and interfere rather with eye and hand than by exclamations of caution and alarm: these last do much harm—(76.)

Avoid sympathising too strongly with a child when hurt: assist quietly, and show how the accident happened -(76.) Childreu who are angry when hurt should see that you do not sympathise with their rage, although you do with their sufferings-(77.)

Abjure all leading-strings and go-earts, or other artificial means of teaching the child to walk. Never drag the child by one hand, or lift it by either one or both  $\operatorname{arms}-(77.)$ 

When the child walks alone, it should not be permitted to over-fatigue itself-(77.)

The mother should have her eye both on child and its attendant out-of-doors, and be as much as she can in her child's company—(78.)

#### MORAL GOVERNMENT.

.

Anticipate and prevent fretfulness and ill-temper by keeping the child in good health, ease, and comfort. Never quiet with giving to eat, or by bribing in any way, still less by opiates— (80.)

For the first few months avoid loud and harsh sounds in the hearing of children, or violent lights in their sight : address them in soft tones; do nothing to frighten them; and never jerk or roughly handle them—(81.)

Avoid angry words and violence both to a child and in its

presence; by which means a naturally violent child will be trained to gentleness-(82.)

Moderate any propensity of a child, such as anger, violence, greediness for food, cunning, &c., which appears too active— (82.) Show him no example of these—(83.)

Let the mother be, and let her select servants such as she wishes the child to be. The youngest child is affected by the conduct of those in whose arms he lives--(83.)

Cultivate and express benevolence and cheerfulness: in such an atmosphere, a child must become benevolent and cheerful-(83.)

Let a mother *feel as she ought*, and she will *look as she feels*. Much of a child's earliest moral training is by looks and gestures—(84.)

When necessary, exhibit firmness and authority, always with perfect temper, composure, and self-possession—(84.)

Never give the child that which it eries for; and avoid being too ready in answering childrens' demands, else they become impatient of refusal, and selfish--(87.)

When the child is most violent, the mother should be most calm and silent—(89.) Out-screaming a screaming child is as useless as it is mischievous. Steady denial of the object screamed for is the best cure for screaming—(90.)

In such contests, witnesses should withdraw, and leave mother and child alone. A child is very ready to look round and attract the aid of *foreign* sympathy in its little rebellions—(90.)

Never promise to give when the child leaves off crying. Let the crying be the reason for not giving—(90.)

Constant warnings, reproofs, threats, and entreaties—as, let that alone—be quiet—low naughty you are, &c., all uttered in haste and irritation, are most peruicious. No fixed or definite moral improvement, but the reverse, results from this too common practice—(91.)

Watch destructiveness, manifested in fly and insect killing, and smashing aud breaking, quarrelling, striking, &c.—(92.) Never encourage revenge—(99.) Never allow a child to witness killing auimals—(100.)

Counterwork sccretiveness by exposing its manœuvres. Regulate notions of property—one's own and another's—(92.)

Never strike a child, and never teach it to strike again. Never tell a child to beat or threaten any animal or object—(92.) Corporal correction may be avoided by judicious substitutes—(98.)

Set an example of cleanliness, order, punctuality, delicacy, politeness, and proper ease of manner. This is better than *teaching manners*, as it is called—(92.)

Inculcate early, and manifest in yourself, a delicate regard for the rights of others and their feelings, in contrast with selfish vanity, arrogance, and exclusive attention to one's own ease, comfort, and gratification-(93.)

Prevent all indelicacics and slovenly habits at table—touching the utensils, stretching for what is wanted, sitting awkwardly, &c.—(93.)

Study early to gain a child's confidence by judicious sympathy in its joys and sorrows. Have no concealment with it - (94.)

Govern by love, and not by fear: the contrast between children governed by the one and the other is truly instructive. Never forget that kindness is power with man and beast. *The Arab never strikes his horse*—(94.)

Cultivate truth, justice, and candour in the child, and manifest them in yourself—(95.)

With a child whose firmness is apt to run into obstinacy, never contend: in doing so, you aggravate the feeling by manifesting the same feeling in yourself; and by further showing your combativeness, exciting the child's opposition. Divert the child from the object, and put in activity its benevolence, justice, and reason—(96.)

Never frighten to obtain a child's obedience: threats of hobgoblins, and all false terrors, are now universally exploded, as atrocities towards the young; death, fits, idiotcy, insanity, have been the consequences. They are besides soon discovered to be falsehoods, and operate most immorally—(97.)

#### EARLIEST INTELLECTUAL EDUCATION.

Cultivate by exercise the five senses of seeing, hearing, touching, smelling, tasting—(100.)

Teach the child to observe forms, sizes, weights, colours, arrangements, and numbers-(101.)

Practise all a child's knowing faculties on objects-featbers, shells, ribbons, buttons, pictures of animals, &c.--(102.)

Practise distinct articulation. If at four years of age a child has any defect, it ought to be systematically taught to pronounce correctly—(103.)

Let a child put its toy to another than the intended use, if it does not destroy it. This exercises invention—(103.)

Encourage construction, and furnish the materials, leaving ingenuity to work-(104.)

Accustom the child to find its own amusement. It is the most unprofitable slavery to be constantly finding amusement for it-(104.)

Remember that children love stories—the simpler the better; and delight to have them told again and again. Always give them a moral turn and character—(105.) Be sparing of the marvellous; exclude the terrible and horrible; and utterly proscribe all ghost and witch stories—(106.)

Accustom children to reptiles, insects, &c.; and prevent the foolish fears of these creatures which is often found in adults, and leads to the constant and most unnecessary destruction of them--(108.)

Induce a child to give attention, by presenting objects, and giving narratives which interest it. Do not tell it that it must give attention-(109.)

Avoid employing female servants as nurses who possess coarse habits and sentiments, or whose mode of speaking is coarse or indelicate—(109.)

No difference need at first be made between the rearing and training of male and female infants. Allow female children as they grow up to amuse themselves with dolls, and in a similar manner encourage and regulate the amusements of boys - (110.)

END OF INFANT TREATMENT.

The book following the present in "CHAMBERS'S EDUCATIONAL COURSE" is one entitled, "INFANT EDUCATION, FROM TWO TO SIX YEARS OF AGE." It is intended, at once as a directory for the management of an Infant School, and as a guide in private nursery treatment. The two volumes together are designed to comprehend the principles and art of education during the first six years of a child's life, that is, the period during which education is chiefly physical and moral, and immediately antecedent to that in which intellectual, and more particularly literary, education ought to commence.

