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THE

PLACE OF THE STORY

IN

EARLY EDUCATION

AND OTHER ESSAYS



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INTRODUCTORY NOTE.

THE writer of this book loves children. She has voluntarily gone down from work in higher grades to teach the youngest. She is an excellent storyteller to children. Like Dujardin, she does not believe in art for art's sake; but out of a mind wellstored with the best, she adapts, and often invents, her tales as a means of moral improvement.

The woman's kingdom is fast coming in school work, as statistics everywhere show. It should be a kingdom in which love is supreme. Perhaps men teachers are more prone to regard chiefly the subjectmatter of culture, to mechanize, to instruct, to respect logical order. But all teaching, especially that of the very young, must always be a work of love to be really effective. This was its original motive; yet, so far have we gone in our idolatry of the material of culture, so far have we forgotten that the dominant motive of the Great Teacher must animate all good and true teaching, that it seems almost like a Copernicus-revolution to make the child, and not knowledge, the centre of the whole educational system, and to insist that its nature and need must dominate everything in education, and that child-

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study so directed as to instruct concerning childnature and to awaken child-love, should be the beginning of the teacher's wisdom.

Love of childhood and youth has always been one of the strongest incentives to high thoughts and noble deeds. All the teachings of Socrates seem inspired by love of the best Greek youths. The same was true of Fichte. Pestalozzi found his inspiration in the love of younger and less favored children, and Froebel's heart went out toward the promise and potency of yet younger children. Between two teachers, one trained in the best normal college, but unsympathetic and devoted to ready-made methods, and the other with a heart full of love, but ignorant of even the three R's, what parent of young children would hesitate? The love would bring the knowledge, but knowledge cannot bring the love. This author does what she can to stir up women to do in their own way what men have long striven to do in theirs, and would see knowledge, not less but ever more, everywhere subordinated, as she seeks to subordinate the story, as a means to mental and moral growth.

G. STANLEY HALL.

ASHFIELD, MASS., August 30, 1892.

THE PLACE OF THE STORY IN EARLY EDUCATION.¹

To rightly place the story, one must first know something of its history. That the stories of a people have given us our best glimpses of the life of that people is no less true than that the character of its individuals has been modified by these same tales. Sir George W. Cox, who has made a searching study of the myths of the Aryan nations, says there is ample evidence that the popular tales of Germany, Norway and India at the present day were well known in Greece and elsewhere for centuries before the Christian era, and they form in the strictest sense of the words, and have formed for thousands of years, the folk-lore, or learning of

¹ Read before the Eastern Kindergarten Association of Boston, Mass. the people, embodying practically their whole knowledge of the outer world.

Such is the antiquity of the popular story.

The educated and the uneducated can meet in perfect sympathy upon this common ground. The delight in Norse and Greek myths is not a royal one — the man who traces them through the various languages in which they may have been clothed may, perchance, hear the same stories with Irish brogue or German accent wherever children congregate to "tell stories."

Odin and Baldner, Freya and Brynhild, Jupiter, Juno and Io, with their loves and lives, afford the student of folk-lore such delight that he is in danger of forgetting that here in the nineteenth century we have hero-worshippers, miracle-believers, myth-makers — all in the person of the little child.

This period in the child's life corresponds to that in the life of the race when a rainbow was the bridge to heaven, and a flower the slipper of Venus.

We have no right to trifle with our little mythmaker. We have no right to tell him all the old stories simply because they are old. The tragedy of Red Riding Hood is not better than the story of the Water Babies simply because it is older; we must have some other standard of value for literature than that for cheese.

The old stories fed the patriotism of the people; they nourished the morals and sustained the courage of men and women; Beauty vanquished the Beast and restored him to his princely birthright — goodness triumphed — the very garments of the gods were near enough for the common people to touch them.

But we must have a specific plan and purpose for our story. It cannot be better shown than by a few illustrations. The value of the personal equation is sufficient apology for using my own stories for this purpose.

There was in my kindergarten many years ago a little boy whose deceit and cruelty were quite abnormal; he would smile in my face with seraphic sweetness while with his heavy shoe he would be crushing his neighbor's toes; he would put his arm about a playmate with a facial expression of great tenderness and drive a pin into

the arm he pretended to caress. All usual methods of correction were exhausted, and yet he seemed incorrigible. At last I wrote a story entitled the Fairy True Child, into which I put my strongest effort to reach this untruthful child. I told it to the class, and before it was concluded this boy's head was low upon his breast, his cheeks aflame with conscious guilt. No direct reference was made to him; no other child thought of him in connection with the story. The next day he asked to have it repeated, and his conduct was noticeably better; the story became his moral tonic, and one glad day he threw his arms about me, saying he wanted to keep his Fairy True Child always. At the end of the year, when he was to be promoted to primary school, his father visited the kindergarten, begging that he might be retained there another year; for something had apparently remade the child, he had grown so gentle with the baby at home, and until of late they had had grave fears of his killing it.

I made the acquaintance of a feeble-minded child. His greatest difficulty seemed to lie in a frightful mental inertia. Some of his thoughts were beautiful, but he would dream of the Lorelei when he ought to be mastering the multiplication table, and his personal habits were quite disgusting. He became fond of me, and when I left him for my summer vacation it was with a promise that I would write a story expressly for him. Never did I set myself a more difficult task — and with more anxiety than ever went with manuscript to a publisher I sent him this: —

THE LORELEI AND THE LOST FAIRY.

On the banks of the Rhine sat a lovely Lorelei. Her eyes were blue as the corn-flower, her hair floated over her shoulders like a cloud of spun gold, and her smile was like the sunshine after rain. Her snowy, but soft, warm hands were clasped behind her head. She was resting after a playful plunge in the water. All these made her look like some painter's dream of happiness; at least, so thought a tearful, homesick little fairy who came near the Lorelei as if to worship, where he dared not hope for comfort; but the Lorelei saw his tear-stained face, and taking him upon the tip of her pretty white finger she asked him of his home and his sorrows.

"Alas! beautiful Lorelei," said the tiny, halfstarved fairy, "my home should be across the sea, but the little German boy who ought to shelter and love me, cruelly neglects and lets me wander friendless and alone, while he sits dreaming of you. I should now be a beautiful creature, strong and glorious, but for the carelessness of one of our own German children." Here the little fairy began to shiver with cold, and the Lorelei seated him in the pink palm of one hand, while she curved the other over him like a rosy shell, and breathed upon his ragged little figure until he was warm again; then she begged him to tell her the whole of his most pitiful story.

"I suppose you know, lovely Lorelei," he began, "that whenever a German child is born, a fairy is sent to grow with him, a fairy which is but a tiny baby fairy as he is a tiny baby boy. But alas! alas! the fairy cannot grow without the help of the child; and although the child may grow tall and strong without the help of the fairy, it will be only strength of body which the child will have, for he will never be great and manly without his fairy, though he should become tall as Karl the Great, and of Karl the Great people still say, 'Ah! there was a man with a will,' and I sometimes wish that I might have been his fairy companion, for then I would have been helped to grow, instead of being allowed to wander until I am lost," and the poor little fairy cried again; then the Lorelei held the sobbing mite against her warm cheek, and while he cuddled within a dimple that looked like a rose-petal cradle, the Lorelei told him she would go with him to find the German boy to whom he belonged, but the fairy said : ---

"Ach! I fear he will not take me, for I must trouble him about small things before he can do great ones, and he often refuses to hear me when I tell him to wash his hands, or properly dress himself; his patient teacher is ready to cry with me, because he will sit dreaming of great men and beautiful women, when he should be doing homely duties, and when he neglects me, I starve and shrink, and what is worse, he slips backward in his work, getting farther and farther from the great Kaiser, whom he still loves, and wishes to be like. Oh! if he would but take me home and listen to me, he would grow beautiful in mind, and I should not be a ragged, homesick little fairy, but a very prince among my brothers."

The Lorelei looked with wondering blue eyes at the shivering fairy, who had left the dimple in her cheek and was wringing his wee hands in grief as he stood on her finger again.

"Why, what are you?" she asked.

The little arms were folded, and the tiny fairy stood quite erect, taking on for the moment some of the beauty and dignity which was his birthright, as he answered in clear, sweet tones:

"I AM THAT WHICH WILLS!"

"Beautiful Lorelei! I want to grow, but I can only grow as my companion helps me, and allows me to help him. I might be like Bismarck's fairy, or like the good Kaiser's, but my boy thinks when he ought to act; loses himself in idle dreams of the Fatherland, when he ought to be doing something worthy of a native German, if it were but to tie his own shoes as well as Karl the Great could tie his; and then he bows his head and cries over his failures, instead of lifting his face and holding himself erect while he says, 'I will do these little things until I can do great ones,' and I, his fairy Will, grow weaker and smaller. Can you help me, O Lorelei?" and the little fairy knelt in the palm of her hand, while she made answer: "Take this drop of honey, poor little wanderer; it will refresh you," and she held a dewy kaiserblume to his lips, and when he had tasted the sweet honey he fell asleep, and the Lorelei wrapped him in her scarf, folded him upon her breast, and started upon a journey. Sometimes she swam across waters, sometimes she rested upon billowy clouds, and sometimes glided down the many-hued curve of a rainbow, but always her face was toward America and the German boy whose Will was lost; and when she found him sleeping as his fairy slept, she came softly

through a stream of moonlight, and, bending over his pillow, kissed his eyes, and ever after they more readily sought the meaning of the books; breathed softly upon his lips, and ever after they were more ready with song and with lessons; put her fingers upon his ears, and ever after they were more attentive to his teacher's words; and the fairy awoke, not on the bosom of the Lorelei, but in his own home in Ludwig's brain, where he grows more and more princely, and Ludwig more and more manly, trying hard, so very hard, to keep the dear little fairy on his throne.

The effect upon his will was better than I dared hope. His teacher wrote me that she read it to him every third day, always on condition of his having earned the right to hear it by obedience to his own good fairy Will. This supplied the needed stimulus for weeks in succession.

I knew a delightful, imaginative boy of seven in a Western city. He seemed ideally polite and

obedient to his parents, so I was quite shocked when his mother asked if I would advise her to chastise him for an annoying habit in which he persisted; viz., putting on his shoes and buttoning them every morning before putting on his trousers, which of course would not go on over the shoes; and this daily blunder rendered him quite miserable as well as his parents. He would cry with shame and disappointment because he missed his breakfast with his father, promising to try to remember, but so regularly forgetting that his parents began to suspect some latent stubbornness if not deceit in the occurrence. When I left this hospitable house I wrote a letter to the child, who was fond of all military displays and stories, telling him I was sorry to hear that General Bad Habit was quartered in his house; that I greatly feared my little friend would be reduced to the ranks if he did not make immediate resistance; might he not use my letter as a flag of truce to be placed in his shoe over night, informing General Bad Habit that our little boy proposed not only to

resist him, but to take away his title, sword, and shoulder straps.

The flag of truce was used in the shoe two or three nights, then placed on the mantel, and in less than a week entirely removed, and a letter from the triumphant child informed me that Bad Habit was reduced to the ranks, and my friend was master of the situation! Cases might be indefinitely multiplied, proving the value of stories not only in education, but in discipline of the child.

We have no right to tell stories thoughtlessly, nor is the pleasure of the audience a valid test of the worth of our story.

We have no right to isolate a story in a day's life; and just here lies the power of the story for a child — its vital relation to other things in that child's life. There is no bad habit, no wrong tendency or weak point that may not be attacked or propped by a right use of the story; no fact in nature or principle of right which may not be treated in the form of a story.

There is some fear among the most thoughtful, that our age of facts and statistics, of turning our wheels with Jupiter's bolts, is destined to crush even the fancy of little children. But a butcher's errand boy recently asked me what really became of Europa after she rode into the sea; he had looked the whole book through and was afraid Cadmus never found her. A lisping child of three years clasped his arms about my neck after a simple story, and said, "More! more! more!" And to draw him out I said, "More of what?"

And under his breath he whispered, "More of God."

A child living in the shadow of one of our great universities drew for me a picture of God with head of sky, and suns for eyes, his cloud garments buttoned with stars.

Need we fear? Surely neither poetry nor religion will die out of our world if we permit a little child to trim our lamp of life.

THE STUDY OF CHILDREN.¹

I.

THE CHILD A VOLUME TO BE READ.

What we are able to do for children is measured by the love we bear them. — MADAM PAPE CARPENTIER.

WHEN the disciples disputed about precedence in the kingdom of heaven, the Master set a little child in their midst, saying, "Except ye become as little children, ye shall in nowise enter into the kingdom of heaven." And before dismissing the child he gave utterance to those wonderful, perhaps mystical words: "In heaven their angels do always behold the face of my Father which is in heaven."

