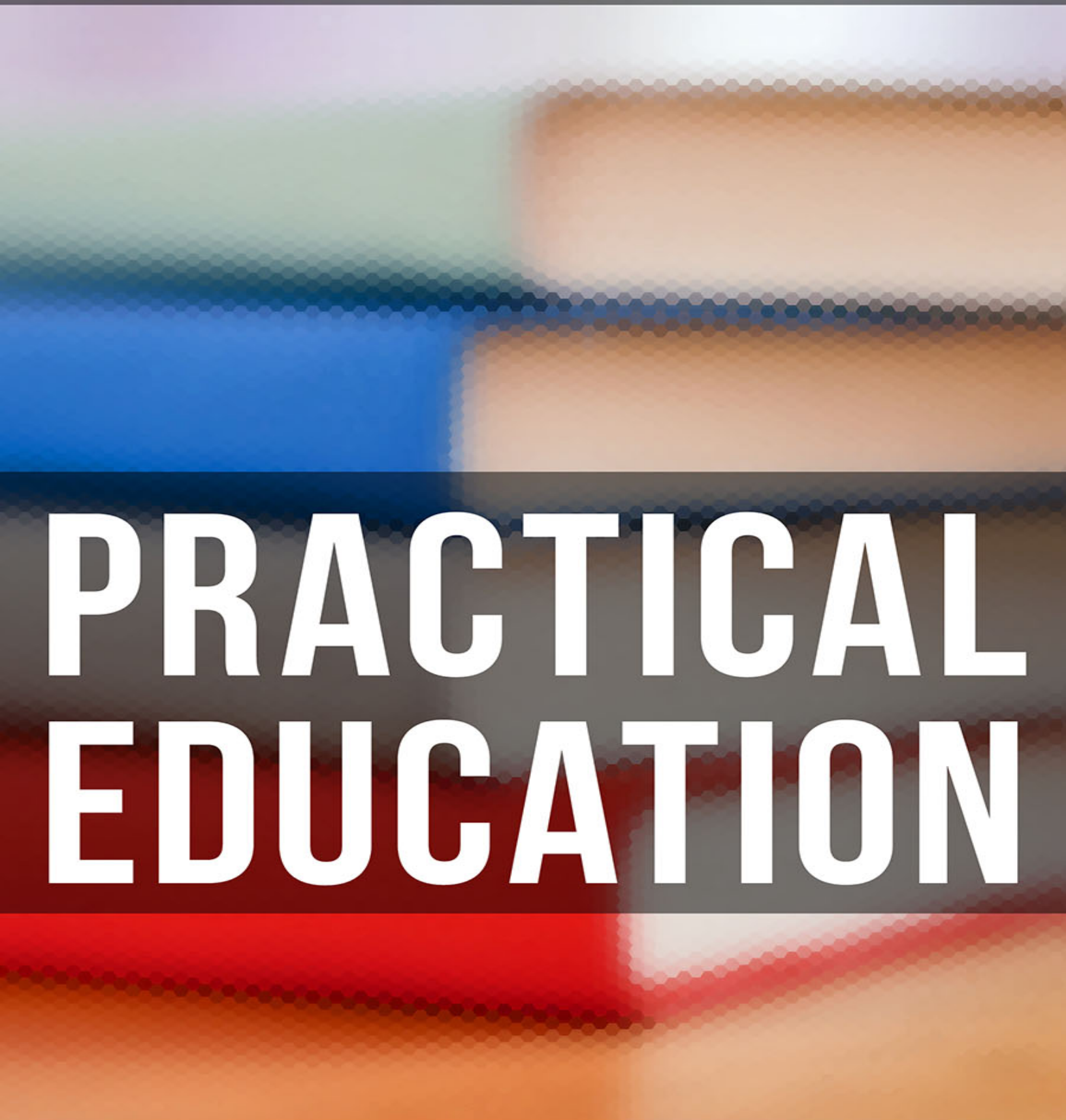
MARIA EDGEWORTH
RICHARD LOVELL EDGEWORTH



PRACTICAL EDUCATION

VOL. 1 & 2

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Table of Contents

Volume 1

Table of Contents

PREFACE.

Table of Contents

We shall not imitate the invidious example of some authors, who think it necessary to destroy the edifices of others, in order to clear the way for their own. We have no peculiar system to support, and, consequently, we have no temptation to attack the theories of others; and we have chosen the title of Practical Education, to point out that we rely entirely upon practice and experience.