#### EDITED BY

## WILLIAM AND ROBERT CHAMBERS.

THIS Course will, as far as possible, embody the code and materials of a complete Elementary Education, Physical, Moral, and Intellectual, calculated to prepare the young for the performance of the duties and labours of life. The Series will contain—

#### FIRST,

A GENERAL TREATISE ON, AND DIRECTORIES FOR, EDUCATION.

#### SECOND,

TEXT-BOOKS FOR USE IN SCHOOLS AND FOR PRIVATE INSTRUCTION.

The Works already Published are as follows :--

#### DIRECTORIES.

INFANT TREATMENT; addressed to Mothers and Nurses. A simple and perspicuous Code of Rules for the Management of Infants under Two Years of Ago. Price 1s. 3d.

INFANT EDUCATION from Two to Six Years of Age. Applicable to the Infant-School and the Nursery. Price 2s.

#### READING LESSONS.

THE FIRST BOOK OF READING; adapted to the intelligence of Children under Six Years Old. Price Three-halfpence.

THE SECOND BOOK OF READING; a Regular Series of Lessons on the Consonants for more advanced Pupils. Price 3d.

SIMPLE LESSONS IN READING; calculated to advance the Child in Reading and Spelling. Price 10d. cloth.

#### GRAMMAR.

INTRODUCTION TO ENGLISH COMPOSITION; consisting of simple instructions in the art of forming sentences, for children of from eight to ten years old. Price 6d. cloth.

ENGLISH GRAMMAR AND COMPOSITION. Part I. Orthography and Etymology taught hy precept, example, and practice. By A. J. D. D'ORSEY, High School, Glasgow. Price Is. 6d. cloth.

ENGLISH GRAMMAR AND COMPOSITION. Part II. Syntax and Prosody, or the nature, construction, arrangement, and punctuation of sentences. By A. J. D. D'ORSEY. Price ls. 6d. cloth.

EXERCISES IN ETYMOLOGY; exhibiting the several roots of the English Language. By WILLIAM GRAHAM. Price 2s. cloth.

#### GEOGRAPHY.

A GEOGRAPHICAL PRIMER; adapted to the development of the physical and political characters of the chief countries of the world, with a Map of the Hemispheres. Price 8d. cloth.

A GEOGRAPHICAL TEXT-BOOK for England, in reference to the School-room Map. Price 10d. cloth.

SCHOOL-ROOM MAPS of England, Ireland, Scotland, Europe, Asia, Palestine, North America, South America, Africa, and the Hemispheres, designed by JAMES FAIRBAIRN. Each Map measures 5 feet 8 inches in length by 4 feet 10 inches in breadth. Price, coloured on cloth, with rollers, 14s. each. The Hemispheres (including Astronomical Diagrams), 21s.

CHAMBERS'S SCHOOL ATLAS OF MODERN.AND ANCIENT GEOGRAPHY; containing thirty-four quarto maps, coloured. Price 10s. 6d. cloth.

#### DRAWING.

FIRST BOOK OF DRAWING, with exercises for practice on the slate and hlack hoard. By JOHN CLARK. Price 1s. 6d. cloth.

SECOND BOOK OF DRAWING; including perspective, and light and shade. By JOHN CLARK. Price 1s. 6d. cloth.

Published by W. & R. CHAMBERS, 339 High Street, Edinburgh, and 98 Miller Street, Glasgow; also by W. S. ORR & Co., Amen Corner, London; W. CURRY, Jun. and Co., Dublin; and all Booksellers.

#### CHAMBERS'S PEOPLE'S EDITIONS.

ANXIOUS to promote a taste for an improving kind of reading among the less opulent classes of the community, Messrs Chambers have for several years been engaged in publishing, from time to time, a series of reprints of approved works in all departments of literature; and in such a form (royal octavo) as to combine extreme cheapness with good appearance, readableness, and durability. The works have been, and continue to be, selected with a regard to the amusement, instruction, and moral improvement of the people. The series also includes Original Works of an entertaining and instructive character, and Translations of the most approved productions of foreign writers.

#### REPRINTS.

Sir George Mackenzie's Travels in Iceland,			-	1s. 4d.
Clarke's Travels in Russia, Tartary, and Turkey,				28. 6d.
Life and Travels of Mungo Park, -				1s. 4d.
Stephens's Incidents of Travel in Egypt, &c.,				1s. 10d.
Stephens's Incidents of Travel in Greece, &c.,				1s. 10d.
Malconi's Travels in the Burman Empire,				1s. 6d.
Maleom's Travels in Hindustan and China,			•	1s. 6d.
Brydone's Tour through Sicily and Malta, -				1s. 4d.
Parker's Journey beyond the Rocky Mountains,	-			1s. 4d.
Adventures of Rohinson Crusoe. By Daniel Defoe,				1s. 8d.
The Complete English Tradesman. By the same,	•			1s. 4d.
Goldsmith's Vicar of Wakefield,				0s. 8d.
Self-Control, a Novel. By Mrs Brunton, -	•			28. 2d.
Cottagers of Glenburnic. By Mrs E. Hamilton,		•		0s. 8d.
Palmyra. Letters from Palmyra hy Piso, -			-	1s. 10d.
Rome and the Early Christians. By the same,		٠		1s. 10d.
The Queen's Wake, a Poem. By James Hogg,				0s. 8d.
Crabbe's Parish Register, and other Poems, -		-		0s. 6d.
The Sabbath, and other Poems. By Grahame,				0s. 5d.
Lay of the Last Minstrel. By Sir Walter Scott,				0s. 7d.