It is this volume of child-nature which I wish you to study with me—a volume written in

¹Course of lectures given in Detroit, Michigan.

many languages, and often translated to suit the mood of the careless reader. To one woman her child is a comic scrap-book, and she repeats and remembers all he says or does that appeals to her own sense of humor; to another he is a book of mysticism, and his simplest inquiries or most logical deductions are treated as prophecies or oracles; to another he is a precious revelation of divine love and mystery; while alas! to some he is only a little animal, his playfulness more troublesome than the kitten's, because he cannot be thrust out-of-doors when he annoys, and his chatter more trying than the sparrows' of early morning because it is indoors.

But the continuous and careful observation of children is in great demand, and a mother's opportunity is better than that of any other student. The work needs the scientific spirit and some preparatory training, but woman is surely equal to such a task.

Miss Buckley is an acknowledged authority in one branch of science, and Caroline Herschel in another. Art, literature, even politics and the professions, are adorned with the names of women; but in this particular field of investigation we have little or nothing that will stand the scientific test. Mothers have observed their own children, failed to record their observations, and can give us but haphazard and untrustworthy accounts even of physical growth, to say nothing of the more complex development of will and intellect. That which has been observed and transcribed puts us under obligation to the men who have done much which we have left undone in the nursery.

Plato saw a divine meaning in the plays of children, and did not disdain to consider the toys and games of children as affecting character, and would have had no stories told the children that were not first examined and approved by legislators.

Rousseau revolutionized society in France by his espousal of Baby's rights; Pestalozzi broke the paper chain that bound the children to their primers, and gave this advice to mothers: "Teach your children to pray, that they may be willing to work; and to work that they may never grow tired of praying." Froebel lived with the children, studying popular nursery melodies and games, with their effects upon mental development; and his spirit is revolutionizing the primary schools, not only of Germany, but of America. Darwin has given us a "Sketch of an Infant"; Sully a short chapter on Baby Linguistics. We are indebted to G. Stanley Hall for an impetus to study for ourselves, no less than for his valuable contributions to the literature which is as yet so meagre that we can find little that is authoritative, though there is much which is speculative. Preyer, a German philosopher, has carefully observed the development of the senses, will, and intellect of his own child, giving some comparisons with other children coming under his notice; and the book is a revelation of what we do not know. To make his book and Perez's "First Three Years of Childhood " really of the greatest service to us, we need enough investigation in the same lines for a basis of statistics.

All this is the work of men who might certainly excuse themselves from such effort with the apology which mothers will make — occupa-

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tion in other directions. Women have written books, and many of them admirable ones, for children; they have given us works on family government and methods of education; but what have we from their graceful and ready pens that helps to a knowledge of early .anguage, the imitative faculty, the rhythmic sense, or that period of savagery that sometimes enthralls even the best boys for a season ?

Usually woman comes in much closer contact with children than man; her nature fits her for more sympathetic interpretation of all the activities of childhood, and her sympathy need not vitiate her scientific exactitude of transcription; for, like the students of child life in the Worcester State Normal School, she can spare us her own conclusions, giving the simple facts observed.

We rear children, and we teach them, but how closely have we studied the deceptions of children that we may understand motives, and so treat the child for the cause and not for the symptom? Many a conscientious mother and teacher knows no middle ground between a lie

which may be shockingly immoral and dangerous to the child's soul, or harmless except as it is misunderstood by older people. I perfectly remember two lies, told in very early childhood, that affected my conscience very differently wit outside influence. I was sent by my mother to get an oak leaf for a pattern for needle-work, and near the oak shrub I saw a snake which so frightened me that I ran home without the leaf. My brothers met me before I reached my mother, and, as all snakes were 'saugers to me, I told them I had seen a 'sauger. They knew a difference between snakes and their habits, and, boy-like, wanted to tease me, and said, "'twas no 'sauger — it didn't have a red ring around its neck, now did it?" My heated imagination saw just such a serpent as soon as their words were spoken, and I declared it had a ring about its neck. Well, they urged, it didn't have great scales like a fish, and it wasn't a 'sauger at all. I sobbed that it had scales, and the teasing boys added that it must have had a little bell on its neck then, and I saw the bell, the red ring, and the

scales in my imagination, and was unable to separate the mental picture from the real sight, and have to this day as vivid a mental image of a snake of that description as I have of any grass snake that ever glided across my path. I remember that my brothers gravely accused me of lying, but I did not understand them, and my peace of mind was undisturbed. The other lie was never discovered, I was never charged with it; but my own moral nature, self-arraigned, created a cyclone of grief and terror. It was fear of the lie itself, for I had never been chastised, and have no recollection of the moral teaching which must have preceded it. I was very fond of babies, and, being the youngest of the family at that time, a baby cousin across the way received my care and affection. My mother had to restrain me from making myself troublesome, and I could only go when my aunt expressly wished my services. One afternoon mother was going away to tea, and I boldly announced that my aunt was very busy and had asked me to spend an hour with the baby, to which my mother readily assented. I went, not

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to the baby, but by a circuitous route to my father's barn, crept behind one of the great doors, which I drew as close to me as I could, vaguely wishing the barn and the hay-stacks would cover me; there I cried and moaned, I do not know how many hours, and when I went to bed I said my prayers between sobs, refusing to tell my mother why I wept. We need comparative reminiscences to aid us in a study of the children we daily meet. Miss Elizabeth P. Peabody has something valuable in this direction, not yet ready for publication, however, and she has given us some excellent psychological notes, but they cover a period in one child's life which is too brief for generalization.

Sir John Lubbock tells us much about the sensitiveness of ants and bees to color; Graber proves that some caterpillars show strong color preferences. What do we know of Baby's color sense? We have only lately learned that the majority of children of five years of age prefer yellow.

There are dangers to be avoided in the observations so much needed. Do not use pencil and

paper in the presence of the child. Keep the observations of each child by itself, with age, sex, and nationality of the child at the beginning, and the dates of succeeding observations. Do not repeat the child's sayings or doings in his presence. Do not stimulate him in the interesting and entertaining directions of growth.

The training goes hand in hand with the study of the child, and we are not modelling in clay, nor chiselling in marble. We are not writing on fair white paper; heredity has had the first opportunity at the page, and the mind is crossed and recrossed with hieroglyphic characters. It is our duty and our privilege to decipher, perhaps to erase, and to such study and such labor you are invited.

II.

PHYSICAL PHENOMENA AN ALPHABET OF FEELING.

People are beginning to see that the first requisite to success in life is to be a good animal. — SPENCER.

EVEN the untutored mother responds to much of the natural language of her child; mothers have ever crooned to their infants, patted or trotted them as they fancied their physical condition demanded. The nursery songs to be analyzed by us are those written by Froebel, or by pupils who have imbibed his spirit. These particular melodies are recommended because they are based upon popular nursery songs. It is well known to special students in this direction that Froebel went from house to house among the German peasants, collecting from mothers, nurses, and children even, the fragments of song that have been handed down from mother to child for many generations; this

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mass of material he submitted to his own keen but reverent criticism, culling that which was educational, casting out that which was deleterious, giving us his revision and commentaries in his "Mutter und Kose Lieder." We are so doubtful of the practicability of new theories that it seems but fair to preface this study with the statement that these games have been tried by believing mothers, and skeptical fathers have admitted their value.

The first one to be considered is that given for development of the limbs. The child lies upon a mattress, with legs unencumbered, and strikes out vigorously with his little feet. In earliest infancy these movements are reflex, but they are never meaningless; the child wishes do not confuse his vague desire with formulated thought — the baby lives in his feelings at first, and deeply rooted in this feeling is that which he wishes, viz. to measure his strength. He cannot so measure his strength unless some object is interposed against which he may push and kick. The mother may give her chest, or she may put a cushion between his feet and the footboard of bed or crib; but when he pushes those little feet back and forth under his petticoats, he is giving expression to a feeling to which mother or nurse should respond. The song for this game is adapted to German peasant life, but any mother can replace it with something equally adapted to her surroundings: —

"Come, you little kicking toes, Flax and hemp we will strike with blows; Oil for our lamp there flows. Clear it burns and clearer grows, When mother's love so clear and strong Guards little baby all night long."

The song is of great value, but the song without the object against which the feet may be pressed would be of little value. Feeling lies deeper than thinking; the physical need foreshadows the spiritual; it is therefore no farfetched conclusion that the child left to kick the air without this resisting force might get thereby a lamentable moral twist. St. Paul spoke as to children concerning those who seek the Lord, if haply they might feel after him and find him, though he is not far from any of us. We sometimes say, glibly enough, that the parent stands to the infant as God to us, and then we are indifferent when asked to apply this in our practical, every-day relations with children.

The next game is to lift the child from the mattress almost to the sitting posture, and, without removing the hands from underneath, so slacken the hold that the child will get an exhilarating shock — a brief instant of separation from the mother's hold, and a certain return to her loving, waiting arms. Again the feeling underlies the thought, and our mature experience should hallow this game for us and the children. A momentary fear that the "everlasting arms" are not underneath us, we find has been a high-tide moment when we review our lives; and the spiritual development of the child is subject to the same laws as our own.

As soon as the wee hand can grasp its mother's finger, a small worsted ball, with string attached, may be given the child, by which the muscles of the hand will be strengthened. There are practical reasons for giving a ball to the child, which we will consider before the theoretical ones. He cannot hurt himself with the ball; it may be dropped or flung without injury to others or to furniture; it can make no noise; it may be carried to the mouth without injury to child or plaything.

That the ball has been a fascinating toy, outliving the rattle and the Noah's ark, rests upon a deeper reason. There must be some subtle satisfaction to us in its unity; the form lends itself to the laws of the physical universe more readily than others, or it would not be found in our veins as in the rivers, among the planets as in mechanics, revealed to us by the microscope no less than by the telescope. From nursery to university the boy carries his ball, modifying it to suit his needs as his skill is developed, and the development of skill involves mental growth.

In the cradle the ball may become a centre of attraction, around which impressions both physical and spiritual may cluster. Place it in the little hand, and withdraw it again and again, singing some of the Froebel ball songs, and the child will get its earliest vague impressions of the me and the not-me; of time, present, past, and future, and of space. We cannot, even with a scientific imagination, place ourselves back of our formulated thought into Baby's feeling, but we read in his satisfied or expectant eye, Something not me is here; it has been here, it will come again. In this play do not suffer the ball to be withdrawn long enough to cause impatience; and employ it but a few moments daily, as an educational influence, to be used with discretion. It has proven potent in crystallizing thought in the brain of the feeble-minded child. Feeling leads to expression, and we have tried to deepen the one by helping the other.

The ball has another important educational use. Little is really known of the significance of color; it has been left largely to the poet's realm; but Science has fixed her eye upon it, and we wait for her latest word. Perhaps nothing more interesting has been given us than the array of individual peculiarities of color perception as furnished by Galton in his "Inquiries

into the Human Faculty," for we must care more that some man sees the month of January as a blue circle, or the letters of his own name in various shades, than that certain caterpillars show a marked preference in colors; we must care more that the majority of little children recognize yellow earlier than blue than that earthworms and ants are unmistakably susceptible to colors, as Graber and Sir John Lubbock have proven. Leaving these scientific observations, and taking the more familiar poetry of color, we must admit that the revelation concerning the walls of the New Jerusalem has some foundation in fact, or the fancy is an empty superstition; that the significance attached to color in altar cloths and church decoration has something upon which to rest beside tradition, or it would not have survived until the present day. Putting aside the associations of colors and their possible spiritual meanings, we cannot ignore their physical effects.

Some people are nauseated by certain combinations of color; some have sick headache in consequence of inspection of shades; people in normal health find it impossible to apply themselves to close mental effort if the curtains of the room are of an annoying shade.

Preyer's child was unmistakably impressed by a rose-colored curtain on the twenty-third day after its birth, and Preyer says : "In my observations I have had especially in mind the prominent part played in the mental development of the child at the earliest period, by the sense of sight."

If color appeals to the sense of sight so early, ought we not to take it as a valuable aid in early education? and in what better form can we embody color than in that of the ball?

Passing to a later stage of development, we have Froebel's version of "Pat-a-cake":—

"Baby wants to try to make us Such a cake as he can bake us. Pat the cake; I'll show you how. Baker says, 'It's quite time now; Bring the dough, as you are told, Ere my oven gets too cold.' Baker, here is a nice large cake You for Baby so kindly will bake. Deep in the oven, my little one, Push in your cake; it will soon be done." With this and kindred games, the child is brought into conscious relations with the outside world, and may be given valuable impressions of the interdependence of mankind. We should not forget the moral power of stories, and we may closely connect with this song Dr. E. E. Hale's story of "Our Daily Bread." An old nursery tale, which I never saw in print until I adapted and published it in my own book of stories, impresses the same lesson of interdependence.