To make any progress in the art of education, it must be patiently reduced to an experimental science: we are fully sensible of the extent and difficulty of this undertaking, and we have not the arrogance to imagine, that we have made any considerable progress in a work, which the labours of many generations may, perhaps, be insufficient to complete; but we lay before the publick the result of our experiments, and in many instances the experiments themselves. In pursuing this part of our plan, we have sometimes descended from that elevation of style, which the reader might expect in a quarto volume; we have frequently been obliged to record facts concerning children which may seem trifling, and to enter into a minuteness of detail which may appear unnecessary. No anecdotes, however, have been admitted without due deliberation; nothing has been introduced to gratify the idle curiosity of others, or to indulge our own feelings of domestic partiality.

In what we have written upon the rudiments of science, we have pursued an opposite plan; so far from attempting

to teach them in detail, we refer our readers to the excellent treatises on the different branches of science, and on the various faculties of the human mind, which are to be found in every language. The chapters that we have introduced upon these subjects, are intended merely as specimens of the manner in which we think young children should be taught. We have found from experience, that an early knowledge of the first principles of science may be given in conversation, and may be insensibly acquired from the usual incidents of life: if this knowledge be carefully associated with the technical terms which common use may preserve in the memory, much of the difficulty of subsequent instruction may be avoided.

The sketches we have hazarded upon these subjects, may to some appear too slight, and to others too abstruse and tedious. To those who have explored the vast mines of human knowledge, small specimens appear trifling and contemptible, whilst the less accustomed eye is somewhat dazzled and confused by the appearance even of a small collection: but to the most enlightened minds, new combinations may be suggested by a new arrangement of materials, and the curiosity and enthusiasm of the inexperienced may be awakened, and excited to accurate and laborious researches.

With respect to what is commonly called the education of the heart, we have endeavoured to suggest the easiest means of inducing useful and agreeable habits, well regulated sympathy and benevolent affections. A witty writer says, "Il est permis d'ennuyer en moralites d'ici jusqu' a Constantinople." Unwilling to avail ourselves of this

permission, we have sedulously avoided declamation, and, wherever we have been obliged to repeat ancient maxims, and common truths, we have at least thought it becoming to present them in a new dress.

On religion and politics we have been silent, because we have no ambition to gain partisans, or to make proselytes, and because we do not address ourselves exclusively to any sect or to any party. The scrutinizing eye of criticism, in looking over our table of contents, will also, probably, observe that there are no chapters on courage and chastity. To pretend to teach courage to Britons, would be as ridiculous as it is unnecessary; and, except amongst those who are exposed to the contagion of foreign manners, we may boast of the superior delicacy of our fair countrywomen; a delicacy acquired from domestic example, and confirmed by publick approbation. Our opinions concerning the female character and understanding, have been fully detailed in a former publication;[1] and, unwilling to fatigue by repetition, we have touched but slightly upon these subjects in our chapters on Temper, Female Accomplishments, Prudence, and Economy.

We have warned our readers not to expect from us any new theory of education, but they need not apprehend that we have written without method, or that we have thrown before them a heap of desultory remarks and experiments, which lead to no general conclusions, and which tend to the establishment of no useful principles. We assure them that we have worked upon a regular plan, and where we have failed of executing our design, it has not been for want of labour or attention. Convinced that it is the duty and the

interest of all who write, to inquire what others have said and thought upon the subject of which they treat, we have examined attentively the works of others, that we might collect whatever knowledge they contain, and that we might neither arrogate inventions which do not belong to us, nor weary the public by repetition. Some useful and ingenious essays may probably have escaped our notice; but we flatter ourselves, that our readers will not find reason to accuse us of negligence, as we have perused with diligent attention every work upon education, that has obtained the sanction of time or of public approbation, and, though we have never bound ourselves to the letter, we hope that we have been faithful to the spirit, of their authors. Without incumbering ourselves with any part of their systems which has not been authorized by experience, we have steadily attempted immediately to apply to practice such of their ideas as we have thought useful; but whilst we have used the thoughts of others, we have been anxious to avoid mean plagiarism, and wherever we have borrowed, the debt has been carefully acknowledged.