# MESSRS CHAMBERS'S PUBLICATIONS.

Marmion. By Sir Walter Scott,	0s.	10d.
Lady of the Lake. By Sir Walter Scott, -	08.	9đ.
Ramsay's Select Poems, and Gentle Sbepberd, -	05.	8đ.
The Poetical Works of Robert Fergusson,	05.	9d.
The Life of Robert Burns,	15.	2đ.
The Poetical Works of Robert Burns, -	25.	0d.
The Prose Works of Robert Burns,	18.	8d.
Miscellany of Popular Scottish Poems,	0s.	8d.
Anster Fair, and other Poems. By W. Tennant,	0s.	8d.
Bacon's Essays, Moral, Economical, and Political,	0s.	8d.
Locke's Conduct of the Understanding,	0s.	6d.
Butler's Analogy of Religion,	l <i>s</i> .	2d.
Paley's Natural Theology, with Additions,	15.	Gd.
Addison's Moral and Humorous Essays,	35.	3d.
Franklin's Life and Miscellaneous Writings,	15.	4 <i>d</i> .
The History of Scotland. By William Robertson,	35.	6d.
Reynolds's Discourses on the Fine Arts,	15.	0đ.
The Court of Requests. By William Hutton, -	15.	0đ.
The Sea. Narratives of Adventure and Shipwreck,	28.	6d.
Julian, or Scenes in Judea, -	15.	10đ.
ORIGINAL AND TRANSLATED WORKS.		
A Tour in Holland, the Countries on the Rbine, and Belgium, in		
1838. By W. Chambers,	1s.	6d.
History of the Rebellion in Scotland in 1745-6, by R. Chambers.		
History of the Rebellion in Scotland in 1745-6, by R. Chaliners.		
Fifth Edition, improved,	3s.	0đ.
Fiftb Edition, improved, Stories of the Irish Peasantry. By Mrs S. C. Hall,	3s. 1s.	0đ. 9d.
Fiftb Edition, improved, Stories of the Irish Peasantry. By Mrs S. C. Hall, A Treatise on Agriculture and Dairy Husbandry. By James		
Fiftb Edition, improved, Stories of the Irish Peasantry. By Mrs S. C. Hall, A Treatise on Agriculture and Dairy Husbandry. By James Jackson, Penicuik,	1s. 2s.	
Fiftb Edition, improved, Stories of the Irish Peasantry. By Mrs S. C. Hall, A Treatise on Agriculture and Dairy Husbandry. By James Jackson, Penicuik, Wade's History and Political Economy of the Working-Classes.	1s. 2s.	9 <i>d</i> .
Fiftb Edition, improved, Stories of the Irish Peasantry. By Mrs S. C. Hall, A Treatise on Agriculture and Dairy Husbandry. By James Jackson, Penicuik, Wade's History and Political Economy of the Working-Classes. Fourth Edition, improved,	1s. 2s.	9 <i>d</i> .
Fiftb Edition, improved, Stories of the Irish Peasantry. By Mrs S. C. Hall, A Treatise on Agriculture and Dairy Husbandry. By James Jackson, Penicuik, Wade's History and Political Economy of the Working-Classes. Fourth Edition, improved, Modern French Literature. By L. R. de Véricour,	18. 28.	9d. 3đ.
Fiftb Edition, improved, Stories of the Irish Peasantry. By Mrs S. C. Hall, A Treatise on Agriculture and Dairy Husbandry. By James Jackson, Penicuik, Wade's History and Political Economy of the Working-Classes. Fourth Edition, improved, Modern French Literature. By L. R. de Véricour, A Treatise on Man. By M. Quetelet of Brussels,	18. 28. 38.	9d. 3d. 3d.
Fiftb Edition, improved, Stories of the Irish Peasantry. By Mrs S. C. Hall, A Treatise on Agriculture and Dairy Husbandry. By James Jackson, Penicuik, Wade's History and Political Economy of the Working-Classes. Fourth Edition, improved, Modern French Literature. By L. R. de Véricour, A Treatise on Man. By M. Quetelet of Brussels, The Imprisonments of Silvio Pellico,	1s. 2s. 3s. 2s.	9d. 3d. 3d. 0d.
Fiftb Edition, improved, Stories of the Irish Peasantry. By Mrs S. C. Hall, A Treatise on Agriculture and Dairy Husbandry. By James Jackson, Penicuik, Wade's History and Political Economy of the Working-Classes. Fourth Edition, improved, Modern French Literature. By L. R. de Véricour, A Treatise on Man. By M. Quetelet of Brussels, The Imprisonments of Silvio Pellico, Lamartine's Travels in the East,	1s. 2s. 3s. 2s. 3s. 0s.	9d. 3d. 3d. 0d. 0d.
Fiftb Edition, improved, Stories of the Irish Peasantry. By Mrs S. C. Hall, A Treatise on Agriculture and Dairy Husbandry. By James Jackson, Penicuik, Wade's History and Political Economy of the Working-Classes. Fourth Edition, improved, Modern French Literature. By L. R. de Véricour, A Treatise on Man. By M. Quetelet of Brussels, The Imprisonments of Silvio Pellico, Lamartine's Travels in the East, Guizot's General History of Civilisation in Europe,	1s. 2s. 3s. 2s. 3s. 0s. 3s. 3s.	9d. 3d. 3d. 0d. 0d. 9d.
Fiftb Edition, improved, Stories of the Irish Peasantry. By Mrs S. C. Hall, A Treatise on Agriculture and Dairy Husbandry. By James Jackson, Penicuik, Wade's History and Political Economy of the Working-Classes. Fourth Edition, improved, Modern French Literature. By L. R. de Véricour, A Treatise on Man. By M. Quetelet of Brussels, The Imprisonments of Silvio Pellico, Lamartine's Travels in the East, Guizot's General History of Civilisation in Europe, Popular Rbymes of Scotland,	1s. 2s. 3s. 2s. 3s. 0s. 3s. 1s.	9d. 3d. 3d. 0d. 0d. 9d. 9d.
Fiftb Edition, improved, Stories of the Irish Peasantry. By Mrs S. C. Hall, A Treatise on Agriculture and Dairy Husbandry. By James Jackson, Penicuik, Wade's History and Political Economy of the Working-Classes. Fourth Edition, improved, Modern French Literature. By L. R. de Véricour, A Treatise on Man. By M. Quetelet of Brussels, The Imprisonments of Silvio Pellico, Lamartine's Travels in the East, Guizot's General History of Civilisation in Europe,	1s. 2s. 3s. 2s. 3s. 0s. 3s. 1s.	9d. 3d. 3d. 0d. 0d. 9d. 9d. 9d. 4d. 2d. 6d.

# CHAMBERS'S INFORMATION FOR THE PEOPLE.

Complete in 100 numbers, each a distinct branch of human knowledge; illustrated by wood engravings. Price 1 hd. cach number, or two volumes handsomely hound in cloth, price 8s. each.

# CATALOGUE

OF

# CHAMBERS'S

# EDUCATIONAL COURSE

# AND OTHER PUBLICATIONS.

1846.

EDINBURGH:

PUBLISHED BY WILLIAM AND ROBERT CHAMBERS.

THE object of CHAMBERS'S EDUCATIONAL COURSE is to furnish the friends of an improved system of education with the books required for carrying out their views in the actual business of the nursery and school. It is constructed upon a theory which acknowledges that the human being possesses a physical, a moral, and an intellectual nature, each of which calls, throughout the period of infaney and youth, for its appropriate exercise, training, and instruction. In the execution of their task, the Editors have endeavoured to give a uniform tone and character to the works composing the scries the first time, they believe, anything of the kind has been attempted; and also to inculeate throughout not only sound views of physical and social economy, but to excite the kindlier affections and feelings. Everything likely to cherish discord or rouse the meaner passious has been earefully avoided.