There is, we know, a dangerous undercurrent of contempt of service which mothers find difficult to eradicate; it is believed that the wholesome use of such songs with talks about the baker, the miller, the farmer, and all who contribute to the furnishing of the bread, and the dependence of all these upon the Giver of rain and sunshine would fortify the child against future contempt of those who perform for us any service whatsoever.

The growing mind reaches upward; let us furnish thought-centres that are above rather than below its grasp. We may well take the little child that is in our midst and reverently consider it.

THOUGHT SUCCEEDING FEELING; RHYTHMIC SENSE AN INTELLECTUAL LEVER.

III.

Our aim should be to present to the mind all knowledge in such a way that it may help our pupils along to the undiscovered pole of human destiny. — G. STANLEY HALL.

OUR strongest intellectual barks are, after all, safely anchored in our feelings. The baby has many sensations both pleasant and unpleasant before that mental activity which we call thought is unmistakably begun, for we are not of the "intueetion folks who will have it that a babby's got as much mind as Mr. Gladstone, ef it only knew it."

The reasoning process, however, is well established before the baby can put his thoughts into words.

Preyer noticed an indisputable acoustic experiment in a child less than a year old. The child struck with a spoon upon a plate, accidentally touching the plate with the other hand at the same time, thus dulling the sound; the plate and spoon changed hands, and the effect of the opposite hand was tried upon the plate, the child listening expectantly, and repeating the experiment many times. Any observer, even the most careless, must have noticed a child's eager inquiry into causality, following with his eve the string from which a ball is suspended to the point of suspension; looking for the moving hand or figure which casts a shadow, or for the person whose voice is heard from another room. The crying of a child to be taken out when he sees his cap and cloak shows that he has drawn some logical conclusions from past experience. It is only by observation of the child and his expressions that we can arrive at certain knowledge of his capacities. We may know some general laws of development, but there is such a wide difference between cases that the need of special study of the individual will probably never be less urgent, although more definite knowledge of general rules will be of great service.

We shall now consider the rhythmic sense, inherent in all children, and its importance as an intellectual lever. We know that the outer forces of nature are subject to a law of rhythm; there seems the throb of a pulse in fire, and a steady rise and fall of sound in the cataract of Niagara; the cyclone moves under a law of time that we practically observe, calculating its progress and preparing for its arrival; a law of harmony governs the planets in their courses, so that "the music of the spheres" is not merely a figure of speech; our hearts beat with such rhythm that any departure from its regularity gives us great alarm. Something in the child's nature corresponds to that outward harmony, so that rhythm calls unto rhythm, as deep unto deep. This explains why the child is hushed by rhythmic movement, which need not be voiced, as we daily see in the nursery, where the child is patted, swayed in the arms, or rocked instinctively "in time." Every nurse feels that a sudden stopping of the swing of the cradle would startle the baby. Nor do we outgrow this pleasure in rhythmic movement. Sing, if you

please, a few bars of any familiar air, agreeing to stop instantly at a signal from another, and let the signal come before the musical pause is reached, and your own disagreeable sensation will bear witness to that inner sense which should not be rudely jarred.

We see that the mother's instinct leads her to sing to the child, and to give him rhythmic movements; but we need an intellectual and moral power added to the physical one, and this is found in some of the songs recommended. Every child is strongly attracted to the sound and the movement of the clock pendulum. A little talk about the clocks that told the wrong time brought the attention of an untruthful child to truthfulness, and, without a word from the outside as to his habit, the child, though but four years old, would blush and correct himself, on beginning a false statement, when his teacher glanced ruefully at the clock, which became a symbol of truth to him.

If we attend to the things which command the child's interest, we may find in them many an aid to good government. By a little study we may abstract from many things the one point of interest — as, for instance, the life in the flight of birds, in the movement of fish, and in the cat or dog, is undoubtedly that which attracts the child; there is no life without movement, and no movement which is not subject to the rhythmic law. If, therefore, we intelligently use this law, we gain something in the increasingly difficult business of home management.

Preyer's baby noticed the ticking of a clock on the one hundred and first day of its life. I showed a clock pendulum to a child nine months old, and, taking his hand in mine, moved it back and forth in time with the pendulum, singing one of the tick-tack songs: —

"Come and see, come and see How merrily the clock doth go. The pendulum swings to and fro, And never from its plan doth go; Swings first to the left and then to the right, All the day and all the night, Tick-tack, tick-tack, tick-tack."

This was repeated three or four times in one day; the following day, when he heard the air, he turned his face to the clock, and on the third day moved his own hand on hearing the words sung, looking wishfully at the clock.

I gave my watch to a baby six months old, and she carried it to her mouth; I took her hand in mine and carried the watch to her ear, then to mine, repeating this many times, and on letting go of her hand she continued the movement with evident pleasure, although she sometimes made irregular movements toward her mouth, from muscular habit. Her mother joined the game, and the baby's hand was directed by mine to her ear, then to my own, and lastly to the child's. A few successive times and the child was soon able to make this circuit, but before she was tired, or had satisfied herself with her new power, the mother turned her ear away from the proffered hand, and seized the watch in her own mouth; which so enraged the baby investigator that the pretty and useful play was interrupted by angry shrieks, which perhaps amused the mother as much as any other exhibition of her child's nature; but to the thoughtful person it seems like a stupid interference in an intellectual pursuit, and a provocation to anger, which, if frequently repeated, would demoralize a child.

There are a few songs in which the rhythm is so strongly marked that they are of great value in rousing the child's intellectual activities. "The Mill," "See-Saw," "The Carpenter," "Shoemaker," and "Blacksmith," have proven most helpful. In the Boston School for Feebleminded, the children in the kindergarten have an especial liking for the "Blacksmith," which struck me as remarkably coinciding with the tastes of feeble-minded children under my own observation; the rhythm and the open vowel sounds of the chorus ("Strike, boys! strike, boys, while the iron is red hot") furnish some children their first opportunity of enunciation, and, like other children, they rejoice in every acquirement. I went from child to child as they were singing and gesticulating, and all were gleefully uttering, "i oy, i oy, i i ĕd ot." Marching songs are also valuable aids in mental development. I took a feeble-minded child of six years and nine months in my arms, marching to and fro while

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I sang little marching airs, stopping long enough between songs for her to get an impression of the difference between moving and standing, and it was but a few days before she began to make rhythmical noises as we marched, and in a short time she was able to walk with the aid of my hand to steady her movements, although she had never before been roused to any desire for walking. With the help of these and kindred aids her will has been roused to hopeful activity, and she not only acts in response to her will, but has arrived at some healthful inhibitions.

There is room for much study of the sensibility of children to music; the effect of minor tones upon children has only been noticed in isolated cases. I lately saw a baby of three months that would put up its lip in most pathetic fashion when his father said, "Poor little boy! poor little boy!" in a mournful tone, and if the father continued, tears would fill the child's eyes; but tears gave place to laughter when the tone was changed and the father said, "Happy little boy! happiest little boy in Detroit!" The same child is perceptibly affected by certain airs upon the piano-forte.

Observations carefully written out, with age, sex, and nationality of child, would have a psychological value. The age at which a child becomes able to keep 'time with hands, feet, or head, with the history of its failures, would be of more than family interest, and it is only by many such transcribed observations that we can arrive at any knowledge which has scientific value.

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FINGER SONGS RELATED TO FAMILY LIFE AND THE IMAGINATIVE FACULTY.

IV.

The understanding is not a vessel that needs filling; it is a fuel that needs kindling. — PLUTARCH.

HERR SCHULTE observed a child that looked attentively at its own hands in the sixteenth week of its life. I remember a child that used its thumb and forefinger with amusing deftness at nine months of age. How long he had done this when I observed him his mother could not tell. It seems strange that this universally interesting period in the child's development has not been observed with accuracy, or recorded, so that we may find the average age of the normal child's first notice of his fingers and toes. Some mothers think children observe their hands at the age of six weeks, and I have seen a child of six years who had not yet reached that stage of mental development. The chick just from its shell can pick up its food with unerring strokes of its tiny beak; the lamb has the use of its legs the first day of its life, the young animal having an inheritance of muscular power quite in excess of that of a child. But the glorious birthright of man is self-developing power.

A little observation teaches us the individuality of the hand. People who carefully train the face to immobility, and pride themselves upon allowing the features to tell no tales of passing feeling, often betray many emotions through unconscious attitudes and gestures of the hands. Dr. Warner gives an entire chapter in his book, "The Children: How to Study Them," to the importance of these unconscious habits of hand position and motion. Much may be known of physical conditions from the manner of using the hands, and physical conditions are often, if not always, closely interwoven with mental and even spiritual life.

Dr. E. H. Clarke, in "Building of a Brain," demonstrates that brain power depends largely upon activity of the hands, and ambidexterity

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is now cultivated with direct reference to its value in this direction. One of the strongest arguments in favor of manual training is the benefit to the brain in such practice.

Le Conte, in "Evolution and Its Relation to Religious Thought," speaks of the recent startling advances made in physiology, and speculates concerning future developments in this direction, saying that we may find a right-handed rotation of atoms associated with love, and a left-handed rotation associated with hate, or a gentle, sideways oscillation associated with consciousness, and a vertical pounding associated with will. The hands of the Venus de Medici, Diana, and the Dying Gladiator furnish examples of various attributes wrought in marble. In literature we have perhaps nothing more characteristic than Silas Lapham's hairy paw, and its resemblance, when gloved, to a yellow-cased, sugar-cured ham. Delsarte emphasizes the hand as a means of expression. Clara Morris, in "Miss Multon," makes one scene almost tragic by the interlacing of her fingers as she stands with her back to the audience, uttering no word, but, with hands clenched behind her, and face probably smiling upon her tormentor, she gives marvellous expression to the agony of her soul. One can never forget Booth's finger interpretation of Hamlet's suppressed passion in the scene with Guildenstern, while his more eloquent lips declare: "Call me what instrument you will, though you can fret me, you cannot play upon me."

Salvini's hands made his Italian Othello almost as easily understood as if it had been rendered in our native tongue.

We must remember that the child's hand is an instrument of which he has to learn the use by a very complicated and slow process. We may help him to the highest use of it, or leave him to blunder even in mechanical skill with it. When he first becomes conscious of possession of hands, we may wisely introduce some of Froebel's finger games, which strengthen the muscles and aid in deftness of hand, while the mind is directed to the family relations as represented by the fingers. Taking the little thumb and each finger successively, we may sing: — "This is the grand-papa, This is the grand-mamma, This is the father dear, This is the mother dear, This is the little child — See all the family here."

This game helps the child in differentiating his fingers, brings him back to the unity of all -many fingers and one hand - as there are many individuals and one family in his little world. The dawning consciousness of the child so turned to the family relations is surely better than the old nursery method of playing "This little pig went to market." The superiority, even from the physical side of the songs, is immediately seen, the fingers being destined to more important work than the toes, therefore needing more attention to the development of flexibility. The particularly meretricious nursery song -"This little pig said, I'm going to grandpa's barn" — should not pass unnoticed. In this we have boastfulness, curiosity, proposed theft, talebearing, and defeated effort on the part of the smallest pig, who cries with grief because of his lack of strength. Do not imagine these things never stir the deep spiritual fountains of child nature — they certainly do.

The early power of a mother's example can hardly be overrated; on her depends much of the child's future estimate of the sacredness of the family relations. If every man could truthfully give such an account of home harmony as Ruskin pictures in his little autobiographical sketch, we should soon have the millennium. We are ready to admit that daily life sinks deeper than maxims; but we are apt to forget it, especially when the little children are our only observers. We agree with Carlyle that what we are is more than what we say; and then we live according to our inclinations, and hope to see the children do better than we do because we advise them well. Truly, there is need, in many quarters, of less good talk and more right action.

If teachers need harmony in all their relations with associates and subordinates in order to make their work effectual, how much more the mother needs to live in an atmosphere of

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charity in every branch of the home life! Better that she should suffer an indignity, a cruel wound to her self-respect, the word that cuts like a sword, or exasperates like a pin-prick better to suffer all these in dignified self-repression than that a little child should catch a note of discord in the home life. A mother must be to her mother what she would have her child be to her.

A poor woman went one day to the kindergarten, where she heard her little girl singing, "This is the mother good and dear," with loving glances at the tiny thumb, which became to her, for the moment, the ideal mother; and the woman, overcome with self-reproaches, left the room in tears. The teacher, following her to offer sympathy in any case of home trouble, was surprised at the hurried and sobbing confession: "I am not a good mother; oh, I am not a good mother, and my little girl *knows* I am not! What shall I do?" It is hardly necessary to tell that the self-accused mother became the selfreforming woman, and another family is struggling to make the home what it should be. Introducing the child to the outer world by means of finger plays is also wise. Holding the left hand up with the closed right hand covered by it, one may sing, as the fingers of the left hand spring erect : —

"My pigeon house I open wide, And set all the happy pigeons free. They fly o'er the fields on every side, And light on the tallest tree. But when they return from their merry flight, We'll shut the door and say good-night. Coo-roo, coo-roo, coo-roo, coo-roo, Coo-roo, coo-roo, coo-roo, coo-roo."

