

## NEW DISCOVERIES



## ALL OVER THE EARTH

### How Your CHILD'S TOYS AFFECT HIS HEALTH

SCIENCE has discovered that children's toys are not mere playthings, but are instruments for the forming of mind and character. They react, according to the scientists, not only upon the physical being, but upon mental and spiritual sides of the nature. The Society for Ethical Culture in New York recently gave recognition to this newly discovered truth by giving an exhibition of toys that should survive. Those which should vanish, because useless or detrimental to the child who plays with them, were carefully eliminated. They were rendered conspicuous only by their absence.

That the minds of intelligent parents were at work upon the problem was shown by the letters sent by those whose children attended the Ethical Culture School. The Parents' and Teachers' Conference sent out letters of inquiry to parents. The questionnaire resulted in surprising unanimity in the expression of needs. Without exception the parents desired to know what toys were best for their children, and requested that an exhibition should be given of such toys. The parents generally responded that not only were some toys foolish and useless, but that they were harmful.

The Society for Ethical Culture appointed a committee to endeavor to solve the problem of right and wrong toys and directed it to confer with scientists and toymakers to that end. The findings of the committee were to appear in concrete form at the exhibition.

The exhibition, given at the Ethical Culture Society's Building in New York, set for all who saw a new standard in toys. Only those toys that educators and psychologists were convinced were genuinely helpful to the children were exhibited. Only those games were shown which the experts had determined would develop the child's faculties.

An object which attracted general and studious attention was a model of a playground. It was such a playground as could be arranged on the roof or at the rear of almost any home. It contained swings, sliding ropes, bars for "chinning" and rings by which the children lifted themselves above the ground. A

### Children Better MENTALLY, MORALLY and PHYSICALLY If They Are Allowed Only the RIGHT KIND of PLAYTHINGS

device by which children swung down an inclined rope was vouched for as one that had cured a little girl of what had seemed hopeless timidity.

There were numerous dolls, but it was observable that among them was not one monstrosity. Not one was out of drawing. Some were beautiful. All were normal. They were not dolls that did things unless aided by the child's strength and imagination. There were among them no crying or talking dolls, nor dolls that walked or danced by pressing a button, nor by any other mechanical means.

In the collection were toy animals, but none of the mechanical sort, none that could be wound up and would "go of themselves." A large, perfectly formed camel, a fine specimen of the nearly extinct buffalo, a bear and an elephant were exhibited among the useful toys.

An aeroplane was a central figure of the toy exhibition, and beside it were shown all the parts needed to enable an ingenious child with some direction at the beginning, to make his own airship. Accuracy was necessary, for if one part were omitted the aeroplane would collapse.

There was a doll house, but one not completely furnished. Many articles were left to the ingenuity of the child to supply.

One of the most interesting of the exhibits was a derrick, crudely built, it is true, but operative, which is the essential thing. Everything in the assemblage was either useful or beautiful. Whenever possible both qualities were combined.

On the whole the exhibition depended for its success on what was eliminated. Conspicuous for their absence were all articles of a freakish nature. All objects intrinsically ugly were banished.

There were no animals with horrible heads on natural bodies, nor natural heads on horrible bodies. Certain Japanese toy ani-



**Toys and Games Which Science Finds Especially Suitable for Children at Certain Ages.**  
 A—Four months, celluloid dumbbell. B—One to two years, large rubber ball. C—Two to four years, unbreakable dolls. D—Four to six years, picture puzzles. E—Six to nine years, dominoes.

mals were discarded, the remark of the three-year-old daughter of one of the committee being quoted in support of their action banishing a Japanese cat with hideous, grinning head: "Please take it away. I don't like it. I never saw anything like that."

Practically all mechanical toys were swept from the table. Trains that moved on circular tracks, arriving nowhere and going nowhere, were discarded, as were automobiles that ran on a set track. Only those toys which permitted the play of the child's imagination, as a train that could be directed from and to different points at the exercise of the child's will and imagination, were allowed to remain. A doll house, already furnished, was barred for the same reason. They removed the personal equation. They gave the child nothing to do.

Summed up, the exhibition by the School for Ethical Culture avoided all toys that stultify a child and displayed all that would promote his mental, moral and physical growth. Toys should be useful or beautiful, or both. They should stimulate his imagination or should train him to do something. If they performed neither of these offices they were useless, and because useless were harmful. There should be no toys that made the child a mere spectator, as a doll house that left the little owner nothing to do in fitting or caring for it, or a balloon that went of itself.