The first hint of the chapter on Toys was received from Dr. Beddoes; the sketch of an introduction to chemistry for children was given to us by Mr. Lovell Edgeworth; and the rest of the work was resumed from a design formed and begun twenty years ago. When a book appears under the name of two authors, it is natural to inquire what share belongs to each of them. All that relates to the art of teaching to read in the chapter on Tasks, the chapters on Grammar and Classical Literature, Geography, Chronology, Arithmetic, Geometry, and Mechanics, were written by

Mr. Edgeworth, and the rest of the book by Miss Edgeworth. She was encouraged and enabled to write upon this important subject, by having for many years before her eyes the conduct of a judicious mother in the education of a large family. The chapter on Obedience, was written from Mrs. Edgeworth's notes, and was exemplified by her successful practice in the management of her children; the whole manuscript was submitted to her judgment, and she revised parts of it in the last stage of a fatal disease.

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[1] Letters for Literary Ladies.

CHAPTER I.

TOYS

Table of Contents

"Why don't you play with your playthings, my dear? I am sure that I have bought toys enough for you; why can't you divert yourself with them, instead of breaking them to pieces?" says a mother to her child, who stands idle and miserable, surrounded by disjointed dolls, maimed horses, coaches and one-horse chairs without wheels, and a nameless wreck of gilded lumber.

A child in this situation is surely more to be pitied than blamed; for is it not vain to repeat, "Why don't you play with your playthings," unless they be such as he can play with, which is very seldom the case; and is it not rather unjust to be angry with him for breaking them to pieces, when he can by no other device render them subservient to his amusement? He breaks them, not from the love of mischief, but from the hatred of idleness; either he wishes to see what his playthings are made of, and how they are made; or, whether he can put them together again, if the parts be once separated. All this is perfectly innocent; and it is a pity that his love of knowledge and his spirit of activity should be repressed by the undistinguishing correction of a nursery maid, or the unceasing reproof of a French governess.

The more natural vivacity and ingenuity young people possess, the less are they likely to be amused with the toys which are usually put into their hands. They require to have

things which exercise their senses or their imagination, their imitative, and inventive powers. The glaring colours, or the gilding of toys, may catch the eye, and please for a few minutes, but unless some use can be made of them, they will, and ought, to be soon discarded. A boy, who has the use of his limbs, and whose mind is untainted with prejudice, would, in all probability, prefer a substantial cart, in which he could carry weeds, earth and stones, up and down hill, to the finest frail coach and six that ever came out of a toy-shop: for what could he do with the coach after having admired, and sucked the paint, but drag it cautiously along the carpet of a drawing-room, watching the wheels, which will not turn, and seeming to sympathize with the just terrors of the lady and gentleman within, who are certain of being overturned every five minutes? When he is tired of this, perhaps, he may set about to unharness horses which were never meant to be unharnessed; or to currycomb their woollen manes and tails, which usually come off during the first attempt.

That such toys are frail and useless, may, however, be considered as evils comparatively small: as long as the child has sense and courage to destroy the toys, there is no great harm done; but, in general, he is taught to set a value upon them totally independent of all ideas of utility, or of any regard to his own real feelings. Either he is conjured to take particular care of them, because they cost a great deal of money; or else he is taught to admire them as miniatures of some of the fine things on which fine people pride themselves: if no other bad consequence were to ensue, this single circumstance of his being guided in his choice by

the opinion of others is dangerous. Instead of attending to his own sensations, and learning from his own experience, he acquires the habit of estimating his pleasures by the taste and judgment of those who happen to be near him.

"I liked the cart best," says the boy, "but mamma and every body said that the coach was the prettiest; so I chose the coach."—Shall we wonder if the same principle afterwards governs him in the choice of "the toys of age?"

A little girl, presiding at her baby tea-table, is pleased with the notion that she is like her mamma; and, before she can have any idea of the real pleasures of conversation and society, she is confirmed in the persuasion, that tattling and visiting are some of the most enviable privileges of grown people; a set of beings whom she believes to be in possession of all the sweets of happiness.

Dolls, beside the prescriptive right of ancient usage, can boast of such an able champion in Rousseau, that it requires no common share of temerity to attack them. As far as they are the means of inspiring girls with a taste for neatness in dress, and with a desire to make those things for themselves, for which women are usually dependent upon milliners, we must acknowledge their utility; but a watchful eye should be kept upon the child, to mark the first symptoms of a love of finery and fashion. It is a sensible remark of a late female writer, that whilst young people work, the mind will follow the hands, the thoughts are occupied with trifles, and the industry is stimulated by vanity.