The fingers of the right hand flutter about, and lightly rest on the head, as on a tree, returning to the pigeon house as indicated by the words.

Another valuable finger song is this: —

"See the fishes in the brook, Sinking, rising — look, look, look! Now they are straight and now they bend, Their merry playing has no end. See how within the shallow stream The merry little fishes gleam. See how they dart along the ground, Chasing each other around and round, Chasing each other around and round."

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In this the words themselves describe the motions. A very effective story can be made from the material of these songs. The birds invite the fishes to come up to their nests, but the fishes decline because they cannot fly; but as the birds can walk, they are asked to come down to the bottom of the brook, but they cannot do that, as they are made to live in the air; and after a happy hour of chatter and grateful comparison of mutual advantages, birds and fishes agree that air is good for wings, fins for water, and the little boy who hears the dialogue rejoices that he lives in home love, and needs neither wings nor fins.

Through these and like songs I helped a feeble-minded child of six years to her first observation of her fingers, which was soon followed by an attempt to use the thumb and forefinger in conjunction.

With the most scrupulous care on the part of the most conscientious mother, it often happens that very young children acquire dangerous habits of the hands. Vicious tendencies, quite improbable if not impossible, are often ascribed to the child, and remedies almost as hurtful as the disorder are sometimes used. These games are found admirable in the correction of such habits; the child that sucks its thumb refusing herself that luxury when the thumb is put to sleep with the song given above.

The imagination of the child is healthfully stimulated by these games; and through his imagination his will may be strengthened in right directions — for we are learning that selfwill and self-direction are good for the child.

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v.

SONGS AND GAMES FOR THE CULTIVATION OF THE SENSES: THEIR RIGHT USE AND THEIR DANGERS.

May you give bread to men; but my aim shall be to give men to themselves. — FROEBEL.

CERTAIN fruits and grains deteriorate if left to nature, and many a weed becomes a lovely plant by the slow processes of cultivation. Preyer says that before a sure sign of will, of memory, judgment, inference in the proper sense, is found, the feelings have expressed themselves in direct connection with the first excitations of the nerves of sense. Carpenter's "Mental Physiology" treats the senses with a dignity which deepens the impressiveness of the Biblical assertion that our bodies are the temples of the living God.

In past times, and in isolated cases of our own day, man, feeling his way Godward, found,

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as he thought, a hindrance in the senses; to crucify the flesh was therefore thought not only an act of devotion, but a means of spiritual growth, and the words of Agassiz, "A physical fact is as sacred as a moral principle," could hardly have been written by a man in the sixteenth century. A late writer on the problem of evil says: "As the senses are the necessary feeders of the intellect, so the appetites are the necessary nourishers of our highest moral sentiments. And yet the struggle for mastery of the higher spiritual with the lower animal is often so severe that the latter seems to many an essential evil to be extirpated, instead of a useful servant to be controlled.

All that we call evil, both in the material and the spiritual world, is good so long as we hold it in subjection as servants to the spirit, and only becomes evil when we succumb. All evil consists in the dominance of the lower over the higher; all good in the rational use of the lower by the higher. It is only by action and reaction of all parts of our complex nature that true virtue is attained." With this view of the senses and appetites we may well advocate cultivation, which involves the use of the harrow and pruning-knife as well as good seed.

The first evil that threatens the baby is gluttony. Nature left to herself is an unsafe guide; first sensations of discomfort are allayed by feeding, and the child would apply this sovereign remedy for all ailments and discomforts. Sometimes the mother uses as little judgment as the child, and relief for an over-full stomach is sought in more feeding, with a ridiculous application of "similia similibus curantur." Children of but three years of age are sometimes little gormands, whose best correction might be found in the careful use of Froebel's Taste Songs. Through these the child may be led to classification of edibles into nuts, fruits, vegetables, etc. Talk about the processes of growth or manufacture will prevent the game from deteriorating into mere eating.

A hasty glance even, into an encyclopedia will furnish the basis for fascinating stories of a lump of sugar, history of an orange, adventures of a cocoanut; and the child may soon be led to telling the story of the material tasted, and will naturally forget the grosser side of eating in such investigation of the processes of nature and art in the production of his food.

Smell, that more delicate sense so closely allied to taste, may also be utilized in classification—and the educational value of classification is well known.

In tasting, we destroy the form of that upon which we act; but we enjoy the smell of the rose, and the rose is not destroyed, though it is by a process of dissolution that the flower gives up its odor: an early interest in botany may be awakened by this game. The sense of smell is claimed by some to be more closely related to the spiritual life than the other senses; we are perhaps too forgetful of the ministrations to a higher life which this refined sense affords. By the law of association the sweet-brier that perfumed our playroom when we were children, or the favorite flower of some departed friend, becomes a power in our lives. The locust blossom, the wild violet, the golden-rod, by their fragrance may recall a hallowed hour or place.

Perhaps not one reader of this but will have her own tender thoughts in this connection, thoughts which lift her heavenward not only in feeling, but control many an action of her life, for which she is debtor to the subtle sense of smell.

The child with covered eyes guesses the name of a flower by its distinctive odor, and led by the song takes care of the flower which has ministered to his pleasure, instead of casting it aside to wither and fade when his enjoyment of it has passed.

That the sense of touch may also tell us the names of objects and persons may be taught by blindfolding the child while his hands discover the secret. A very nice sense of touch may thus be acquired.

For the cultivation of the ear a charming game is provided. A child stands in the middle of the room blindfolded, while others march around him, singing. At the tap of a stick a child steps behind the guesser, singing alone a part of the song, and the blindfolded one guesses from the voice who it is. Children become marvellously quick in recognizing tones in this way, and any kindergarten where this game has been played a few months will put to the blush the same number of older people who wish to try it, unless they have had similar training. There are some popular games of this nature played by young girls that are vulgar in the extreme. I saw not long since, at a children's party, a game involving the same principle, but worked out in a coarse manner. There was no singing, but the girl designated grunted in a swinish manner, her name being guessed by this vocal expression. The girls very readily accepted the suggestion of a prettier way of playing the same game — another proof of the ease with which the games as well as the studies of children may be directed by a sympathetic older person.

For the very little ones, who find the above game too complicated, the simple call of "cuckoo! cuckoo! cuckoo!" may be substituted, the blindfolded child directing its steps toward the sound; even the handkerchief may be omitted for the toddler, the singer secreting herself behind a door or armchair. There is a theory, not yet fully tested, that a disorder of the ear exists, corresponding to color-blindness, or possibly to near-sightedness. My own investigations in the public schools of Boston under the direction of an eminent aurist, Dr. Clarence Blake, certainly prove the existence of a disorder of the ear, but its exact nature is not yet known.

If the disorder is curable, such training of the ear as these games involve must be of great value.

Perhaps it is not generally known that a child learns to see by a slow process, as he learns to walk. Some parents and teachers attribute the incorrect estimates of things seen to lack of judgment, but it is no doubt true that for a long period the child sees but dimly, or only in outlines; this would partially explain his keen enjoyment of crude drawings. A child once drew a mouse for me with one stroke of his pencil and a dot; the long curved line represented the tail, and the dot the eye of the mouse, and he was perfectly satisfied with his representation of what he had seen. Recognition of various qualities and objects by sight is a game which may be made of great physical and intellectual value. A small number of objects, the number to be increased as the child's ability improves, may be placed in a basket covered with a napkin; give the child a peep under the napkin, and then ask him what he has seen. Memory and language must now be brought into requisition, and in this simple play, sensation, perception, memory, language, and will are involved. The complexity of the game may be increased as the child is able, by adding to the objects their number, color, form, and material.

The same purpose may be accomplished by varying the game, holding the objects in the hand, or making pictures on a board, removing a screen for a moment's observation. Another excellent aid to sight recognition is found in timing a child at a window, giving him five minutes for seeing as many things as he can in the time allotted; he may name them as he sees them at first, but he will soon enjoy the memory game connected with it. A child whose senses are thus cultivated is in small danger of thinking too much about himself, for he is drawn to observation of the world outside and to an appreciative interest in the processes of nature and the wonders of man's mechanical skill, and if he does not look reverently from created things toward the Creator, it will be because he is turned aside by those who are guiding him.

Observation and transcription of intellectual development through cultivation of the senses is much needed.

VI.

NATURAL PHENOMENA RELATED TO THE SPIRITUAL LIFE OF THE CHILD.

Children marvel at the phenomena of nature, while grown people often think themselves too wise to wonder. — Alex. BRAUN.

Some years since, under the direction of Dr. G. Stanley Hall, I made some studies of the notions of little children concerning natural phenomena. Their ideas were a revelation to me. They thought the sky was made of bricks, that it was wall-paper, that it was the floor of heaven. I found an attenuated, half-dressed little boy of five years at the North End in Boston, whose face glowed with eager anticipation when he told me that he expected to help God make thunder when he should get to heaven; and on being questioned how it was done, he answered that they kicked balls around there. Some children thought the thunder was God hammering out other worlds. Note the likeness between this conception of noisy creative activity and the ancient ideas of Vulcan and the Norse beliefs concerning Loki and his occupations. Their thoughts about lightning showed the same variations, according to the child's individuality and environment: to one it was "God pointing his finger at me"; to another it was God opening the door of heaven to look out. To some children the clouds were lace curtains between us and heaven. Is there anything more graceful than that in the Greek mythology? A child of four years, being asked one rainy day where the rain came from, answered, as if it had been long settled in his mind, that the ice-carts up there were leaking.

Country children have superior advantages in their nearness to earth and sky, but no lovelier conception could be found in a child's mind than that of a boy at the North End, who had never seen the Common or Garden, and lived at the top of one of the crowded tenements in that dreary region. He said, with radiant though dirty face, that there were many diamonds in heaven, and he should have some to play with when he got there; on being questioned as to where he had ever seen any diamonds, he answered, "In a window on Tremont Row, and on a patch of grass in Miss Maloney's yard, sometimes real early in the morning!" Rain nearly always represented to these children some activity of God. He was sprinkling his garden, upsetting buckets, turning the faucets, etc.

The sun, moon, and stars were usually personified; some thought them bright beings — men, women, or angels that walk, fly, or run in heaven or in the sky, God holding them by the hand or they would fall. A child whose feet were stained with blue stockings told his mother some of the sky must have fallen down and he had stepped in it. Like the ancient Greek, the child projects his life and his love into the starry firmament. It is a subject for grave thought that to the little child the heavens and the earth are a unit, and that unit includes the law of love — love typified by the family relations. If we could remember that " the spirit of God moves upon the child's spirit as the ocean sways the seaweed," then we should begin the lesson indicated by the Master when he placed the child in the midst of the bickering crowd and bade the disciples to consider it.

Let us examine the symbolism in which the child lives. We express ourselves through symbols, our thoughts often refusing the smallclothes of words that do not have sufficiently expansive meanings. We do not reach an intellectual plane where we lay aside symbols; the most exact scientists are forced to use them, the language of chemistry even being a language of poetry when we put it word by word to a critical test. Tyndall, in his "Scientific Uses of the Imagination," warmly defends the groundwork of symbolism. If we of maturer years are so dependent upon symbols, both in intellectual and spiritual growth, shall we not look for a like, and even greater, need in the undeveloped life of the child?

The child sees men and women, fathers, mothers, and children, in the stars; they are there by comparison. Out of comparison the child arrives at abstraction, and from abstraction the

child grasps the Infinite. He does not study his process of growth — all healthy growth is perhaps unconscious; but the family lives in and by love; love is the element in which the stars exist. Mother-love leads to God-love, and the child climbs from his mother's arms beyond the stars, finally reaching the abstract knowledge that only that which is a reflection of God will abide eternally, and that which reflects spirit is spirit. There is a significance in the child's desire to reach the stars which we would better gravely consider than to laugh at, either thoughtlessly or contemptuously. The soul that holds its aspirations in spite of all temporary and temporal hindrances will as assuredly find its way back to God as the stars move in their appointed ways.

The material world we believe to be a manifestation of the Creative Thought, and as we study the material world we are impressed with the many-sided glimpses of that Creative Power which it affords us. We climb toward God's thought on stepping-stones of material things, up, up among the forces which seem nearer and nearer the spiritual, until we find ourselves in the light which reveals Him to our spirits, and nothing in His created world is ever again common or unclean.