Of this series of educational treatises, nearly forty volumes are now published; and it is the anxious desire of the Editors that it should be completed as speedily as may be consistent with the deliberation required for so important an undertaking. The Course consists of two main divisious—

I. Directories of Education—Physical, Moral, and Intellectual for the use of Parents and Teachers, referring to three stages of the period of Elementary Education.

II. A series of Text or School-books, comprehending Elementary Instruction in Science, Literature, and History, in which the art of Reading and Elocution are embraced. In order to accommodate those whose opportunities of education are limited, a number of the treatises are in the character of *Introductions, Rudiments*, or *Primers*, embracing the more familiar and indispensable branches of knowledge. Thus, a short series of books may be selected for schools of a humble order, or the whole may be employed for academics and establishments of an advanced kind.

All the volumes are uniform in size (large 18mo), and are issued strongly and neatly bound in cloth, gilt lettered, at exceedingly moderate prices.

The following CATALOGUE, explanatory of the object of the different volumes, is respectfully submitted to Parents, Teachers, and others interested in the instruction of youth. It will be observed, that Collections or mere Lesson-books form no part of the series. The Editors consider that reading as well as orthography may be learned while the pupil is going through and being generally exereised on the works of a systematic kind here indicated; and that all mere Lesson and Spelling-books are therefore superfluous. Should additional exercises in reading be required, the best study will consist in periodical and other literature, suitable to the capacities of youth.

# Directories of Coucation.

### INFANT TREATMENT

#### UNDER TWO YEARS OF AGE.

In education, a place of great importance must be assigned to that branch which regards the constitution of the human being at the first, and the treatment of it in those early years, or rather months, when it is most delicate, and most liable to be affected for good or evil. On these subjects the present volume forms a complete code of instruction—at once philosophical and practical.

Price 1s. 3d. (120 pages.)

## INFANT EDUCATION

FROM TWO TO SIX YEARS OF AGE.

This volume is addressed to the Conductors of Nurseries, and of those extended Establishments of the same kind—Infant Schools. It describes the apparatus required in both for instruction and management, and lays down the principles of *training*, presenting many matters requisite for that purpose, and conveying many of the lessons and rules of conduct which may be impressed on the mind in early childbood.

Price 2s. (188 pages.)

## DIRECTORIES

for the Management of Juvenile and Advanced Schools; for the use of Teachers. (In progress.)

# Text, or School Books.

THE FIRST BOOK OF READING;

Adapted to the intelligence of Children under Six years old.

Price 13d.

## THE SECOND BOOK OF READING;

A Regular Series of Lessons on the Consonants, for more Advanced Pupila. Price 3d.

## SIMPLE LESSONS IN READING;

Calculated to advance the Child in Reading and Spelling. Price 10d. cloth. (80 pages.)

## RUDIMENTS OF KNOWLEDGE.

In this work the child is introduced in a progressive manner, and by lessons to be read in schools, to a knowledge of the external appearances in the natural and social world; the explanations being given in simple language, suitable to juvenile minds. The subjects of the lessons are-God and the Works of Creation; Animated Creatures; Mankind as Nations and Individuals; the Country; Processes of Husbandry; Inanimate Objects-Stones, Slate, Glass, Clay, Bricks, Metals; Wood, Trees; Water, the Ocean, Shipa, the Compass, Fishing, Rivers; the Senses, Colours and Tints; Forms of Objects; Size and Measurement of Objects; Art of Writing, Books; Printing, Literature; Counting, Numerals; Time, Clocks, Watches, Seasons; Duying and Selling, Money; Property, Labour; Professions and Trades; Civil Government; Social Arrangements, Towns, Cities, Houses; Faculties and Emotions of the Mind. Illustrated with numerous Wood-Engravings.

Price 10d. cloth. (80 pages.)

## THE MORAL CLASS-BOOK.

In a series of advanced Reading Lessons, this volume describes the more important Moral and Economio Duties of Life, illustrating them by means of Anecdotes, Historical and Biographical, by Fables and other Narratives, together with a Selection of Scriptural Passages and Apothegms.

Price 1s. 6d. (168 pages.)

## INTRODUCTION TO THE SCIENCES.

This volume presents a Systematic View of Nature, under the various sciences of Astronomy, Natural Philosophy, Geology and Physical Geography, Meteorology, Electricity and Magnetism, Chemistry, Botany, Zoology, Human Physiology, and Mental Philosophy. Care is taken that the information given should not be a superficial view of a few unconnected phenomena, but a cbain of principles calculated, in combination, to impress a distinct and comprehensive idea, and to make it possible that even those who leave school at the carly ago of ten, shall not go into the world without some knowledge of the parts of which it is composed, and the laws by which it is regulated. Illustrated by Wood-Engravings.

Price 1s. (136 pages.)

## A GEOGRAPHICAL PRIMER.

This Treatise is so constructed as to contain much general and particular information in liftle space. The Characters of Climates, of Plants and Animals, and of Races of Men, the Degrees of Civilisation attained in various Parts of the Earth, and the predominating Forms of Religion, are treated generally in the first section, and then geographically applied. In the second section, the particulars introduced are such as specially characterise the various countries. Illustrated with Maps.

Price 8d. (64 pages.)

# INTRODUCTION TO ENGLISH COMPOSITION. By A. J. D. D'ORSEY,

Master of the English Department in the High School of Glasgow.

Directions for Exercises in Composition, designed as preparatory to the Study of Grammatical Rules.

Price Gd. (44 pages.)

# INTRODUCTION TO ENGLISH GRAMMAR.

By the same Author.

Intended to convey the Theory and Practice of English Grammar in as simple aud elementary a form as possible.

Price 1s. 3d. (104 pages.)

## ENGLISH GRAMMAR AND COMPOSITION.

By the same Author.

#### PART I.-ORTHOGRAPHY AND ETYMOLOGY.

Price 1s. 6d. (154 pages.)

#### PART II .- SYNTAX AND PROSODY.

Price 1s. 6d. (142 pages.)

A due preparation having been made by exercises from the Introduction to English Composition, pupils may be advanced either into the Introduction to English Grammar, or into the present larger treatise in two parts, according as a briefer or more extended course of education may be contemplated.

As a code of systematic Grammar, this Treatise is a triple compound of Precept, Example, and Practice. To tdl is not sufficient; to show is of great advantage; to train is the grand secret of success. Here all the three modes are provided for. 1. The subject is introduced by a definition, description, or explanation, sometimes given in several forms. 2. This is followed by examples, not of doubtful origin, but collected with labour from the best writers in our language—authority being everything in a work of this nature. 3. The pupil is furnished with works illustrative of the definitions to be worked up into somences. Thus every lesson is strictly practical.