The committee of the School for Ethical Culture and its scientific associates deduced that there are but two results for the children who do nothing for themselves. If society continues to pamper them, they will become paupers or join the anti-social class—become criminals. For the sake of society it asks that all useless toys must go.

Miss Mary L. Read, B. S., director of the School of Mothercraft of New York City, in her book, "The Mothercraft Manual," issued by Little, Brown & Co.,

urges the forming of early tastes in play. She advises placing in the nursery "large, colored and artistic pictures of babies, cats and dogs," because their presence develops the social sense toward other children and a protective sense toward animals. Mrs. Read counsels the presence in the nursery of "a variety of forms and toys, harmonious, gay colors, attractive forms and features." She insists upon "the exclusion of ugly, vulgar, rude pictures and toys."

Miss Read, in an exceptionally interesting and informative chapter on "The Toy Age," says: "When the baby first begins to grasp objects and stare at them, the toy age begins. That is at about four weeks. It increases rapidly in force during the first year, and is at its height from two to about ten years. By twelve it is devoted chiefly to apparatus for games. It wanes with the decline of imaginative plays and gives way to interest in reading and in industries."

"Toys, as the child's constant, most intimate companions, and most used implements during these impressionable years, inevitably have a marked influence upon his character and development."

"How far are the child's expressions of desire for toys an index to the value of the toys or permanent interest in them at home? Relatively slight. It is necessary to distinguish between his passing whim and vital interest. Children are momentarily attracted by the gorgeous, the vivid colored. This explains their interest while in the toy shop in the realistic French doll with wonderful clothes and a speaking voice; in the mechanical toys and the flimsy novelties. At home, in the play room, they are soon broken and cast away without more than a ripple of emotion, and the realistic French doll languishes alone in her glory, while plain Mary Jane receives the daily ministrations of affection and comradeship."

"It is these factors of glitter, noise, rhythm, imitation, physical activity, combined with the possibilities of movement and counter-movement, augmented by the attitude and remarks of their elders, who, assuming the reasonableness of war, praise military activities, that explain the child's interest in military toys. Any other toys that have these same qualities will hold the child's enthusiasm as well. Engines, trains and their crews, fire engines and firemen, steamboats and sailors, life-savers, fishermen, policemen, mines and miners, steeplejacks, divers, painters, carpenters, farmers—there is a great range of possibilities."

"It is true that not many of these are found in the

'the wayfaring man, though a fool, cannot err thereby.' International peace will begin in the nursery, in the training to ideals of activity and heroism that are constructive and helpful, not destructive."

Miss Read applies to toys these tests of value:

- Are they lovable?
- Are they durable in composition and workmanship?
- Are they stimulating to imagination, analysis, invention, initiative, activity, workmanship?
- Are they adapted to experimentation, investigation or constructive purposes?
- Are they adapted to the child's stage of development—that is, to his motor ability, his interests, his mental development?
- Are they sanitary, washable, without inaccessible corners to hair or dirt and germs?
- Are they artistic in form, color, expression—that is, simple in design, harmonious in color, genuine, without either thorough realism or sentimentality?

Among harmful toys Miss Read cites these as threatening the physical nature of the child:

Dangerous toys—those that have sharp edges, corners or points. Unhygienic, those not washable, made in an unsanitary factory; having paint or dye that runs; too small for the child's development.

Inartistic—those giving harsh, metallic, jingling sounds; ugly, ill-proportioned shapes; harsh or inharmonious colors; ugly, slithering or unwholesome expressions in dolls or animals.

Those toys that are in psychological sense harmful Mrs. Read classifies:

First—Mechanical, which merely amuse the child, making him only a spectator, instead of providing him means for his own creative activity.

Second—Military toys, demoralizing for these reasons: They cultivate the spirit of destructiveness instead of constructiveness; they foster callousness toward the value of human life; they give a wholly wrong impression of the meaning of war, omitting its destructive social and industrial effects, over-emphasizing the joy of its enthusiasm and rhythm.

In the class of harmful toys she places "the over-realistic and the super-refined, especially in dolls."

George Thomas White Patrick, professor of philosophy in the State University of Iowa, says in his work on "The Psychology of Relaxation" that the love of conflict in play is evidence of "a child's dreams that throw back to the cave and camp, the hunting ground and battlefield of his primitive ancestors," and is by no means laudable, nor to be encouraged.