The delight of the baby in glancing sunbeams has a cause as sure and universal as the delight. The child that will shudder and cry at sight of shadows on the wall will clap its hands and laugh when the prism sends its rainbow colors dancing through the room. Light has ever been a symbol of good. In the Norse mythology the gods dwelt in the light of Asgard, while the dwarfs worked in dark caves. In their best moments men have ever turned to the contemplation or worship of light. It has been the god of the child of the race. The Hebrews kept the sacred shekinah burning upon their altars day and night. It might be thought that science would rob the light of its spiritual significance; but so much stronger are spiritual meanings than we can comprehend, that an essay of Tyndall's upon sun rays lifts one from the contemplation of natural forces to spontaneous worship of the Source of truth and life.

Scientists, like the prophets of old, speak with deeper meaning than they know. Thoughts concerning the light, from Milton, from Goethe, from Dante, flutter about us like birds, and we feel that man would have found God by the single ladder of light had he been left with no other revelation ; but revelation addressed to the feeling which underlies knowledge gives us the sense of unity without and within, above and below, as we listen to its voice, "I am the light," "Walk in the light."

Froebel's song of the Light-bird, and of the moon and stars, will help the mother to feel the divine fire in her own heart which seeks all its dark places with its illuminating power, burning out unworthy aims, causing her to avoid secrecy, and to cultivate truthfulness not only of speech but of action in all her relations with her child, whereby they will tread upon the adder of evil, and together hasten the coming of the day which shall need no light of sun, moon, or stars, for God will give the light.

VII.

THE DULL CHILD THE WISE MAN'S PROBLEM.

I know so much I hardly know myself. -- FIVE-YEAR-OLD Box.

WE may watch the dawn of thought in a young child and learn lessons which are hidden from us in the larger volume of the mature mind. In its unconsciousness of the possession of mental faculties it presents to the philosopher unequalled advantages for study. A retentive memory does not make a bright child; I have seen a case of unimprovable feebleness of mind where dates were so retained in the memory that the child was a prodigy studied by university men. Quickness in computation is not an indication of brightness of intellect; abnormal ability in this direction may exist in a mind quite incapable of effort in other directions. Speeches that are usually accepted as indications of acuteness in children will not often bear the

test of candid analysis. A boy of five years begged for a sister, and was told to wait until babies were cheaper; he had a ticket for an entertainment on which he found the usual "children for half price," and ran to his mother to demand the promised sister, as they were now selling children at half price. We laugh at this as if the child were consciously witty, but the statement was, to his mind, as free from humor, and his acceptance of it as serious, as in scores of cases in which he would have been rebuked for lack of common sense. We know that children do not see the occasion for laughter in half the things we account funny. We are sometimes as cruel in our merriment as at others we are unjust in our blame.

A degree of absent-mindedness sometimes accompanies a depth of thought which is quite precocious; we must religiously guard our expressions of blame in the presence of these children.

On the street my attention was once drawn to a knot of boys ten or twelve years old, one of whom proved to possess remarkable mechanical

skill. Having a paper that admitted me to any school in the city for purposes of investigation, I went to his department to study the case. His teacher asked how I happened to select him from among others in her room, as she was not aware that he had any especial ability. The particulars of his development were referred to Dr. G. Stanley Hall, who said some memorable words that should be written upon the walls of every schoolroom: "Tread softly here; you may be in the presence of genius." The point to be noted is, that a boy of unmistakable individuality, and of such peculiarity as to draw from a philosopher a remark like that, was, in the eyes of his teacher, quite an average boy. The teacher might have looked daily into the mysteries of this mind but for the stultifying pressure of grade work too commonly forced upon teachers. In our studies in primary schools we found that the children accounted bright were those who were quick in number lessons. The children accounted dull were those who were shy and slow of speech; but these were they who held those beautiful notions of

the heavenly bodies, and those airy imaginings about the clouds; children who were uncommunicative without being sullen, who thought their own thoughts, losing their way in "tables" because they were wandering in a region where it made no difference whether two and two make four or five.

A child of abnormal mentality was placed in my kindergarten at the age of three; she would not look at other children, did not notice music nor take the brightest toy in her hands, and showed no pleasure even in sweet tastes. She found amusement in tearing her aprons from hem to neck, but would take no substitute of old calico, and showed no gleam of satisfaction when she found a thin place for a starting-point; she even did this in a listless fashion, and not as a regular occupation. After some months of this stupor she accepted a box of beads, looked at bright balls and sometimes at the children when their movements were uncommonly rapid; at the end of a year she would walk if urged and supported by both hands. In the second year she developed some skill with her fingers

and much interest in the games, but she was subject to violent outbursts of temper, the causes of which could seldom be discovered. She was spiteful toward children and teachers alike, and after a passionate outbreak was not sunny, but unusually quiet, the rousing of mental activity seeming to culminate in a burst of wrath, during which she would scratch and bite, and then subside into quiet which was due to exhaustion rather than to penitence. This stage of development lasted six months or more, and one day the teachers looked at each other in surprise, one inquiring, "When has J. been in one of her tempers?" The day could not be recalled; the days of wrath had passed away and a new era dawned. J. became the most trusted care-taker of the little ones; she never tired of helping the smallest children with wraps and rubbers, and would walk half a mile to restore a veil to some careless child; her remarks were quaint and full of humor, and she became to us a most companionable child. She brought her doll daily, taking beautiful care of it and its clothes. She was retained three years in the kindergarten, and in the last year she was untiring in her efforts to master both ideas and things. She is now in grammar school, among the first in her class, slow to grasp but sure to hold ideas, and has shown marked musical ability; her hands, so slow in skill, are remarkably beautiful, combining strength with flexibility. She has excelled pupils of her age in piano-forte lessons, her teacher telling me she is an uncommonly promising pupil. I was often assured that she was an idiot when she first came to the kindergarten.

But there are dull children? Doubtless; but the most hopelessly dull are the scatter-brained ones who catch and toss words, and facts even, from tongue-tips without turning them over in their own minds.

But it is the feeble-minded children that I wish to commend to your thoughtful consideration; and let us acknowledge our indebtedness to these unfortunate children, who furnish us with laws of mental development in large type. The normal processes of mind are so rapid that study of them is somewhat impeded, but the abnormally slow mind gives us invaluable aid. To study the mechanism of a locomotive one must see it at rest, or when running at slackened speed. Men go to insane asylums to learn about aberrations of mind, and measure the healthy brain by the peculiarities of the diseased one.

If the feeble-minded children had no moral claim upon us, it would be to our advantage to educate them in connection with our normal schools. Massachusetts, New York, and Wisconsin educate as citizens a large class of children that Michigan supports as paupers. Many children go through life hopelessly idiotic because there is a small tumor of the inner ear which presses upon the brain, interfering with its action; children have been restored to normal mental conditions by the removal of such growths. Others of peculiar mental constitution find in schools for the feeble-minded such training as no public school can give, and are saved from degradation and pauperism by the State, which does only her duty in caring alike for all her children; for the State should afford schools for all minors or for none.

But this series of papers will have failed of its main purpose if mothers are not stimulated to a systematic study of children. A mother may observe and transcribe the dominant feelings and their means of expression in the youngest baby; ten minutes of such observation daily will open her eyes to the development of habit, and she will find herself observing the awakening of thought and the dawning of will with an understanding sharpened by these studies. An occasional review of her record may flash light upon something otherwise misunderstood in the character of her child.

Men of science are indefatigable in their scrutiny of nature; no man would trust his memory alone for any account of the daily changes in a chrysalis as observed under the microscope. But we let these developing minds, with all the complexity of influences about and within them, pass from stage to stage of growth, making no note upon the processes. It is not items for the funny columns of newspapers that we beg you to collect — it is *history* we need, and no one needs it so much as the mother herself. The record of everything done by a child in one day, in the order of doing, would be a revelation to the inexperienced observer. Richter has well said that a diary about an ordinary child would be more valuable than many books about children by an ordinary writer.

CHILDREN'S HABITS.

Habit is the enormous fly-wheel of society, its most precious conservative agent. — Professor JAMES.

PARENTS are often responsible for a critical and unkind attitude of mind on the part of their children towards associates. They cultivate it in them by constant attention to bad habits, forgetting that the good habits are to the bad as the sands of the sea compared with its shells.

For convenience, we will consider children's habits, as physical, mental, and moral.

Prevention is better than cure, in habits as well as in sickness. A kindergartner has mainly to consider those which have begun in peculiarities or accidents, and with wise treatment prevent their becoming fixed.

Singularity of gesture, or freak of facial 76

expression, should be promptly treated without attracting the attention of the child to its difficulty, and in a playful manner, without speaking of the object in view. The turning in of toes, shrugging of shoulders, hanging of the head, even sucking of the thumb, may be corrected before the muscles are so contracted as to render the change of action difficult. If the child is shy, and these gestures arise from an over-consciousness of hands and feet, draw his attention to external objects by your own interested observation of them, encouraging him to imitate animals and their motions. The child who plays he is a restive colt, tossing his head and prancing in his harness, gets valuable aid in the proper carriage of his own body.

Keep in mind, however, the safeguard of a new interest to prevent repetition of the muscular movement.

When a bad habit is formed, even one which has pre-natal excuse for its existence, it can be corrected by gentle, continued watchfulness.

A little girl of four years had a well-fixed habit of sucking her thumb, which was corrected by occupying the little hands in beadstringing, sticking shoe-pegs, etc. When the trial of bedtime arrived, the thumb was called the sleepy baby, and was playfully rocked in the crib of nurse's palm until the little mother slept, the hand being gently confined with a handkerchief during sleep, to prevent the unconscious action.

A child of three years entered the kindergarten with a habit of crying. The mother was visited, and questioned about causes, but could give none. The child had cried ever since her birth. "Did you cry much before the child was born?" "Cry! I cried six months, miss, hardly stopping to eat or sleep." The poor, uneducated, overworked mother was astonished to learn that her distress of mind had probably affected her child, and she was ready to help in undoing the injury.

Whenever the child began to cry, a fresh flower, a box of beads to string, a proposed walk, or some such pleasant surprise, involving a change of interest and occupation, was instantly proposed, nothing being said about the tears. A few weeks of this treatment produced a marked change, and at five years of age the child entered public school with no more tendency to "cry for nothing" than other children, having apparently forgotten her unfortunate habit. The parents had been requested not to rebuke her, or refer to it.

Another child, with a like affliction, scolded, taunted, and ridiculed at home and at school, grew out of childhood before outgrowing the difficulty, and bore into womanhood a face disfigured with passionate weeping, which had been aggravated by the cruelty of unthinking associates.

A child entered the kindergarten with a habit of trotting both feet upon the floor, the strained and intense expression of her face meanwhile being painful to see. The mother told a pitiful story of running a sewing-machine twelve and fourteen hours a day before her birth, the wolf at the door having been just let loose by the protracted illness of the father of the child. The mother had coaxed and scolded the little one by turns, not knowing any other method of treatment; but she joyfully co-operated with me in another way. When the trotting began, sometimes a low cricket was placed under the weary little feet, which prevented the action as long as the position was comfortable, the removal of the cricket proving another surprise and diversion. Sometimes the child was asked to bring a box or slate, just as she assumed the posture, the facial expression telling beforehand when it might be expected. This child became very expert in the imitation of birds, probably because given a large share in these exercises, with a view to developing the muscles in an opposite direction from that to which they were predisposed. At the end of the year the trouble was only noticed at times of unusual excitement or weariness. and at the age of six years the pained expression of the face and the tendency to trot appeared to be overcome.

One delicate case may be cited in a family of different station. A little boy contracted a habit considered vicious and immoral by the mother, the father looking at it entirely from the physical standpoint. It was wisely agreed that each apply a remedy. The mother attacked the moral fortress with prayers and precepts. The father (a physician, by the way) believed with Agassiz that a physical fact is as sacred as a moral principle, and conscientiously pursued his method. The boy was ambitious to grow to papa's stature, as what boy is not? He was also ambitious to do all his height and strength would permit in the care of the family horse, and the occasion for the first rebuke was chosen when the boy was helping to harness him. "I am sorry my son will never be tall enough to put on the head-stall, nor strong enough to drive the horse alone."

"Why, papa, I am going to be as tall and as strong as you!"

"No, my son, you will soon stop growing, I fear; you will be a weak, useless, dwarfed man, unless you break yourself of a bad habit which papa cannot break for you; your hands will grow weak and trembling before you have begun a man's work."

It is needless to say that the horse stood

unharnessed, and the boy was in his father's arms at the first grave sentence, and a sacred confidence was forever established between them. The hearty, well-meant promise, "never, never to do it again," was checked by the father, who would rather have a promise covering a specified time and briefer than one of so much indefiniteness as "never, never." A daily confession, based upon perfect truth on the part of the child and patience on the part of the father, with mutual determination to conquer the evil, was agreed upon. It was not long before the time was lengthened between confidences, as the child's strength of will grew. Aids of cold bathing, diet, and exercise were added to the moral support of the mother and the desired result was at last obtained.

Turning from physical to mental habits, not imagining that we can actually draw dividing lines, we yet feel ourselves upon more delicate ground, and offer opinions and suggestions with much trepidation.