In the second part, while Prosody is duly cared for, attention is chiefly devoted to Syntax, with its important subdivisions and collateral subjects, establishing each rule by the practice of the most accurate writers, and affording a copious supply of appropriate exercises, by which the teacher is enabled to ascertain with ease the pupils' knowledge of the principles explained.

## EXERCISES ON ETYMOLOGY.

By WILLIAM GRAHAM.

In this volume, an important department of English Grammar is more largely treated. It presents distinct vocabularies of words from the Saxon, Latin, and Greek, with appropriate examples and exercises.

Price 2s. (224 pages.)

## PRINCIPLES OF ELOCUTION.

By WILLIAM GRAHAM.

Besides treating the important subject of Inflection, this volumo affords explanations of Modulation and the Measuro of Speech ; subjects which have hitherto, in the greater number of Elocutionary Treatises, here entirely overlooked. There is added a copious selection of pieces in Prose and Verse, as examples in various styles of reading.

Price 3s. (358 pages.)

## UNIVERSAL HISTORY. (In progress.)

## HISTORY OF GREECE.

In this volume the political and military history of Greece are given with all possible brevity, so as to reserve a considerable space for what is of more consequence—the history of Poetry, Morals, and the lunitative Arts.

Price 3s. (320 pages.)

## HISTORY OF ROME. (In progress.)

## HISTORY OF THE BRITISH EMPIRE.

The present volume forms a comprehensive outline of British History, from the Conquest by the Romans till the reign of William IV. It unites, for tho first time, the History of the Three Kingdoms, England, Scotland, and Ireland, in one narrative. Lessons are added on the Present State of the Empire, its Territory and Population—Wealth and Industry—Agriculture, Manufaetures, and Commerce—Government—Revenue, Expenditure, and Armed Force—Dispensation of Laws—and Religion.

Price 2s. 6d. (274 pages.)

## HISTORY OF THE ENGLISH LANGUAGE AND LITERATURE.

Suitable to the more advanced classes in English Academies. Designed also to be useful to many hesides young persons at school--to all whose minds have heen awakened to a desiro of knowledge-guiding them to the stores of English literature, and distinguishing for them those works which are most worthy of their attention.

Price 2s. 6d. (278 pages.)

# EXEMPLARY AND INSTRUCTIVE BIOGRAPHY.

The principal persons who have advanced science and art; the most remarkahle discoverers and inventors; those who have distinguished themselves by their humanity, their patriotism, and their successful contendings with depressing circumstances—are here presented in the manner judged most likely to stimulate others to take similar courses, and to manifest similar virtues.

Price 2s. 9d. (290 pages.)

# THE LAWS OF MATTER AND MOTION.

The laws of Matter and Motion, usually treated under the titles of Statics, Pyronomics (or Heat), and Dynamics, form not only the proper introduction to Natural Science, but that particular department of it with which it is of the most importance that all should be made familiar. For these reasons, they are here presented in a small distinct treatuse, the price of which, as well as the simplicity of the language employed in its composition, may be expected to facilitate its general introduction into schools and families.

Price 10d. (72 pages.)

## MECHANICS.

This Treatise carries the pupil to the farthest limits of Dynamical and Mechanical Science to which he can reasonably be expected to proceed without a knowledge of Algebraic and Mathematical formulæ. It is illustrated with nearly 100 Engravings on wood.

Price 10d. (80 pages.)

## HYDROSTATICS, HYDRAULICS, AND PNEUMATICS.

The pupil, having heen made acquainted with the Laws of Matter and Motion, and with Mechanics, is now introduced to a knowledge of the Laws of Fluids, both as respects liquid and aëriform hodies.

In this, as in the proceeding Treatises, very great pains have been taken to render the language simple and intelligible, so that the learner may find at least no technical difficulty in his path.

Price 10d. (80 pages.)

# ACOUSTICS, OPTICS, ELECTRICITY AND MAG-NETISM, METEOROLOGY. (In progress.)

## RUDIMENTS OF CHEMISTRY.

By DR D. B. REID.

Designed to facilitate the introduction of Chemistry as an elementary branch of education in schools, and to lay a foundation for the pupil's future progress in the science, and in the more important of its practical applications in the economy of daily life and the nseful arts, by awakening his mind to tho nature of the material world in which he is placed.

Price 2s. 6d. (166 pages.)

# RUDIMENTS OF ANIMAL PHYSIOLOGY.

By DR G. HAMILTON.

The organisation of animals, and particularly of the human being, is here described by one who has been much accustomed to explain the subject in popular lectures. The Treatise is illustrated by Wood-Engravings. The object chiefly held in view, besides that of imparting knowledge of a portion of nature, is to enable individuals to live in the manner most conducive to health.

Price 1s. 9d. (106 pages.)

## RUDIMENTS OF ZOOLOGY.

Presenting a complete view of the Animal Kingdom, as a portion of external nature. As the composition of one of the most eminent physiologists of our age, it possesses an anthority not attributable to such Treatises in general. Illustrated by numerous Wood-Engravings.

Price 4s. (426 pages.)

## RUDIMENTS OF VEGETABLE PHYSIOLOGY.

Designed to convey an idea of the General Structure and Functions of Plants—their various organs, and the terms by which these are respectively distinguished—their modes of growth and reproduction—their geographical distribution—and ther extensive utility in the scheme of creation. Numerous Engravings.

Price 1s. 9d. (130 pages.)

## RUDIMENTS OF BOTANY. (In preparation.)

## RUDIMENTS OF GEOLOGY.

By DAVID PAGE.

The subject is here presented in its two aspects of interesting and important —interesting, inasmuch as it exhibits the progressive conditions of the earth from the remotest periods, and reveals the character of the plants and animals which have successively adorned and peopled its surface; and important, as it determines the position of those metals and minerals upon which the arts and manufactures so intimately depend. Illustrated hy Wood-Engravings.

Price 2s. 6d. (222 pages.)

# GENERAL TREATISE ON GEOGRAPHY. (In progress.)

## SCHOOL-ROOM MAPS

Of England, Ireland, Scotland, Europe, Asia, Pulestine, North America, South America, Africa, and the Hemispheres.

Each Map measures 5 feet 8 inches in length hy 4 feet 10 inches in breadth. Price, coloured on cloth, 14s. each. The Henrispheres (including Astronomical Diagrams), 21s. All these Maps are mounted on rollers for hanging on the walls of school-rooms.

## A GEOGRAPHICAL TEXT-BOOK for the MAP OF ENGLAND.

Price 10d. (68 pages.)

TEXT-BOOKS for the other Maps. (In progress.)