### ONE SUPERSTITION That OUGHT to Be BURIED

THE habit of promiscuous expectoration is an uncleanly and disgusting one, and yet, strange to say, it is surrounded by much superstition. In days of antiquity spitting was resorted to in order to ward off danger, and up to the present time luck is wooed and misfortune avoided by the process of spitting.

Newborn children are treated to a lavish expectation in some countries; fishermen spit upon their hooks after baiting them.

In Sweden a great deal of superstitious spitting still takes place. Persons spit into their beds before retiring; playing cards are spat upon when luck is bad, and every new suit of clothes is made the object of a salivary demonstration.

The widespread belief in the wonderful powers possessed by saliva is, however, not always allied to imaginative superstition, but often seems to savor of empiricism. In parts of Scotland warts on the hand are supposed to vanish with great celerity should they be anointed each morning with the first spittle formed by their owner's salivary glands after awaking. The

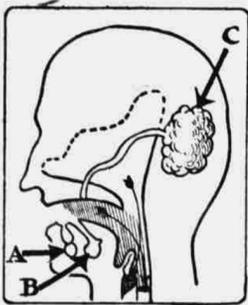


Diagram Showing the Location of the Three Separate Sets of Salivary Glands—the Sublingual (A) Under the Tongue; the Submaxillary (B) Along the Side of the Tongue, and the Parotid (C) at the Angle of the Jaw.

most extraordinary part of the story is that there seems to be a degree of truth in it.

In America the curative power of spittle is vouched for by many of the intelligent classes. The wounds

of dogs are said to heal best if treated solely with the injured animal's tongue.

The Gaelic race has ever been deeply absorbed in legendary fancies and mythical creations, many of which are connected with spitting. Ireland is noted for its many "evil-minded" people. In many cases the evil-minded person is compelled by the injured man, on pain of bodily damage, to spit upon the object of his pretended admiration, and at the same time to invoke a blessing on it. Admiration from an evil-minded person is always regarded as of ill omen.

In Connemara a bowl is sometimes sent around the neighborhood, and each person to whom it is presented is expected to spit into it. The bowl is then taken home, and the person or animal overlooked is anointed with spittle. The object of this is to obtain the spittle of the person responsible for the injury without giving him offense or awakening his suspicion, as a direct appeal to him would be certain to do.

Superstitions are said to die hard; and it would seem from the foregoing facts that the one under dis-

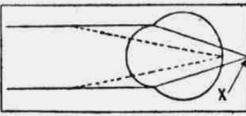
cussion has been endowed with a phenomenal vitality. Despite its absurdity, filthiness and unhygienic character, the salivary superstition has still survived; whereas, on sanitary grounds, it should, without further loss of time, be buried and never be revived.

### Just Why HIGH PLACES Make You FEEL GIDDY

THAT peculiar sensation known as "giddiness," which we experience when standing on high buildings looking earthward, has recently been interestingly explained by science.

According to this explanation whenever our normal vision of moving objects is suddenly impaired, or the sense of sight is shocked by some unusual catastrophe, we are affected like a young colt suddenly blindfolded. There is a constriction of the heart muscle and a sensation of fullness in the throat which makes us feel that we are choking or fainting.

Far-sighted people are less prone to a giddy sensation at great



How Parallel Light Rays Are Focused by a Far-Sighted Eye at a Point (X) Behind the Retina Instead of in Front Where They Do in a Normal Eye as Indicated by the Dotted Lines. Far-Sighted People Are Seldom Giddy.

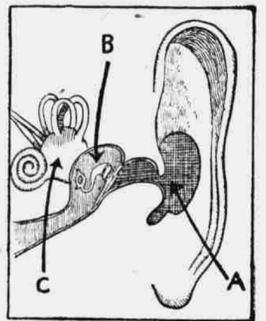
heights than those near-sighted. This is because objects moving and passing beneath them are less blurred by distance, air currents and heat waves. It has long been

the practice to recommend looking at nearby objects to steady one's nerves when feeling giddy.

The optic and aural sense of balance are somewhat interlocked in their action on the nervous system. To many people the sight of blood produces exactly the same sinking sensation and faintness which is known as giddiness under other circumstances. Sea-sickness is another phase of the same affection.

The mechanism of the middle ear is believed to provide a sense of balance to human beings and, when this very delicate organ becomes deranged while we are on ships tossing in a heavy sea, the much-dreaded sea-sickness takes hold of us. In some people this sense of balance is super-acute and they are never able to become so accustomed to sea travel as to eliminate the ailment.