Long observation of children, and study of mental physiology and philosophy, leads to one

conviction: That mental habits receive a strong bias before the thought of mental training has entered the mind of the average mother. Leaving out the question of heredity, good mental habits find their beginnings in the unconscious, undivided attention of the child to objects which interest it. The child should be a long way up the "hill of science" before he is able of his own conscious will to fix his mind upon one object to the exclusion of another. There seems little danger in allowing an infant to ponder subjects which present themselves with sufficient vividness to hold his attention, but much danger in attempting to force his attention to our abstract theories and jargon in a language yet unknown to him.

We often cruelly bewilder the child in its search after knowledge; our merriment at Baby's blunders, in language alone, often places a difficulty in the child's path which he will not surmount in years. Who has not seen the "rattle-brained" child whose attention is difficult to hold upon either work or play? and who shall say how much the rattle-box may have to do with that condition of the mind?

More than two thousand years ago Plato wrote: "Changes of toys should not be made too rapidly, for fear of developing instability of character." Is it not time to heed the caution of the divine philosopher?

Can we picture to ourselves what our state of mind would be, could we be placed upon another planet, with laws of nature quite new to us, the language unknown, and we deprived of power of escape from some grinning, gibbering giant who should consider it his duty to incessantly amuse us with a drum or a rattle, refusing us a moment's leisure to contemplate objects which interest us; treating our blunders with hilarity, — in short, doing by us as we do by our babe! Would we be likely to distinguish ourselves in wisdom or patience under such treatment?

Cultivating thought, even the crude thinking of infancy, is a help to language; when we have done what we can to let the child use its powers of observation, and it desires to express its thoughts in words, we should help it to correct expressions, remembering how lasting are the habits of incorrect speech.

A college graduate, a man of considerable ability, says, "I will rise the window," having used the wrong form of the verb in childhood and being entirely unable to speak correctly whenever a thought urges him to spontaneous utterance.

We should not fret the child by constant rebukes; in language it is usually sufficient if we take care of our example. Children correct their language more effectually than we can correct it if we use a wise discretion.

In considering children's moral habits let us keep in mind the greatest principle of education, which was taught by Aristotle, — good actions produce good habits. In forming a judgment of the child's action we need carefully to distinguish between the act and the motive which prompted it. More carefully than we guard the child we must guard ourselves in correcting him, lest some unworthy motive, concerning appearances merely, or personal convenience, shall influence our conduct. We are largely responsible if there is confusion of right and wrong in the mind of the child. Disapproval, even punishment, concerning accidents is sometimes more severe than for an act of selfishness, and selfishness seems sometimes the only immorality of childhood about which we can approximate a correct judgment. That which we think lying is often confusion of mind concerning relations of number or size about which the child lacks judgment.

A dream may be as vivid as a reality to the child mind. Two little girls met me one morning with astonishment, one exclaiming, "I thought you was dead! Wasn't you dead? I told sister you was!" I was led into an alley and shown a hole in the ground, in which those children thought I had been buried,— one by supposed ocular demonstration, the other by received testimony. How easily they might have been proven guilty of lying to the satisfaction of a careless observer!

It is wrong to accuse of theft before a child can be expected to understand anything of property rights. A comparatively safe basis of judgment may rest upon the secretiveness or non-secretiveness of the mind. To prevent a habit of misappropriation, the child should be kindly taken to the rightful owner of the object so appropriated, and gently obliged to restore the article, never permitting the mistaken kindness of allowing him to keep the article because the owner is generous or indifferent.

Assume that the child has made a mistake which he is willing to rectify, not that he is a hardened breaker of commandments.

Moral lectures separated from immediate wrong doing seem of little benefit. "Train up a child in the way he should go," cannot be wrenched into meaning that we should encourage our children to be mere theorizers upon moral subjects; hearers, not doers, of the word. There are abundant opportunities to begin the training of a child in right *doing* before he can understand abstract rules of action. An amusing anecdote of mis-applied effort may not be amiss. A little child, a mere babe, was sent to Sunday-school, where pious, but, we believe, mistaken efforts were made to instil moral principles by teaching isolated texts of scripture. The child learned Mother Goose Melodies on week days with equal pleasure, and upon the occasion of a public display of juvenile virtue and wisdom, the little one was placed upon a desk in order that she might be seen as well as heard. With perfect gravity she recited : "In those days came John the Baptist, preaching in the wilderness of Judea, saying: Old Mother Flipperty Flapperty fell out of bed, raised up the window and tucked out her head, and said, John, John, our old gray goose is dead!"

Nor could the baby heart or mind grasp the problem presented by the unseemly mirth which greeted her effort. It seems an easy mental path from John the Baptist to the John with an interest in the old gray goose.

With G. Stanley Hall we believe that the *right* should not be an exceptional thing, not a medicine, but a diet. There are hourly opportunities to insist upon the unselfish doing whereby the child will grow into habits of righteous living. George Eliot never wrote truer words than that the ten thousand little

acts in the right directions may decide the important choice in later life by which the man will rise or fall when a supreme temptation is presented. When we are unable to judge a single act by its possible motive, let us remember the statement of Plutarch, "It is often well to pretend not to have observed some actions of children."

A child is hardened by public rebuke. If we would help him to grow in sensitiveness to our approval and disapproval, let us privately rebuke his errors, remembering Rousseau's admonition: "You would indeed make a mere animal of him by this method if you are continually directing him and saying, 'Go, come, stay, do this; stop doing that!' If your head is always to guide his arm, his own head will be of no use to him."

The importance of children's habits cannot be over-estimated, but we are too apt to think of the child's character as clay to be moulded, rather than as a plant in God's garden, we being permitted to go "thus far and no farther." The eternal boundaries of the individuality of life protect every soul from the profane touch of every other soul.

An obedient, tractable little girl once turned upon her loving guardian with this question: "Now, if you should tell me to pick up this little stick, and I should say, 'I will not,' could you make me do it?" There was some hesitation about the answer and an attempted evasion: "I suppose my little girl would do it without making, if I told her to do it." "Yes, but I mean, could you or anybody else MAKE me do it if I would not?" And then there burst upon the astonished listener this assertion of a will power possibly just discovered by the young explorer: "I think vou couldn't make me do it, if you whipped me to death!" "I suppose not, my child. We are so made that we can do as we will, and it is a dreadful thing to will to do wrong."

Long silence on the part of the maiden of five, during which she smilingly picked up the stick which she had brought into the discussion, as if she felt the need of some self-discipline,

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and the walk was resumed. Soon the little philosopher began again: "Could *God* make me pick up the stick if I wouldn't?" "I believe not, my child."

Here were mysteries of development which set the elder speaker to a kind of thinking which was too serious to admit of much chatter, and the child, evidently relieved of a weighty topic, appeared to forget it in play. A few days later she asked for a whole day in which nobody should tell her to do anything; a day in which she need ask no permissions, but should do everything just as she pleased. The permission was somewhat fearfully granted, with some remark upon the danger of it, were she not a little girl who was pleased to do right.

The trust was not betrayed, and the restraints placed upon herself in matters in which she distrusted her own judgment were remarkable. This privilege of self-government was frequently asked during childhood and early girlhood, and these days grew to be days of great pleasure to all concerned. The child is now a woman of rare conscientiousness and straightforwardness, her will having been trained in such a direction that it spontaneously chooses that which is correct, her thoughts in the region of morals rising entirely above the mists of appearance into the clear shining of eternal right.

It is not argued that all children of five years of age could be thus treated, nor is it assumed that this was the only way in which this particular child could have been trained, — there are many paths that lead to the same "delectable mountains." In whatever one we choose to tread, let us remember the words of W. T. Harris: "It is quite necessary that we should, as educators, never forget that the humblest child — nay, the most depraved child — has within him the possibility of the highest angelic being."

LEARNING TO USE MONEY.¹

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Not what I have, but what I do, is my kingdom. - CARLYLE.

BEGINNING work several years since in one of the free kindergartens supported by private means, I was not only distressed by the improvidence of the parents, but alarmed by the tendencies of thought and growing character in the children. A little boy of three years said one day in a burst of confidence: "When I git big enough to work and git money, I'll git drunk like my papa and mamma." On being told there was a better use for the money earned by work, he asked with great interest and curiosity if I did not get drunk Saturday nights. When asked how he thought I procured my watch with which he happened to be

¹Read before the Massachusetts General Conference of Charities.

toying, he said, "Somebody guv it to you." I answered that with my money I bought books and clothes and would be ashamed to have any one give them to me. His wonder and astonishment I shall never forget; and his questions as to the cost of all my possessions, the amount of my money Saturday nights, and the puzzle as to how I could keep it over Sunday, showed an awakening perception which was most gratifying. He often told the children afterwards that he was going to buy a horse of his own. These children, whose fathers worked on the streets and whose mothers went out to wash, brought cents almost daily which were wasted on candy and greasy cakes. On one occasion we took them to the country for the day, and one little girl who had a cent began to inquire for a store as soon as we arrived there. She was told that the stores were left in the city; but she thought a peanut-stand would meet her needs, and on hearing that there were no peanut-stands in the woods, she began a fretful cry for candy, for peanuts, for cake, for gum, for anything, in short, for which she could

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exchange her cent. "Buy a daisy!" was half playfully suggested, and the problem was solved. She gave her cent to a playmate in exchange for a daisy and was happy. She had failed to gather any for herself while fretting for a store, but now that the cent was off her mind she plucked daisies with the others and was contented.

To correct and counteract such evil tendencies as these, an experiment was tried, which we believe to have been remarkably suggestive: a bank in the shape of an elephant was procured, and a bank account opened with such of the children as thought the fun of pulling the animal's tail and thereby throwing their cents from his trunk into his mouth, equal to that of buying candy and peanuts.

Between Christmas and the following June a dollar and sixty cents were placed in the bank, thirty children having made deposits. They were charged not to tease for money, and the parents made no complaint of their having done so. The depositors who were to leave kindergarten for public school in September were allowed to draw and spend the money at a fivecent store, the articles from which they were to choose being placed in a large basket, and consisting of a large variety of small and useful household things, as well as toys. On our way to the store, a child with sixteen cents stopped before a fruit store, saying, "I want a banana." She was told that she might buy it on her return if she should want it then and should have enough money left. At the five-cent store she bought a fan for her mother, and a pocket-book for herself, into which she put her remaining six cents, with the decided expression, "I've bought all I want." She even went outside, and sat contentedly on the steps while the others made their purchases. When we passed the fruit store on our return, she asked in an indifferent but absurdly business-like tone what was the price of peanuts; but she spent nothing more, and what is better, gave no hints that she would like to have anybody spend for her. She carried the purse with the six cents therein to a picnic next day, taking care of it all day without losing either purse or money.

Another child, who started for the store with seven cents, lost one in its frequent exchange from pocket to hand. She bought a doll, and carried a cent home to her mother. Another girl bought a tea-set, taking her remaining two cents to her mother and sister "for a present."

A boy with seven cents bought a hammer, taking two cents home to keep. Another boy, with twelve cents, bought a garden rake and a rubber ball, putting the remainder in his jacket pocket, but soon handed it to me, saying, "Put this in the bank for me, and be sure you write it down in the bank book." This anxiety about his security was quite natural, as we did not carry the book with us, and he thought it might be forgotten. He carried his rubber ball to the picnic next day, and was both generous and careful in play with it.

No child was advised or influenced in its purchases except in the case of the banana. In every instance the saving was entirely spontaneous, as well as the uses to which they put that which they saved. They were shown articles which they could have bought for a cent, and they had the full consent of their parents to buy anything of which the teacher approved, but every child refused to spend all it possessed. It may be thought by some that this money should have been put in the savings bank at interest; but the reward of self-denial in children should not be placed too far in the future.

And there are many who will agree in the belief that the judicious spending of money is as much a matter of education as the saving of money, and that early training in this direction may be a needful check upon miserly tendencies which might follow the extreme wastefulness against which we are working. It is hoped that seed was sown which will bear fruit in future domestic economy.

SOUND-BLINDNESS.¹

He cared for their heads as he did for their hearts, demanding that whatever entered them should be plain and clear as the silent moon in the sky. — PESTALOZZI.

Sound-BLINDNESS is given as a title, not because of its fitness, but because it is one in most common use and is made to cover as many shades of physical disorders as used •to be classed under heresy in the region of morals.

Actual deafness to certain tones Dr. Clarence Blake (one of the most eminent aurists in America) thinks is never congenital, as is blindness to certain colors, exception being made of cases of children who have no perception of musical sequence and of tone value, who never appreciate and cannot reproduce a melody. If other cases exist, they are not on record.

¹ Read before the National Convention of Teachers at Nashville, Tenn. We are perfectly familiar with the fact that children learn to talk by a slow and laborious process; that they learn to see and hear by processes more or less analagous is not so well recognized.