Our objections to dolls are offered with great submission and due hesitation. With more confidence we may venture

to attack baby-houses; an unfurnished baby-house might be a good toy, as it would employ little carpenters and seamstresses to fit it up; but a completely furnished baby-house proves as tiresome to a child, as a finished seat is to a young nobleman. After peeping, for in general only a peep can be had into each apartment, after being thoroughly satisfied that nothing is wanting, and that consequently there is nothing to be done, the young lady lays her doll upon the state bed, if the doll be not twice as large as the bed, and falls fast asleep in the midst of her felicity.

Before dolls, baby-houses, coaches, and cups and saucers, there comes a set of toys, which are made to imitate the actions of men and women, and the notes or noises of birds and beasts. Many of these are ingenious in their construction, and happy in their effect, but that effect unfortunately is transitory. When the wooden woman has churned her hour in her empty churn; when the stiff backed man has hammered or sawed till his arms are broken, or till his employers are tired; when the gilt lamb has ba-ad, the obstinate pig squeaked, and the provoking cuckoo cried cuckoo, till no one in the house can endure the noise; what remains to be done?—Wo betide the unlucky little philosopher, who should think of inquiring why the woman churned, or how the bird cried cuckoo; for it is ten to one that in prosecuting such an inquiry, just when he is upon the eve of discovery, he snaps the wire, or perforates the bellows, and there ensue "a death-like silence, and a dread repose."

The grief which is felt for spoiling a new plaything might be borne, if it were not increased, as it commonly is, by the

reproaches of friends; much kind eloquence, upon these occasions, is frequently displayed, to bring the sufferer to a proper sense of his folly, till in due time the contrite corners of his mouth are drawn down, his wide eyes fill with tears, and, without knowing what he means, he promises never to be so silly any more. The future safety of his worthless playthings is thus purchased at the expense of his understanding, perhaps of his integrity: for children seldom scrupulously adhere to promises, which they have made to escape from impending punishment.

We have ventured to object to some fashionable toys; we are bound at least to propose others in their place; and we shall take the matter up soberly from the nursery.

The first toys for infants should be merely such things as may be grasped without danger, and which might, by the difference of their sizes, invite comparison: round ivory or wooden sticks should be put into their little hands; by degrees they will learn to lift them to their mouths, and they will distinguish their sizes: square and circular bits of wood, balls, cubes, and triangles, with holes of different sizes made in them, to admit the sticks, should be their playthings. No greater apparatus is necessary for the amusement of the first months of an infant's life. To ease the pain which they feel from cutting teeth, infants generally carry to their mouths whatever they can lay their hands upon; but they soon learn to distinguish those bodies which relieve their pain, from those which gratify their palate; and, if they are left to themselves, they will always choose what is painted in preference to every thing else; nor must we attribute the look of delight with which they seize

toys that are painted red, merely to the pleasure which their eye takes in the bright colour, but to the love of the sweet taste which they suck from the paint. What injury may be done to the health by the quantity of lead which is thus swallowed, we will not pretend to determine, but we refer to a medical name of high authority,[2] whose cautions probably will not be treated with neglect. To gratify the eye with glittering objects, if this be necessary, may be done with more safety by toys of tin and polished iron: a common steel button is a more desirable plaything to a young child than many expensive toys; a few such buttons tied together, so as to prevent any danger of their being swallowed, would continue for some time a source of amusement.

When a nurse wants to please or to pacify a child, she stuns its ear with a variety of noises, or dazzles its eye with glaring colours or stimulating light. The eye and the ear are thus fatigued without advantage, and the temper is hushed to a transient calm by expedients, which in time must lose their effect, and which can have no power over confirmed fretfulness. The pleasure of exercising their senses, is in itself sufficient to children without any factitious stimulus, which only exhausts their excitability, and renders them incapable of being amused by a variety of common objects, which would naturally be their entertainment. We do not here speak of the attempts made to sooth a child who is ill; "to charm the sense of pain," so far as it can be done by diverting the child's attention from his own sufferings to outward objects, is humane and reasonable, provided our compassion does not induce in the child's mind the