# INTRODUCTION TO ARITHMETIC.

As a first hook on the subject, it is limited to the expressly elementary, yet includes all that is likely to be required by persons in ordinary circumstances. The compiler has studied extreme simplicity of diction, and in every instance shown the meaning of the rules and questions by examples wrought out at length before the eye of the pupil.

Price 1s. (142 pages.)

#### ARITHMETIC.

(An advanced Treatise on Arithmetic, and one presenting its application in Book-keeping, remain to be published.)

## THE ELEMENTS OF ALGEBRA.

#### By A. Bell.

Containing all the subjects in theory and practice usually comprehended in an elementary work. The author has kept in view, as a special object, to explain, as clearly as possible, the principles of the science, to illustrate them fully by appropriate examples, and to prescribe a sufficient number of exercises for solution by the student, in order to impress the principles on his memory, and cuable him to acquire a competent skill in Algebraical computation.

Two parts, price 2s. 6d. each. (480 pages.)

# A KEY TO THE ELEMENTS OF ALGEBRA.

#### By A. BELL.

A Sequel to the preceding Treatise, designed to assist the student of Algebra, hy enabling him to work questions correctly, and surmount any difficulties he may encounter in his progress through this branch of his Mathematical studies.

Price 2s. 6d. (208 pages.)

## PLANE GEOMETRY.

Consisting of the first six hooks of Euclid, a book on the Quadrature and Rectification of the Circle, a hook on Geometrical Maxima and Minima, an exposition of the method of Geometrical Analysis, and an additional second and fifth book. There is likewise a Treatise on Plane Trigonometry.

Price 2s. 6d. (250 pages.)

# SOLID AND SPHERICAL GEOMETRY AND CONIC SECTIONS.

This volume presents the higher branches of Synthetical Geometry. It consists of treatises on Solid Geometry, Spherical Geometry, Spherical Trigonometry (these from Playfair's Euclid), the Projections of the Sphere, Perpendicular Projection, Linear Perspective, and Conic Sections.

Price 2s. 6d. (164 pages.)

 $\pi_k$ \* The above two volumes form, in combination, an improved edition of Euclid, at about half the usual price. A Key to PLANE GEOMETRY is in progress, and will shortly be published.

## A TREATISE ON PRACTICAL MATHEMATICS. By A. Bell.

Part I. Containing Practical Geometry, Trigonometry, Mensuration of Heights and Distances, Mensuration of Surfaces and Solids, &c.

Part II. Containing Land-Surveying, Gauging, Projectiles, Spherical Trigonometry, Astronomical Problems, Navigation, &c.

In preparing this Treatise, considerable pains have been taken to explain the method of solving the numerous problems. The rules are expressed as simply and concisely us possible in common language.

Price of each part, 4s. (730 pages.)

# MATHEMATICAL TABLES.

By A. Bell.

Comprehending all the most important Tables required in Trigonometry, Mensuration, Land-Surveying, Navigation, Nautical Astronomy, &c. and purticularly adapted to the above Treatises of Practical Mathematics.

Price 3s. 6d. cloth. (316 pages.)

# A FIRST BOOK OF DRAWING.

By JOHN CLARK.

Contains directions for the simplest exercises on the slate and black board.

Price 1s. 6d.

# A SECOND BOOK OF DRAWING.

By JOHN CLARK.

The pupil, having acquired some experience in the exercises above mentioned, is now introduced to the methodic rules or principles of Drawing and Perspective.

Price 1s. 6d. (92 pages.)

Note.-Besides the works noticed as being in progress or not published, the Course will embrace some additional volumes under consideration.

Chambers's Miscellancous Publications.

## CHAMBERS'S EDINBURGH JOURNAL, NEW SERIES.

Publishing in Weekly Numbers at Three-halfpence, and in Monthly Parts. Four Volumes completed, at 4s. 6d. cach, in cloth boards.

 $*_{*}*$  A few complete sets of the Old Series remaining, in twelve volumes, for £4, 10s.

# CHAMBERS'S INFORMATION FOR THE PEOPLE.

The whole forming a vast body of useful and popular knowledge on History, Science, Arts, Geography, Literature, &c.

Now completed in 100 Numbers, at Three-halfpence each, or in Two Volumes bound, at 16s.

# CHAMBERS'S CYCLOPÆDIA OF ENGLISII LITERATURE.

A Critical and Biographical History of English Writers in all departments of Literature, illustrated by specimens of their writings;

Forming two massive and handsome volumes, price 14s. cloth.

## CHAMBERS'S MISCELLANY OF USEFUL AND ENTERTAINING TRACTS.

This work, which was begun in the latter part of the year 1844, with the view of supplying a useful and entertaining species of reading among the humbler classes of the community, is published periodically, and in different forms. Every Saturday there is issued a number, consisting of a sheet of large double foolseap (32 pages), embracing a distinct subject, price one penny. In some instances, the number consists of two half sheets, also distinct subjects, at a halfpenny each. The work is likewise issued in sewed monthly parts, at *freeproce* and *sizpence* alternately, those at sixpence containing a title and index. Every two months, the numbers or parts issued form a volume (256 pages), at one *shilling*.

The following numbers, making twelve volumes, have been issued :--

AT A THE SET OF THE TAXABLE STREET	0 D .
No. 1. Life of Louis-Philippe, •	One Penny.
2. Tale of Norfolk Island,	One Halfpenny.
3. Story of Colbert,	One Halfpenny.
4. The Employer and Employed, • •	One Penny.
5. Time Enough, a Tale by Mrs S. C. Hall.	One Halfpenny.
6. Manual for Infant Management,	One Halfpenny.
7. Pieeiola, or the Prison-Flower.	One Penny.
8. Life in the Bush, hy a Lady,	One Penny.
9. William Tell and Switzerland.	One Penny.
10. The Two Beggar Boys, a Tale,	One Halfpenny.
11. Select Poems of the Domestic Affections, •	One Halfpenny.
12. Graee Darling, &c	One Halfpenny.
<ol> <li>Story of Maurice and Genevieve, -</li> </ol>	One Halfpenny.
14. Religious Impostors,	One Penny.
15. Aneedotes of Dogs,	One Penny.
16. La Rochejaquelein and the War in La Vendée,	One Penny.
17. Journal of a Poor Viear.	One Penny.
18. Romanee of Geology.	One Penny.
19. History of the Slave Trade,	One Penny.
20. Story of Walter Ruysdael, the Watchmaker, -	One Halfpenny.
21. Chevy-Chase, and the Beggar's Daughter of	
Bethnal-Green,	One Halfpenny.
22. Life of Nelson,	One Penny.
23. The Temperance Movement, -	One Penny.
24. Story of Peter Williamson, -	One Penny.