It is true that all infants are born deaf and remain deaf for a period, varying from hours to days, but comparatively few mothers know it or would believe the highest authorities, — Preyer of Germany and Perez of France.

On the other hand, the same doubts and denials are instantly met when told that a child was unmistakably affected by a rose-colored curtain when only twenty-three days old.

From observation we have learned that hearing develops more slowly than sight; we know the infant slowly learns to direct its gaze — not being so well endowed as a chicken in many of the beginnings of life. From experiments made by myself I know there is wide variation among children of the ability to locate sounds.

That there were such defects of sight as colorblindness and near-sightedness the public has been slow to recognize, and that Dr. Jeffries SOUND-BLINDNESS.

met with stubborn resistance even from teachers • when he began his investigations gives cause for shame and regret.

It would seem that from analogy alone we should have looked for some defects of hearing not amounting to actual deafness. We can recall such expressions as "you must hear with your elbows"; "you would better take the wool out of your ears," and others of like purport, the cruelty of which can only be excused on the ground that the inability to hear is attributed to inattention by those who make such remarks, for no one would use sarcasm upon a child afflicted with partial blindness, nor would partial deafness be so treated if understood.

I once read to a young girl who was learning to cook that onions were good for the mucous membrane.

"Good for 'membrin!" she exclaimed; "then I'll eat onions the rest of my life, for I never could remember anything."

I could not help laughing, but it led me to closer observation of the girl, who proved to

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have a disorder of the ear, which blurred her understanding of nearly all that she heard.

Permission to enter the public schools for the purpose of testing the hearing of pupils was granted by the School Board of Boston, and standing upon the teacher's platform, the following words were pronounced after testing the pitch and loudness of voice by a few words addressed to the master, who stood at the opposite side of the room: ultramarine, altruistic, frustrate, ultimatum, ululate, Alcibiades, and unaugmented. Time was given between the pronunciation of each word for the slowest pupil to write it upon a slip of paper, words being repeated as often as required, some of them having been clearly pronounced five successive times. In the Latin School, two hundred and fifty-nine boys, whose ages range from twelve to twenty years, were given this test, eightyfour of whom made corresponding mistakes in the vowel sounds, their papers showing, e.q., altramarine, ultruistic, frostrate, altimatum, elulate, olulate, alulate, and unolmented. At this stage of the investigation Dr. Clarence Blake

was consulted, who gave a much better list of test words; viz.: fan, log, long, pen, dog, pod, land, few, and cat.

The eighty-four pupils who confused the vowel sounds in the polysyllables were seated in their various rooms in the front row, while the observer stood at the back of the room, pronouncing these monosyllables but once, the pupils having had notice of this arrangement that they might give instant attention. Only four of the eighty-four spelled all these monosyllables correctly, their papers showing the same confusion of sounds as in the polysyllables.

A final and individual test with an aurist's tuning-fork was now given the eighty pupils who had failed in correct hearing, Dr. Blake kindly furnishing the fork (C, 562 vs.) and directing its use; the fork was struck with a rubber-covered hammer, the pupil standing twelve feet away, with his back to the observer. Two cases of deafness were found, which were known to the teacher, but not to the master. Several doubtful cases were found, which were given the benefit of the doubt, as it was impracticable to have them examined by a specialist.

In the English High School, two hundred and twenty-three boys between the ages of thirteen and eighteen were tested with the polysyllables, one hundred and five of whom made mistakes corresponding to those already noted. Of the one hundred and five, ninetytwo misspelled from one to four of the monosyllables, the errors being in general a repetition of those made in the Latin School, in which pupils are received prior to graduation from grammar school, while all English High School pupils are graduates of grammar departments.

In the Comins Grammar School five hundred and thirty pupils between the ages of eight and fourteen were tested with the monosyllables, only thirty-four of whom spelled all the words correctly. The tests here gave fairer results, the same room being used for every pupil tested, and the test words being given to classes of sixteen only, there being no other pupils in the room and no outside distractions; with the tuning-fork first used there were unavoidable variations of weight in the stroke, dependent upon the mental and physical condition of the observer, and Dr. Blake kindly furnished another more easily manipulated. Five children were found who could not hear this tone twelve feet away, and in neither case had the teachers or master suspected the existence of any disorder of the ear. Two of these were among the brightest in the room, and were seated furthest from their teachers; the others were supposed to be dull and inattentive. After the discovery of deafness, these pupils were particularly observed, and the bright ones were found to have the habit of closely watching the lips of any one speaking, bending to one side during dictation exercises, in order not to lose sight of the teacher's face.

We see from these tests one in each hundred in this grammar school has some disorder of the ear. To know if the five suffer from the same form of disease would require examination by a specialist. Dr. Clarence Blake consented to make the examination, but I was unable to take the time and trouble required to carry the work further.

One is immediately struck by the difference between final tests in the high schools and grammar departments, but is it not likely that the pupils in grammar school who work under the disadvantage of such a disorder *never* get beyond the grammar grade?

What the per cent would be in the primary grades is matter of conjecture, but it would be interesting to trace the relation between truancy and sound-blindness, and between general lack of interest in school work and dulness of hearing not even known by the child as existing at all.

The tests made prove conclusively the existence of an obstacle to the acquirement of information on the part of pupils which has never been sufficiently recognized as existent and the causes of which should be made the subject of special examination.

Agassiz wrote, "A physical fact is as sacred

as a moral principle." In this matter we have to deal with a physical fact of the gravest importance, one which may be so closely interwoven with moral consequences that the teacher may not be able to excuse himself if he continues to overlook it. Every child in our public schools should have the hearing tested at longer or shorter intervals. It is but just that the dull or inattentive child should have the benefit of such light as a test of this kind would throw upon his dulness or inattention, for the simple changing of his seat from the back or middle of the room to a point where he can hear all the teacher's words, might prove that there are some causes for inattention, mischievousness, and dulness that cannot be attributed to the perverseness of the child, nor can we flippantly assert that stupidity is his birthright.

A STUDY OF ADOLESCENCE.¹

A physical fact is as sacred as a moral principle. - AGASSIZ.

BEFORE entering upon this discussion, it is necessary to deprecate the one-sidedness with which it is usually treated. The rule seems to have been either to let the matter wholly alone as immodest, or to fly to the other extreme, which would preach its importance from the pulpit, discuss it at table, and teach it in school. It is natural that a physician whose specialty is diseases relating to this side of life should magnify the importance of all that relates to it; but we must insist that it should be neither neglected nor magnified. The great aurist will tell us that our asylums for idiots would be depleted if

¹ Read before the Women's Physiological Union, Boston, Mass. proper care were given the ear; the great oculist will show that most brain troubles originate in improper care of the eyes; but the most disastrous of all hobbies is this hobby of sex. Notwithstanding the dangers that beset us, we must face our difficulties, taking care to keep in mind the nice adjustment of all things natural, and help, if we can, simply to preserve that adjustment.

That in this country the adolescent period is much shorter than in other parts of the world has been overlooked even by many physicians. It is, nevertheless, a fact that the physiological changes are exceptionally sudden, and that our boys and girls pass through this fundamental crisis without the safeguards which it is our duty to provide.

Most mothers are aware of the more common outward signs of this approaching change; but many think their whole duty performed when some special temporary care has been taken that for a few months colds are not contracted. In case of any general derangement of health the physician is more promptly consulted at this period even by the most ignorant parents. No doubt every mother of a boy or girl of fourteen could describe the external changes which attend this period; but if every mother knew, as does the physician, that the change in her boy's voice bears little comparison to the greater change which takes place in his brain, and that the marked and rapid growth of her girl's bust is not as wonderful as the actual physical change of her heart which has not been complete in its form or action until now, — if mothers in general knew this and teachers understood it more fully, — then a paper of this nature would be superfluous.

Important as are the physical changes, they are not of such vital consequence as the psychological ones.

Poetry has paid its tribute in every tongue to this rose-hued day; religious rites have marked its advent in all tribes and nations. It remains for Science to lay her steadfast hand upon that which poetry has unwittingly enervated and religion unconsciously desecrated, not in irreverence nor in a spirit of captiousness, but in all earnestness to call attention to some mistakes which have to do with skepticism and irreligion no less than with the physical deterioration which has long been noted among the youth of our day.

Divinity doctors know that revival statistics show more conversions at this period than at any other. Perhaps revivalist preachers do not know the wide-spread feeling of contempt often expressed in country and village of the annual convert who began wasting his spiritual forces in emotional displays when but a boy at a protracted meeting. Hospitals of all kinds, especially for the insane, show that in this critical period lie the roots of hosts of diseases that crop out in later life, and none is more fruitful than that of "emotional prodigality" at this time. This particular error is founded upon the well-known plasticity of youth, and because of this plasticity the child should be protected from all one-sided, emotional influences. We might go back to Plato with great profit for our examples. How inspiring his lofty enthusiasm concerning the young! How great and with what power for good his picture of the self-poised Socrates who met the beautiful Greek youths with the then necessary tribute to their physical perfections, but never left them to dwell on these things, but called them higher so skilfully that they hardly knew the divine impetus had been from the outside.

Ancient and modern writers and teachers have dwelt upon the psychological importance of this period. The mass of literature upon its physiological side alone is bewildering, but that great German philosophers of modern times consider it of sufficient importance to write whole volumes upon it, as Schneider, Kraft-Ebing, and others have done, may well cause us to look seriously into the subject.

In view of these facts a paper was sent to a large number of parents, teachers, and physicians in America, with questions about personal observations which touched both the physiology and the psychology of the matter.

Notes on general health, temper, studies,

dreams, and tastes at this period were sought. The returns brought out one point rather more prominently than was anticipated; viz., the importance of dreams at this stage of life.

So many cases were reported as not particularly noticeable, except the increase of dreams, either beautiful or troubled, that this was made an especial point of investigation, keeping in mind the action of the brain in dreaming and the close relation between the brain and the sexual organs. These returns show a marked increase in the quantity of dreams at this period, and enough has been gathered to give weight to the theory that dreams are rhythmical, either increasing or decreasing at certain times in the month. The returns also indicate that radical changes are demanded in the mode of life and the subject-matter of education at the dawn of this period. Changes in hygiene, in food, dress, and social life are imperatively needed. Physicians and educators may warn in vain, but they must continue to make their demands. The dress of girls has been so wisely modified that statistics show an increase in average height and waist measure in the last twenty years. If some dress adapted to this climate, but fashioned upon the model of ease to say nothing of grace, which Greek and Roman youths wore when physical beauty was at its highest, we might hope to see a long list of weaknesses and crimes reduced to the minimum, instead of waxing to an alarming extent. The dress of our boys of to-day is about as unhygienic as it is ungraceful and uncomfortable.

Our errors in the subject-matter taught are equally grave.

Philosophy, as at present forced upon immature minds, is most disastrous. Introspection and any study which leads to it should be discouraged at this period. Questions of the reality of the external world, and of personal existence at this time of life, are as irrational as are the morbid appeals to morbid emotions in the revival meetings held for children. We challenge no motives in either case; but we must condemn a course of philosophy which makes restless iconoclasts of young men, as severely as we criticise religious methods which make a skeptical man of almost every overpious boy. We have no right to play upon the emotions at this critical time of life; they who do so are directly responsible for much spiritual torpor and physical derangement in later years. Every study, every occupation, every interest in life, at this time should look to the conservation of force, and not to its dispersion, to a rigid economy of spiritual enthusiasm, combined with a careful training of the muscular powers.

We must hold the attention and interest of our pupils without unduly exciting them. The subject of studies cannot be dismissed without a protest against botany with its present nomenclature, introduced as it is just when we would keep the thoughts of our boys and girls occupied with that which cannot be centred upon themselves. I know there is a theory that physiology should be taught through botany; but it seems pernicious to lead the brightest and most curious minds away from plant life by all this physiological phraseology with the special side of reproduction of animal life made prominent in so many of the botanical terms. It destroys that adjustment for which we plead.

MENTAL IMAGERY OF BOYS.

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What men think of the world depends upon what they know of it. — G. STANLEY HALL.

ONE hundred and thirteen schoolboys,' between the ages of thirteen and eighteen, were asked to write their first thoughts or mental images on seeing the words being, the infinite, literature, abstraction, number, play, coldness, horror, heat, faith, and fun. A word was written upon the blackboard and a few moments given the pupils to transcribe their impressions, when the word was erased and another written. A few minutes each day were given to the exercise, some three or four words being given in succession, number, play, and coldness happening to be given at one sitting. Many of the images have the local coloring of the time and place. The boys had been studying Sir Walter Scott, as their papers reveal, and during the week of the experiment the entire city of Boston was thrilled with horror by a suburban railroad disaster, the shadow of which is cast upon these papers, which also reflects the enthusiasm of the prize drill, the papers as a whole giving one the impression of a kaleidoscope where thoughts take the place of colored glass, the feelings regulating the symmetry of the forms.