expectation of continual attendance, and that impatience of temper which increases bodily suffering. It would be in vain to read lectures on philosophy to a nurse, or to expect stoicism from an infant; but, perhaps, where mothers pay attention themselves to their children, they will be able to prevent many of the consequences of vulgar prejudice and folly. A nurse's wish is to have as little trouble as possible with the child committed to her charge, and at the same time to flatter the mother, from whom she expects her reward. The appearance of extravagant fondness for the child, of incessant attention to its humour, and absurd submission to its caprices, she imagines to be the surest method of recommending herself to favour. She is not to be imposed upon by the faint and affected rebukes of the fond mother, who exclaims, "Oh, nurse, indeed you *do* spoil that child sadly!—Oh, nurse, upon my word she governs you entirely!—Nurse, you must not let her have her own way always.—Never mind her crying, I beg, nurse."—Nurse smiles, sees that she has gained her point, and promises what she knows it is not expected she should perform. Now if, on the contrary, she perceived that the mother was neither to be flattered nor pleased by these means, one motive for spoiling the child would immediately cease: another strong one would, it is true, still remain. A nurse wishes to save herself trouble, and she frequently consults her own convenience when she humours an infant. She hushes it to sleep, that she may leave it safely; she stops it from crying, that she may not hear an irritating noise, that she may relieve herself as soon as possible from the painful weakness of compassion, or that she may avoid the danger

of being interrogated by the family as to the cause of the disturbance. It is less trouble to her to yield to caprice and ill-humour than to prevent or cure it, or at least she thinks it is so. In reality it is not; for an humoured child in time plagues its attendant infinitely more than it would have done with reasonable management. If it were possible to convince nurses of this, they would sacrifice perhaps the convenience of a moment to the peace of future hours, and they would not be eager to quell one storm, at the hazard of being obliged to endure twenty more boisterous; the candle would then no more be thrust almost into the infant's eyes to make it take notice of the light through the mist of tears, the eternal bunch of keys would not dance and jingle at every peevish summons, nor would the roarings of passion be overpowered by insulting songs, or soothed by artful caresses; the child would then be caressed and amused when he looks smiling and good-humoured, and all parties would be much happier.

Practical education begins very early, even in the nursery. Without the mountebank pretence, that miracles can be performed by the turning of a straw, or the dictatorial anathematizing tone, which calls down vengeance upon those who do not follow to an iota the injunctions of a theorist, we may simply observe, that parents would save themselves a great deal of trouble, and their children some pain, if they would pay some attention to their early education. The temper acquires habits much earlier than is usually apprehended; the first impressions which infants receive, and the first habits which they learn from their nurses, influence the temper and disposition long

after the slight causes which produced them are forgotten. More care and judgment than usually fall to the share of a nurse are necessary, to cultivate the disposition which infants show, to exercise their senses, so as neither to suffer them to become indolent and torpid from want of proper objects to occupy their attention, nor yet to exhaust their senses by continual excitation. By ill-timed restraints or injudicious incitements, the nurse frequently renders the child obstinate or passionate. An infant should never be interrupted in its operations; whilst it wishes to use its hands, we should not be impatient to make it walk; or when it is pacing, with all the attention to its centre of gravity that is exerted by a rope-dancer, suddenly arrest its progress, and insist upon its pronouncing the scanty vocabulary which we have compelled it to learn. When children are busily trying experiments upon objects within their reach, we should not, by way of saving them trouble, break the course of their ideas, and totally prevent them from acquiring knowledge by their own experience. When a foolish nurse sees a child attempting to reach or lift any thing, she runs immediately, "Oh, dear love, it can't do it, it can't!—I'll do it for it, so I will!"—If the child be trying the difference between pushing and pulling, rolling or sliding, the powers of the wedge or the lever, the officious nurse hastens instantly to display her own knowledge of the mechanic powers: "Stay, love, stay; that is not the way to do it—I'll show it the right way—see here—look at me love."—Without interrupting a child in the moment of action, proper care might previously be taken to remove out of its way those things which can really hurt it, and a just degree of attention

must be paid to its first experiments upon hard and heavy, and more especially upon sharp, brittle, and burning bodies; but this degree of care should not degenerate into cowardice; it is better that a child should tumble down or burn its fingers, than that it should not learn the use of its limbs and its senses. We should for another reason take care to put all dangerous things effectually out of the child's reach, instead of saying perpetually, "Take care, don't touch that!—don't do that!—let that alone!" The child, who scarcely understands the words, and not at all the reason of these prohibitions, is frightened by the tone and countenance with which they are uttered and accompanied; and he either becomes indolent or cunning; either he desists from exertion, or seizes the moment to divert himself with forbidden objects, when the watchful eye that guards them is withdrawn. It is in vain to encompass the restless prisoner with a fortification of chairs, and to throw him an old almanack to tear to pieces, or an old pincushion to explore; the enterprising adventurer soon makes his escape from this barricado, leaves his goods behind him, and presently is again in what the nurse calls mischief.