MISCELLANY OF TRACTS-continued. No. 25. Joan of Arc, Maid of Orleans,	One Penny.
26. Annals of the Poor-Female Industry and In-	
trepidity, -	One Penny.
27. Slavery in America,	One Penny.
28. A Visit to Vesuvius, Pompcii, and Herculaneum,	One Penny.
29. Story of Eaptiste Lulli, -	One Halfpenny.
30. Select Poems of Kindness to Animals,	One Halfpenny.
31. Wallace and Bruce,	One Penny.
32. Cases of Circumstantial Evidence,	One Penny.
33. Story of Richard Falconer, &c.	One Penny.
34. The Goldmakers' Village,	One Penny.
35. The Last Earl of Derwentwater, 36. The Heroine of Siheria,	One Penny. One Halfpenny.
37. Domestie Flower-Culture,	One Halfpenny.
38. Insurrections in Lyons,	One Penny.
39. The Hermit of Warkworth, and other Ballads,	One Penny.
40. Life of Captain Cook,	One Penny.
41. Anecdotes of the Horse,	One Penny.
42. William of Orange and the Netherlands, -	One Penny.
43. Passion and Principle,	One Halfpenny.
44. Life-Assurance: a Familiar Dialogue,	One Halfpenny.
45. Excursion to the Oregon,	One Penny.
46. Mrs Macclarty. Scenes from the "Cottagers of	
Glenhurnie,"	One Penny.
47. The Little Captive King,	One Penny.
48. Children of the Wilds,	One Halfpenny.
49. Select Poems on Love for Flowers,	One Halfpenny.
50. Life of Flora Macdonald,	One Halfpenny.
51. Cleanliness-Bathing-Ventilation, -	One Halfpenny.
52. Anecdotes of the Deaf, Dumh, and Blind,	One Penny.
53. Sir Stamford Raffles and the Spice Islands, -	One Penny.
54. The Sister of Remhrandt,	One Penny.
55. Anecdotes of the Cat, 56. It's Only a Drop. By Mrs S. C. Hall,	One Halfpenny. Oue Halfpenny.
57. Tonssaint L'Ouverture and the Republic of Hayti,	One Penny.
58. Curiosities of Vegetation,	One Penny.
59. The Ancient Mariner, and Other Poems, hy	one i chij.
Coleridge, -	One Penny.
60. Life of Washington,	One Penny.
61. Anecdotes of Elephants	One Penny.
62. The Story of Lavalette,	One Penny.
63. Intelligent Negroes,	One Penny.
64. A Visit to Madeira and Teneriffe, -	One Penny.
65. The Life of a Sailor Boy,	One Penny.
66. Hindoo Superstitions, -	One Penny.
67. The Story of Valentine Duval, -	One Halfpenny.
68. The History of Will and Jean, -	One Haifpenny.
69. Life of William Hutton,	One Penny.
70. Spectral Illusions,	One Penny.
71. Prince Lee Boo,	One Halfpenny.
72. The Tintoretto,	One Halfpenny.
73. History of Poland,	One Penny. One Penny.
74. The Scottish Adventurers,	One Penny.
75. A Visit to Shetland, - 76. Story of Baron Trenck, -	One Penny.
76. Story of Earon Trenck, 77. Heir of Linno, and Other Ballads,	One Penny.
73. Life of Henry IV., King of France,	One Penny.
79. A Story of the Factories. By Camilla Touimin,	Onc Penny.
for an order of the and a determined a determined	

MISCELLANY OF TRACTS	-continuca		
No. 80. Anecdotes of Scrpents,	-		One Penny.
81. Adventures of Robert Drury,			One Penny.
82. Natural Magie,	-		One Penny.
83. Scottish Traditionary Stories.		-	One Penny.
84. Story of Catherine of Russia,			One Halfpenny.
85. Wood-Engraving			One Halfpeuny.
86. Poems by George Crahbe,			One Penny.
87. Life of Oberlin, •			Ono Penny.
88. Anecdotes of Ants,			One Penny.
89. Story of Silvio Pellico.		-	One Penny.
90. Traditionary Tales of Tweeddale,	-		One Penny.
91. Madame Roland and the Girondins,			One Penny.
92. Shipwreek of the Medusa,			One Penny.
93. Voluntary Distortions-Tight Lacing,		-	One Halfpenny.
94. The Sculptor of the Black Forest,			One Halfpenny.
95. Select Poetical Pieces of Sir Walter S	eott,		Ono Penny,
96. Life of Columbus,	-		One Penny.
97. Narrative of the Russian Campaign,			One Penny.
98. Love is Power,			One Penny.
99. Story of Alexander Andrayne,			One Penny.
100. Aneedotes of Spiders.			One Penny.
101. The Village Mayor, &c			One Penny.
102. An Account of the Borders,			One Penny.
103. Select Poetical Picces of Cowper, -		-	One Penny.
104. Life of Peter the Great,			One Penny.
105. Story of De la Tude, -		-	One Penny.
106. The Moors in Spain, -	•		One Penny.
107. The Moutyon Prizes,			One Penny.
108. Curiosities of ArtI. Architecture,			One Penny.
109. The Persecutions in Scotland, -			One Penny.
110. The Three Ways of Living, .			One Penny.
111. The Child of Elle, and other Ballads,			One Penny.

## CHAMBERS'S PEOPLE'S EDITIONS.

Anxious to promote a taste for an improving kind of reading among the less opulent classes of the community, Messrs Chamhers have published a series of reprints of approved works in all departments of literature; and in such a form (royal octavo) as to comhine extreme cheapness with good appearance, readableness, and durability. The hooks have heen selected with regard to the amusement, instruction, and moral improvement of the people. The series also includes *Original Works* of an entertaining and instructive character, and *Translations* of the most approved productions of foreign writers.

#### REPRINTS.

Sir George Mackenzie's Travels in Iceland, .			1s. 4d.
Clarke's Travels in Russia, Tartary, and Turkey,			2s. 6d.
Life and Travels of Mungo Park,			1s. 4d
Stephens's Incidents of Travel in Egypt, &c.			1s. 10d.