Under *being* forty-four wrote "human being," which may or may not have been an attempt to define; eighteen wrote the name of the Deity under different forms; eight wrote "something living"; four gave it as "our life"; two as "human existence"; three specifying Wallace, Adam and Blanche, "myself"; others giving general examples, as monkey, dog, horse, man and woman. If one could but know if the man were a warrior, the dog a Saint Bernard, the monkey a wild one in a cocoanut tree, or one caged in a zoölogical garden, or passing its scarlet cap for the organ-grinder, — then the interest would be increased.

Creation and something that cannot be limited were suggested, and one poetic mind gave us this: "I see a beautiful being over a baby's cradle, rocking him to sleep." A minute description of that "beautiful being" would be valuable. Six gave no expression to their thought about the word, which might have been \cdot from shyness about giving the thought to another, or a misunderstanding of the experiment, and perhaps from a lack of any impression.

Under the word *infinite*, twenty-nine directly named God; one, love of God, none of these being of the seven who named Him under "being"; twenty-one gave no expression; five, the algebraic quantity ∞ ; five, the sky; three, the infinite number; two, the unknown; one, the problem never finished, $10 \div 3$; something dark; the future; number of wonderful things; number of boys; something beyond us; space; distance; "a long line of which I cannot see the end"; small thing; the universe; a large tree with infinite number of leaves; a sermon in which the minister said, God is infinite love; the air; time; city; a large man; the Globe building, — to this the boy added, parenthetically, "infinitely large"; miraculous; everlasting; heavenly spirits; space; day; end of being; life everlasting; Venus on the sun; something to happen; form of verb; grammar; book entitled Letters from Hell. No blanks were given with this word, but there were four under *literature*, a suggestive fact.

To twenty-six *literature* suggested books, some specifying good books, story books, etc.; seven wrote reading; three, history; three, Longfellow; three, Scott; three, Waverley; Ivanhoe, Dickens, The Inferno, Shakespeare, Homer, and Milton each having had honorable mention. Two dime novels were suggested. Among picturesque thoughts appeared: "A man printing a book"; "with literature comes sight of immense library with books of all ages and peoples"; "ancient Greece, especially Athens and old Greek tablets." A painting, funny composition, piles of papers, and something classical are as definite, perhaps, as some of the adult notions of literature.

Under abstraction there were thirty-seven blanks; twenty-three attempted to define or illustrate, some of these efforts being too unique for omission, as flavoring for ice cream; flavoring put up in bottles; getting a tooth pulled; apples and baskets; spoke of a wheel; kindness, and a man with head resting on hands, elbows resting on marble top table; a boy leaning on his hand and looking as if he saw something away off; sitting at a window in the country looking blankly into the air; a crazy person comes to mind; "I picture a man in deep thought"; works of nature, especially beautiful scenery. Others wrote kindness, goodness, grammar, future, a wood, part of speech, an abstract person, something small, pleasure of having plenty of money, baskets of flowers, and this list of words about which I am writing.

Under *number*, thirty-seven tried to define or illustrate; fifteen wrote that it brought to mind various numbers, 1,000,000, 1, 2, etc.; eleven left a blank; nine wrote a figure or figures;

two, algebra. Limitation was twice suggested, and under the preliminary "it brought to mind," or "it puts in my mind," were written: a row of blocks; a collection of men; the times I have been in swimming; the wonders of arithmetic; and number 30 La Grange Street. Others stated without explanation: the first page of an arithmetic; the score in a game of tennis; a number of soldiers; a lot of people on the Fourth of July; sand in the sea; crowds of people in various places. One boy wrote simply "newspaper," and another that number led to numerals. A connection was made between this and the two succeeding words, viz.: "On seeing number I thought of a number of boys — think of them yet as I see play, and the same group appears to be playing, but growing cold toward each other "

Three wrote unreservedly: I see a figure; I see a figure on the door; I see an unreadable number that I once saw. The italics are, of course, my own.

Under *play* thirty-seven defined or illustrated; five left blanks, one of whom gave the most

elaborate of the mental pictures under *abstraction*; seven specified children, some designating little children, and kittens playing in various ways; thirteen thought of base ball; four, of a theatrical performance, one of these specifying Lady of the Lake; two thought of Richard the Third; four, of lawn tennis; three, of piano playing, one giving this: "Play brings to me the figure of a person seated at a piano engaged in playing it." One wrote without preliminary: "A large stage over which are some red curtains and a very small man declaiming." The vividness of this sketch leaves the bad construction of the sentence for an after-impression.

Three wrote: "I see boys or children running round"; "I see the boys play"; "I see somebody playing."

It is interesting to note in the first of these vivid images that the boy saw more clearly as he wrote, or he would not have changed his sentence from "I see boys" to "I see boys or children."

Twenty-six defined *coldness*, the spiritual and physical significance being about equally re-re-

sented; twenty-six thought of winter, or a day in winter; seven simply wrote ice; five gave blanks; others giving such picturesque details as these: a man with a very stern face; a large field of ice; a frosty ground with here and there a stump; I think of the look of coldness on the face of a high-toned boy toward his poorly dressed comrades; surly temper; anger; shivering; Greeley's expedition to the North Pole; proud person; firmness in a man; making a call on a young lady who is not at home; dressing myself in a big overcoat; not being sympathetic toward the poor; don't notice any of your parents; I think of unhospitality; associated with kicking the feet against the dashboard of a horse car, and an ulster with a high collar; Iceland; sharp cutting wind; I see the frost and snow; I see a cold, haughty person; dark gray objects appear.

Fifty-one defined *heat*; five left blanks; three thought of a stove; two, of a furnace; one, of a furnace for melting glass, and one of a smeltingfurnace; one, of a register, and another, of a ratiator, gilded; one, of the school-house boilerroom; two, of summer; two, of fire; three, of the sun; one, of the desert of Sahara; the others, of parading around the city; a red-hot ball rolling on the floor; melted butter; anger; a day in East Lexington with buzzing of locusts; a fat man trying to get his breath; a large vat under which is a fire filled with saints.

Fifty-five attempted to define *faith*; fourteen left blanks; three mentioned dogs; two wrote simply a cross; one, a church; one, a catechism; one, a prayer-book; and others such typical subjects as Daniel in the lions' den; tableau once seen, picture of Faith, Hope and Charity; one thought of the Supreme Being, and another of an Irishman's exclamation. To one was suggested the water-cooler on the Common; to another the story of Saint Elizabeth. One wrote this: "Faith brings a figure of a child on a high fence, a person below trying to get it to come down, and then the child drops." Another gave this dramatic picture: "A girl following a very ugly man through a dark tunnel." And still

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another: "A frightened child clinging to its father for protection."

It was surprising that the word *fun* proved the least interesting of all, eight even leaving a blank. I half suspect these boys did not choose to write their notions of fun. A smiling face, a laughing boy, and a girl laughing were suggested, one boy writing: "I see boys playing."

Fifty-two defined or illustrated *horror*, eight of whom wrote "murder," and one "assassination"; some left blanks; others wrote death, fire, an avalanche, drowning and battle, two only suggesting ghosts. It would be interesting to know whether each thought of a particular fire, death, or battle. One wrote: "I imagine a murder"; another, simply a picture of a man to be hung. Others as follows: a beer-saloon; one being killed; the accident at Roslindale; a horrible-looking word, — looks as if it should be spelled *hell*; makes me think of some terrible accident; a woman and a mouse; a lady looking at an alligator; seeing a man run over here; a boy I saw stabbed, and another run over by a horse-car; a fellow holding his hand in the air, his hair standing on end; an old lady holding up both hands; horror is represented by a man falling from a great height, and many people are watching him; horror brought to my mind a person dying who regarded death with horror; makes me think of the time I was chased: makes me think of the feeling I would have if a large spider were crawling over me; the feeling I imagine if I were drowning; I think of a robbery; something cringing; a train, a smash-up with piercing shrieks; a woman standing with hands thrown back (from a picture I saw when a child); a dream of snakes I had five years ago; I see a house on fire, a girl with long, streaming white hair, dressed in white, standing at a window with the fire all around her.

A picture of a window was drawn on the blackboard for the same boys, who were asked to imagine it a real window, and to write what they saw in looking through it. These are the pictures seen: A tree and some houses; I seem to see a man wearing an old felt hat. I am looking in the window of a small cottage; there is an old lady in a large arm-chair, knitting; her young daughter is getting supper, and all seems comfortable and cosy.

Air, houses, trees, darkness, Christmas tree, children playing, a procession, soldiers, streets, people, many persons, horse-cars, express teams, large buildings, etc.

I see an old shoemaker pegging away at a laced boot.

A lot of boys going home; a long narrow lane in the country with a pasture on one side and a pond on the other, a guide-post and hills in the background; a green field in the country.

A moonlight night, a large brick house and a tree.

An old woman with a large dog that lives on the same street as I.

I seem to see a beautiful house surrounded by trees and a beautiful lawn.

A horse and team standing.

When I look through the window, I seem to

see a boy fishing in a river, and he seems to be catching many fish.

Through an imaginary window I can see a field, at the bottom of which there is a lake with boats on it, and beyond is a green forest.

If to a room, the form of the room and arrangements. Reminiscences: Looking out of that imaginary window I seem to see my mother scolding my brother.

I would see some glass.

I seem to see trees, a farm-house, grass, and cows, and the Presidential Range in the White Mountains.

The boy who was run over by a horse-car and his arm badly crushed; I saw a man fall down; a procession of boys marching along; the scenery from a window looking toward Mount Washington; the man selling lobsters; a palace court-yard; engine going to a fire and a crowd following it; I seem to see a black substance through the window; the sky; makes me think of the faces at Blackwell's Island, looking earnestly at the Boston boat.

A criminal behind a prison door; a stormy

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night; I see a face — it is a sad one with large eyes, which have evidently been crying—it is a girl's face with a charity cap on; a train rushing along filled with passengers; a landscape; I see a face through this window—it appears to me like a look-out on the world; a game of foot-ball; a horse-car loaded with people going down the street; a field; a woman sewing; I see the future; I see a horse and team passing; transparent; distant hill; a dungeon; trees, fields, spring, horse-chestnut tree; a hill covered with snow and a few bare trees; makes me think of seeing some one in a window; a large room with fine things in it; soldiers; an empty room; friend; nothing in particular; the State of Illinois; I saw some houses through the window; I see the trees and houses as I look through the window; stars; I can see green fields and the ocean, with a lighthouse on a large rock in the middle of it; a railroad station.

I am in a farm-house on a farm, and looking upon the cornfield and a few trees; some trees; a lawn inclosed by a fence, with a fountain in the centre; I see a house in the distance; sky, trees, houses seem to be the only panorama of a window.

I seem to see a blackboard; a room; saw a regiment of soldiers passing; I see a large house, square and brown; a dog-fight on Columbus Avenue; a comfortable room; I see an evening sky full of stars; I see the dog outside; looking at a picture, I think of what it is of, where it is, and who was engaged in it; a steamboat passing down stream; seeing a sight through a window which can never be forgot, either of horror or pleasure; I see a young man; it reminds me of the garden, a bed of geraniums at the house I lived in when I was in Germany; looking at a boy; a scuttle of a sinking ship one would see as if painted on a panorama before him from childhood to old age; I see through this window the ocean with about fifty yachts sailing; a tree and some houses; I see a child running across the street, a train is coming, and the child is knocked down and killed; a lamp-post; a boy fishing.

Eight boys drew a blank, and several of them drew pictures of windows on their own papers.

Such meagre data as the above show that those who disparage "mere sense knowledge" disparage children, who up to these ages show few traces of any other kind of knowledge, but think mainly in visual pictures, their mental life being chiefly made up of imagination and memory of their personal experiences. Logical definitions are never attempted. A true psychological definition of such terms could be got by greatly increasing the number of such returns and presenting the results by graphic, statistic, and descriptive methods. If anywhere constant appeal from the individual to the general consciousness is constantly needed, it is in the realm of abstract and general terms. If a carefully selected set of terms in the ethical field could be selected, and returns gathered thus and separately for different ages and sexes, valuable results might be expected.

Sir Francis Gulton in some studies of this nature, but on adult minds, makes a table of results from which he draws this conclusion: "Hence we may see the greater fixity of the earlier associations, and might measurably determine the decrease of fixity as the date of their formation became less remote."

The city teacher, more than any other, needs to grasp this law, and give the children an early and vivid outlook upon nature; walls and horse-cars, pavements, and engines are so likely to demand the attention of children that no opportunity should be lost to give a glimpse of the sky or clouds; to turn the thoughts to a grass plat or even a blade of grass, and so open the windows of the soul in the direction of influences which will accelerate spiritual and intellectual growth.

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