Mischief is with nurses frequently only another name for any species of activity which they find troublesome; the love which children are supposed to have for pulling things out of their places, is in reality the desire of seeing things in motion, or of putting things into different situations. They will like to put the furniture in a room in its proper place, and to arrange every thing in what we call order, if we can make these equally permanent sources of active amusement; but when things are once in their places, the child has nothing

more to do, and the more quickly each chair arrives at its destined situation, the sooner comes the dreaded state of idleness and quiet.

A nursery, or a room in which young children are to live, should never have any furniture in it which they can spoil; as few things as possible should be left within their reach which they are not to touch, and at the same time they should be provided with the means of amusing themselves, not with painted or gilt toys, but with pieces of wood of various shapes and sizes, which they may build up and pull down, and put in a variety of different forms and positions; balls, pulleys, wheels, strings, and strong little carts, proportioned to their age, and to the things which they want to carry in them, should be their playthings.

Prints will be entertaining to children at a very early age; it would be endless to enumerate the uses that may be made of them; they teach accuracy of sight, they engage the attention, and employ the imagination. In 1777 we saw L——, a child of two years old, point out every piece of furniture in the French prints of Gil Blas; in the print of the Canon at Dinner, he distinguished the knives, forks, spoons, bottles, and every thing upon the table: the dog lying upon the mat, and the bunch of keys hanging at Jacintha's girdle; he told, with much readiness, the occupation of every figure in the print, and could supply, from his imagination, what is supposed to be hidden by the foremost parts of all the objects. A child of four years old was asked, what was meant by something that was very indistinctly represented as hanging round the arm of a figure in one of the prints of the London Cries. He said it was a glove; though it had as

little resemblance to a glove, as to a ribbon or a purse. When he was asked how he knew that it was a glove, he answered, "that it ought to be a glove, because the woman had one upon her other arm, and none upon that where the thing was hanging." Having seen the gown of a female figure in a print hanging obliquely, the same child said, "The wind blows that woman's gown back." We mention these little circumstances from real life, to show how early prints may be an amusement to children, and how quickly things unknown, are learnt by the relations which they bear to what was known before. We should at the same time observe, that children are very apt to make strange mistakes, and hasty conclusions, when they begin to reason from analogy. A child having asked what was meant by some marks in the forehead of an old man in a print; and having been told, upon some occasion, that old people were wiser than young ones, brought a print containing several figures to his mother, and told her that *one*, which he pointed to, was wiser than all the rest; upon inquiry, it was found that he had formed this notion from seeing that one figure was wrinkled, and that the others were not.

Prints for children should be chosen with great care; they should represent objects which are familiar; the resemblances should be accurate, and the manners should be attended to, or at least, the general moral that is to be drawn from them. The attitude of Sephora, the boxing lady in Gil Blas, must appear unnatural to children who have not lived with termagant heroines. Perhaps, the first ideas of grace, beauty, and propriety, are considerably influenced by the first pictures and prints which please children. Sir Joshua

Reynolds tells us, that he took a child with him through a room full of pictures, and that the child stopped, with signs of aversion, whenever it came to any picture of a figure in a constrained attitude.

Children soon judge tolerably well of proportion in drawing, where they have been used to see the objects which are represented: but we often give them prints of objects, and of animals especially, which they have never seen, and in which no sort of proportion is observed. The common prints of animals must give children false ideas. The mouse and the elephant are nearly of the same size, and the crocodile and whale fill the same space in the page. Painters, who put figures of men amongst their buildings, give the idea of the proportionate height immediately to the eye: this is, perhaps, the best scale we can adopt; in every print for children this should be attended to. Some idea of the relative sizes of the animals they see represented would then be given, and the imagination would not be filled with chimeras.

After having been accustomed to examine prints, and to trace their resemblance to real objects, children will probably wish to try their own powers of imitation. At this moment no toy, which we could invent for them, would give them half so much pleasure as a pencil. If we put a pencil into their hands even before they are able to do any thing with it but make random marks all over a sheet of paper, it will long continue a real amusement and occupation. No matter how rude their first attempts at imitation may be; if the attention of children be occupied, our point is gained. Girls have generally one advantage at this age over boys, in

the exclusive possession of the scissors: how many camels, and elephants with amazing trunks, are cut out by the industrious scissors of a busy, and therefore happy little girl, during a winter evening, which passes so heavily, and appears so immeasurably long, to the idle.