Famous steeple-climbers often complain that certain sights or sounds make them "lose their nerve" when they are working at great heights. Some assert that the sound of music absolutely unnerves them if they can hear it at all clearly; others that a sudden



Diagrammatic View of the Ear Showing (A) the External Ear; (B) the Middle Ear, and (C) the Inner Ear. It is the Mechanism of the Middle Ear, Science Believes, That Helps Provide Us With a Sense of Balance.

noise, such as the dropping of a hammer on a steel girder, causes them to lose their grip.

All these apparent superstitions may be traced to very logical causes when one comprehends the delicate structure of the nervous system involved in our sense of balance,

### SAVE YOUR CIGAR ASHES—They Are WORTH MILLIONS

THE war is teaching the nations of the earth how much they have been throwing away. Germany was supplying the world with potash, and as the supply has been cut off there France, England and the United States have been put to it to supply the great need of this important product.

The latest discovery of a large source of potash, which has been overlooked, was made by Professor B. A. Burrell, of London, who shows that England is throwing away tons of potash in a very usable form. He has made a special study of the ashes derived from burning tobacco, in pipe, cigar and cigarette, and he has proved that 30 per cent of the tobacco is preserved as ashes, and that from these ashes may be extracted 20 per cent of potash and 5 to 6 per cent of anhydrous phosphorus.

He found that a cigar weighing two ounces left more than one-half ounce of ash, which yielded 1 per cent of potash. Twenty cigarettes weighing a little more than one ounce yielded one-third of an ounce of ash and one-twentieth of an ounce of potash, and a pipe stuffed with tobacco gave a similar percentage of ash and potash.

He claims that it would be well worth while to collect tobacco-ashes, especially where much smoking is done, as in the clubs and hotels and restaurants. On one day Professor Burrell collected nearly three ounces in a hotel lobby, over three ounces in a restaurant and nearly fourteen ounces from a theatre where smoking was permitted. He figured that as England smokes 45,241 tons of tobacco a year, they would get 13,573 tons of ashes, and 2,715 tons of potash by saving the ashes.

In the United States the consumption of tobacco is far greater. We produce more than a billion pounds, we import over forty-five million pounds from Cuba and Porto Rico, besides imported cigars costing more than \$4,000,000 a year. We export over 300,000,000 pounds, and \$6,000,000 worth of manufactured

tobacco and cigars, but our consumption is more than seven hundred million pounds a year.

This would yield over 220,000,000 pounds of ashes from which we would secure more than 44,000,000 pounds of potash and some 10,000,000 pounds of anhydrous phosphorus. The value of both of these

products has increased so enormously since the war began that it is easy to see how we are flicking away something like \$50,000,000, which could easily be saved by gathering the ashes from all the ash-receivers and selling them to the chemists who are equipped to extract the potash and phosphorus.

### Why WEDDING RINGS Are So Often VERY ANNOYING

ONE of the greatest annoyances experienced by jewelers is the oft-repeated complaint that their gold ornaments cannot be pure gold because they blacken the skin. Many jewelers have been accused of adding lead to the gold. Wedding rings are the source of greatest complaint.

This blackening of the skin which comes in contact with gold is in-

variably explained by one of two chemical reactions. It is caused either by oil compounds or by sulphur.

The oil of the skin, which nature provides for the sake of pliability, contains more or less oleic acid. When gold is rubbed over this substance a chemical reaction produces oleate of gold, which is black in color.

This same reaction often takes

place as a result of oils in soap or cold cream and ointments. If a handkerchief is moistened with a drop of oil and rubbed briskly over pure gold, the same black oleate of gold is deposited on the cloth.

To a lesser degree, an excess of sulphur in the air or in the body produces a similar blackening of the skin when it comes in contact with gold. A gold watch carried in the same pocket with a box of sul-

phur matches will very soon become as black as gunmetal. Matches kept in a bureau drawer will blacken all the gold and silver ornaments in the surrounding drawers.

The yolks of eggs contain a large sulphur component and silver or gold plated spoons are immediately blackened when used in eating eggs. Certain people have an over abundance of sulphur in the system,

and gold jewelry will tarnish unusually fast when in contact with their skins.

The purer the gold used in jewelry the more of the black gold deposit will be left on the skin. Fourteen, eighteen and twenty-two karat golds register their purity by the amount of their deposit. This is why purer gold is less durable and wears away faster than gold containing a large percentage of alloy.