PEOPLE'S EDITIONS-continu	ort				
Stephens's Incidents of Travel in Greece, &c.		•			ls. 10d.
Malcom's Travels in the Burman Empire.		•		•	1s. 6d.
Maleom's Travels in Hindustan and China,	•		•		1s. 6d.
Brydone's Tour through Sicily and Malta.				· .	18. 44.
Parker's Journey beyond the Rocky Mountains, .					1s. 4d.
Adventuros of Robinson Crusoc. By Daniel Defoe.				·	1s. 8d.
The Complete English Tradesman. By the same,	-				1s. 4d.
Goldsmith's Vicar of Wakefield,					0s. 8d.
Self-Control, a novel. By Mrs Brunton, .				-	2s. 2d.
Cottagers of Glenburnic. By Mrs E. Hamilton.					0s. 8d.
Palmyra. Letters from Palmyra by Piso.					1s. 10d.
Rome and the Early Christians. By the same,					1s. 10d.
Julian, or Scencs in Judea. By the same,					1s. 10d.
The Qucen's Wake, a Poem. By James Hogg,					0s. 8d.
Crabbo's Parish Register, and other Poems,					0s. 6d.
The Sabbath, and other Poems. By Grahame,					0s. 5d.
Lay of the Last Minstrel. By Sir Waltor Scott, .					0s. 7d.
Marmion. By Sir Walter Scott,					0s. 10d.
Lady of the Lake. By Sir Walter Scott,					0s. 9d.
Ramsay's Scleet Poems, and Gentle Shepherd,					0s. 8d.
The Poctical Works of Robert Fergusson,					0s. 9d.
The Life of Robert Burns,					1s. 2d.
The Poetical Works of Robert Burns,					2s. 0.1.
The Proso Works of Robert Burns,					1s. 8d.
Miscellany of Popular Scottish Poems,					0s. 8d.
Anster Fair, and other Poems. By W. Tennant,					0s. 8d.
Bacon's Essays, Moral, Economical, and Political,					0s. 8d.
Locko's Conduct of the Understanding,					0s. 6d.
Butler's Analogy of Religion,					1s. 2d.
Paley's Natural Theology, with Additions,					1s. 6d.
Addison's Moral and Humorous Essays,					3s. 3d.
Franklin's Life and Miscellaneous Writings, .					1s. 4d.
The History of Scotland. By William Robertson,					3s. 6d.
Reynolds's Discourses on the Fine Arts,					1s. 0d.
The Court of Requests. By William Hutton,				1.	1s. 0d.
The Sca. Narratives of Adventure and Shipwreck,	•				2s. 6d.

#### ORIGINAL AND TRANSLATED WORKS.

A Tour in Holland, the Countries on the Rhine, and Belgium, in 183	3.	
By W. Chambers,		6d.
History of the Rebellion in Scotland in 1745-6. By R. Chamber	8.	
Fifth Edition, improved,	35.	0d.
Stories of the Irish Peasantry. By Mrs S. C. Hall,	15.	9d.
A Treatise on Agriculture and Dairy Husbandry. By James Jackson	n.,	
Penicuik,	25.	3d.
Wade's History and Political Economy of the Working Classes. Four	h	
Edition, improved,	35.	3đ.
Modern French Literature. By L. R. de Véricour,	28.	0d.
A Treatise on Man. By M. Quetelot of Brussels,	38.	0d.
The Imprisonments of Silvio Pellico,	05.	9d.
Lamartino's Travels in the East,	35.	<b>9</b> <i>d</i> <b>.</b>
Guizot's General History of Civilisation in Europe,	18.	4d.
Popular Rhymes of Scotland,	15.	2d.
A Tour in Switzerland, in 1841. By W. Chambers,	18.	6d.
History of Gustavus Vasa,	15.	6d.

10-

#### In course of Publication,

## CHAMBERS'S ATLAS FOR THE PEOPLE.

#### EDITED BY W. AND R. CHAMBERS,

CONDUCTORS OF CHAMBERS'S EDINBURGH JOURNAL, &C.

The design of the Editors in this work is to furnish a cheap, convenient, and, as far as possible, a correct ATLAS, illustrative of Modern and Ancient Geography. It will consist of thirty-four quarto maps, coloured in outline, along with a Descriptive Introduction, and will likewise embrace a Consulting Index, so copious, that it will for the most part supersede reference to a Gazetteer.

#### Mode of Publication.

Published in Montbly Numbers, each containing four maps, in a printed wrapper. The work will be completed in ten Numbers; the last Number to comprise the Introduction descriptive of the physical and political Geography of the Glohe. Price of each Number, one shilling and twopence. Seven Numbers are already issued.

No. I. Engraved Title-Page-two Hemispheres-Europe.

2. England and Wales-Scotland-Ireland-France in Provinces.

3. France in Departments-Spain and Portugal-Switzerland-Italy.

4. Ancient Italy-Turkey in Europe and Greece-Ancient Greece-Austria.

5. Germany-Holland and Belgium-Denmark-Sweden and Norway.

6. Prussia-Russia in Europe-Asia-Turkey in Asia.

7. Ancient Asia Minor-Palestine-Hindoostan-East India Islands and Australia.

Lately Published,

## COOKERY AND DOMESTIC ECONOMY, FOR YOUNG HOUSEWIVES.

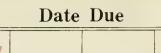
BY THE MISTRESS OF A FAMILY.

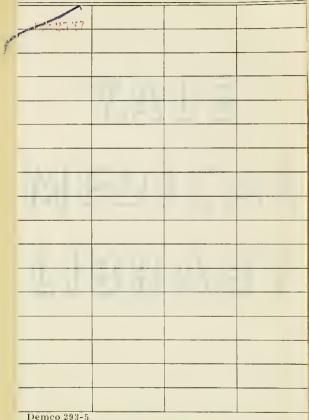
In one small volume, neatly bound in cloth, price 1s. 6d.

Of this work, which has gone through several editions, the authoress thus speaks in her preface :-- " The present work has been designed and written entirely with a view to practical utility, and for the information of those young housewives in the middle ranks of society who have not had the bencht of regular instructions in the affairs of the kitchen. My reason for attempting to compose such a work may be explained in a few words. All the cookery books, both of an old and new date, which I have been able to procure, appear to be written chiefly as remembrancers for professed cooks, or as guides in the extensive kitchens of the higher classes of persons, where economy is not sup-posed to be a matter of importance. The greater part of their recipes are consequently written on a principle of lavish expenditure, and refer to a great number of things which are never seen at the tables of the frugal and industrious orders of the community, or things which it is much cheaper for a small family to buy ready made than to manufacture at home. Excellent, tberefore, as many of these works are, they are generally unsuitable for popular and practical use. Housewives who have occasion to consult them upon emergencies, uniformly complain that they cannot understand them, and that, if they did, they could not afford to follow them as guides. It is with the humble hope of remedying these deficiencies that the present treatise is presented to the public."

PUBLISHED BY W. AND R. CHAMBERS, EDINBURGH.







Accession no. 25852

Autho[Barwell]: nfant treatment. 845.

Call no. RJ61 845B