Modelling in clay or wax might probably be a useful amusement about this age, if the materials were so prepared, that the children could avoid being every moment troublesome to others whilst they are at work. The making of baskets, and the weaving of sash-line, might perhaps be employment for children; with proper preparations, they might at least be occupied with these things; much, perhaps, might not be produced by their labours, but it is a great deal to give early habits of industry. Let us do what we will, every person who has ever had any experience upon the subject, must know that it is scarcely possible to provide sufficient and suitable occupations for young children: this is one of the first difficulties in education. Those who have never tried the experiment, are astonished to find it such a difficult and laborious business as it really is, to find employments for children from three to six years old. It is perhaps better, that our pupils should be entirely idle, than that they should be half employed. "My dear, have you nothing to do?" should be spoken in sorrow rather than in anger. When they see other people employed and happy, children feel mortified and miserable to have nothing to do. Count Rumford's was an excellent scheme for exciting sympathetic industry amongst the children of the poor at Munich; in the large hall, where the elder children were busy in spinning, there was a range of seats for the younger

children, who were not yet permitted to work; these being compelled to sit idle, and to see the busy multitude, grew extremely uneasy in their own situation, and became very anxious to be employed. We need not use any compulsion or any artifice; parents in every family, we suppose, who think of educating their own children, are employed some hours in the day in reading, writing, business, or conversation; during these hours, children will naturally feel the want of occupation, and will, from sympathy, from ambition and from impatience of insupportable ennui, desire with anxious faces, "to have something to do." Instead of loading them with playthings, by way of relieving their misery, we should honestly tell them, if that be the truth, "I am sorry I cannot find any thing for you to do at present. I hope you will soon be able to employ yourself. What a happy thing it will be for you to be able, by and by, to read, and write and draw; then you will never be forced to sit idle."

The pains of idleness stimulate children to industry, if they are from time to time properly contrasted with the pleasures of occupation. We should associate cheerfulness, and praise, and looks of approbation, with industry; and, whenever young people invent employments for themselves, they should be assisted as much as possible, and encouraged. At that age when they are apt to grow tired in half an hour of their playthings, we had better give them playthings only for a very short time, at intervals in the day; and, instead of waiting till they are tired, we should take the things away before they are weary of them. Nor should we discourage the inquisitive genius from examining

into the structure of their toys, whatever they may be. The same ingenious and active dispositions, which prompt these inquiries, will secure children from all those numerous temptations to do mischief, to which the idle are exposed. Ingenious children are pleased with contrivances which answer the purposes for which they are intended: and they feel sincere regret whenever these are injured or destroyed: this we mention as a further comfort and security for parents, who, in the company of young mechanics, are apt to tremble for their furniture. Children who observe, and who begin to amuse themselves with *thought*, are not so actively hostile in their attacks upon inanimate objects. We were once present at the dissection of a wooden cuckoo, which was attended with extreme pleasure by a large family of children; and it was not one of the children who broke the precious toy, but it was the father who took it to pieces. Nor was it the destruction of the plaything which entertained the company, but the sight of the manner in which it was constructed. Many guesses were made by all the spectators about the internal structure of the cuckoo, and the astonishment of the company was universal, when the bellows were cut open, and the simple contrivance was revealed to view; probably, more was learnt from this cuckoo, than was ever learnt from any cuckoo before. So far from being indifferent to the destruction of this plaything, H —— the little girl of four years old, to whom it belonged, remembered, several months afterwards, to remind her father of his promise to repair the mischief he had done.

"Several toys, which are made at present, are calculated to give pleasure merely by exciting surprise, and of course

give children's minds such a tone, that they are afterwards too fond of *similar useless baubles*."[3] This species of delight is soon over, and is succeeded by a desire to triumph in the ignorance, the credulity, or the cowardice, of their companions. Hence that propensity to play tricks, which is often injudiciously encouraged by the smiles of parents, who are apt to mistake it for a proof of wit and vivacity. They forget, that "gentle dulness ever loved a joke;" and that even wit and vivacity, if they become troublesome and mischievous, will be feared, and shunned. Many juggling tricks and puzzles are highly ingenious; and, as far as they can exercise the invention or the patience of young people, they are useful. Care, however, should be taken, to separate the ideas of deceit and of ingenuity, and to prevent children from glorying in the mere possession of a secret.

Toys which afford trials of dexterity and activity, such as tops, kites, hoops, balls, battledores and shuttlecocks, ninepins, and cup-and-ball, are excellent; and we see that they are consequently great and lasting favourites with children; their senses, their understanding, and their passions, are all agreeably interested and exercised by these amusements. They emulate each other; but, as some will probably excel at one game, and some at another, this emulation will not degenerate into envy. There is more danger that this hateful passion should be created in the minds of young competitors at those games, where it is supposed that some *knack* or *mystery* is to be learned before they can be played with success. Whenever children play at such games, we should point out to them how and

why it is that they succeed or fail: we may show them, that, in reality, there is no *knack* or *mystery* in any thing, but that from certain causes certain effects will follow; that, after trying a number of experiments, the circumstances essential to success may be discovered; and that all the ease and dexterity, which we often attribute to the power of natural genius, is simply the consequence of practice and industry. This sober lesson may be taught to children without putting it into grave words or formal precepts. A gentleman once astonished a family of children by his dexterity in playing at bilboquet: he caught the ball nine or ten times successively with great rapidity upon the spike: this success appeared miraculous; and the father, who observed that it had made a great impression upon the little spectators, took that opportunity to show the use of spinning the ball, to make the hole at the bottom ascend in a proper direction. The nature of centrifugal motion, and its effect, in preserving the *parallelism* of *motion*, if we may be allowed the expression, was explained, not at once, but at different intervals, to the young audience. Only as much was explained at a time as the children could understand, without fatiguing their attention, and the abstruse subject was made familiar by the mode of illustration that was adopted.

It is surprising how much children may learn from their playthings, when they are judiciously chosen, and when the habit of reflection and observation is associated with the ideas of amusement and happiness. A little boy of nine years old, who had had a hoop to play with, asked "why a hoop, or a plate, if rolled upon its edge, keeps up as long as

it rolls, but falls as soon as it stops, and will not stand if you try to make it stand still upon its edge?" Was not the boy's understanding as well employed whilst he was thinking of this phenomenon, which he observed whilst he was beating his hoop, as it could possibly have been by the most learned preceptor?

When a pedantic schoolmaster sees a boy eagerly watching a paper kite, he observes, "What a pity it is that children cannot be made to mind their grammar as well as their kites!" And he adds, perhaps, some peevish ejaculation on the natural idleness of boys, and that pernicious love of play against which he is doomed to wage perpetual war. A man of sense will see the same thing with a different eye; in this pernicious love of play he will discern the symptoms of a love of science, and, instead of deploring the natural idleness of children, he will admire the activity which they display in the pursuit of knowledge. He will feel that it is his business to direct this activity, to furnish his pupil with materials for fresh combinations, to put him or to let him put himself, in situations where he can make useful observations, and acquire that experience which cannot be bought, and which no masters can communicate.

It will not be beneath the dignity of a philosophic tutor to consider the different effects, which the most common plays of children have upon the habits of the understanding and temper. Whoever has watched children putting together a dissected map, must have been amused with the trial between Wit and Judgment. The child, who quickly perceives resemblances, catches instantly at the first bit of the wooden map, that has a single hook or hollow that seems

likely to answer his purpose; he makes, perhaps, twenty different trials before he hits upon the right; whilst the wary youth, who has been accustomed to observe differences, cautiously examines with his eye the whole outline before his hand begins to move; and, having exactly compared the two indentures, he joins them with sober confidence, more proud of never disgracing his judgment by a fruitless attempt, than ambitious of rapid success. He is slow, but sure, and wins the day.

There are some plays which require presence of mind, and which demand immediate attention to what is actually going forward, in which children, capable of the greatest degree of abstract attention, are most apt to be defective. They have many ideas, but none of them ready, and their knowledge is useless, because it is recollected a moment too late. Could we, in suitably dignified language, describe the game of "birds, beasts, and fishes," we should venture to prescribe it as no very painful remedy for these absent and abstracted personages. When the handkerchief or the ball is thrown, and when his bird's name is called for, the absent little philosopher is obliged to collect his scattered thoughts instantaneously, or else he exposes himself to the ridicule of naming, perhaps, a fish or a beast, or any bird but the right. To those children, who, on the contrary, are not sufficiently apt to abstract their attention, and who are what Bacon calls "birdwitted," we should recommend a solitary-board. At the solitary-board they must withdraw their thoughts from all external objects, hear nothing that is said, and fix their attention solely upon the figure and the pegs before them, else they will never succeed; and, if they make