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material is not exhausted and it exists to be developed; since there is a stronger smack of the vigorous barbarian than any suggestion of morbid exhaustion in the English character. "Calchas" yearns for a German Kaiser, believing that British politics do as much to paralyze national enthusiasm and to confuse national effort as the Kaiser does to stimulate the ideas and concentrate the action of his people; indeed, the writer is of the opinion that if the British nation could be taken in hand for ten years by a benevolent despot, with a genius for constructive statesmanship, no nation would prove a more profitable subject.

To any one who is acquainted with the habits of the English people of all ranks, it will be agreed that the author speaks with a true judgment of the situation when he says that the weakness of the British. as compared with their two greatest competitors, is the difference in the view which is taken of the relation between pleasure and work. The German, with his thorough, intellectual interest in his own line takes more pleasure in work than in play. The American goes with irresistible vigor into both work and play, while the average Briton thinks far too much of sport while at his job. The situation is admirably summed up in the statement that to the nation which is supreme in the scientific spirit will supremacy in the twentieth century belong, and if England is to remain an international ignoramus, and to be dependent more and more upon America and Germany for her electricians and chemists, and for all the newest appliances in her oldest trades, the wavering balance in which the future of the country hangs must drop downward. It is considered that America cannot be prevented in any case from attaining, at some period during the twentieth century, the industrial leadership of the world, and that the real task of Great Britain and her best chance of success, if she is thoroughly awakened in time, will be in the struggle with Germany for the second place.

The writer finds considerable satisfaction as regards the future in the fact that the immense lead which Great Britain at present possesses, which is considered to be in itself a solid and enormous asset, if rightly understood and utilized, should enable that country to fight a formidable defensive struggle in the endeavor to make the inevitable encroachments more gradual than the Pan-German mind imagines, and to hold its own for all sufficient periods of power and prosperity until the reconsideration of the British outlook a hundred years hence. It is pointed out that the total volume of British exports and imports is still half as much again as that of Germany, and twice that of the United States; and the reader is reminded that it takes time for the swiftest pursuer to reduce a long lead.

THE UNSCIENTIFIC CHARACTER OF CHINESE PLAY.

BY ISAAC TAYLOR HEADLAND.

Little has been written thus far on Chinese play, and what has been written has been for the most part a mere reference to children's games in the treatment of other, perhaps more important, subjects.

The games of all peoples may be divided into two general classes. First, those which arise from a natural disposition or need for exercise or entertainment, which need may be either mental or physical, and is the same among all peoples. Second, those which are the product of inventive genius for the purpose of a more scientific mental or physical development of the race. Up to the beginning of the nineteenth century there were few complicated games invented in Europe. and none in Asia, cricket dating from about the beginning of the eighteenth, and baseball from the middle of the nineteenth, century.

All Chinese games, unless we except chess—and I think we need not except even that—are to be classed in the category of natural productions. These spring from various instincts, such as the parental or protective instinct which is inherent in every boy and girl. For its development every people have dolls prepared for their girls and games for both girls and boys. One of the most interesting Chinese games of this kind is

THE HAWK CATCHING THE YOUNG CHICKENS.

The children stand one behind the other, having their largest and most kindly disposed boy or girl in front, who protects them from the hawk. The hawk comes to snatch away the chickens, but the line of small chicks swing around from side to side, while the old hen spreads her wings and keeps between ber brood and the hawk.

Another instinct is curiosity—or hunting and catching—a disposition which, in the child, originates all kinds of blindfold games, and is not very different from that which induces the anatomist to dissect a body, the botanist a flower, or the cat to put her paw in

Closely akin to this is the guessing instinct, which, in China as elsewhere, has originated a large number of games, many of which are similar to those played in Europe and America, though, so far as can be deter-

Scientific American.

mined, there is no trace of either having borrowed from the other. One of these games is

POINTING AT THE MOON OR STARS.

The children form themselves into a ring, with one of their number blindfolded in the center. As the ring moves around they sing:

> I point at the moon or stars as they pass. It may be a laddie, it may be a lass; But, whether a laddie or lass that I sing, His duty is clear—to come into the ring.

The ring stops and the boy points. If his finger should be directed toward the vacant space between two boys, the ring moves again, but if directed toward a boy, he takes the place of the one blindfolded.

Other instincts are those of striking, pounding, kicking, hopping, bumping, and the games which illustrate them are both as numerous and as interesting as those which are played by our own children; while other instincts, such as that of exclusion, are represented by games corresponding to our tit, tat, toe, or e-ne-me-ne-

There are certain parts and conditions of the human body which are peculiarly adapted to being played with or to call forth games. These are the fingers, and all the various positions in which they may be placed; the toes, the five senses, and the tickling of the neck and the knee, and so we have various games corresponding to our "Little Pig went to market," "Knock at the door," "This is the church and this is the steeple." etc

Every boy has a desire to excel, whether it be in the matter of quickness of reaction, activity, exertion, strength or ingenuity. And so, in China, as elsewhere, we have games which contribute to all these compound or complex mental and physical qualities. They pitch cash very much as we pitch quoits. Two boys hook their fingers together and pull until they break apart, after which they both exclaim "Honor!" The one who says it first is entitled to an obeisance on the part of the other as a penalty for being too slow. In the matter of the development of physical strength they have games in which there are all the elements of danger to be found in our baseball; these are the pitching of the stone lock, the use of the great stone dumbbells, and the man-wheel, which require the exercise of all the muscle the boys possess, and contribute to its development as well as our own games.

Closely allied to their games, and based on the same natural instincts and principles, are contortions and acrobatic performances. For this purpose the Chinese invoke the friendly aid of a tree limb, or, in the absence of a tree, two boys hold a carrying pole on their shoulders, and a third goes through all the contortions natural to boy life—"skinning the cat," hanging by his heels, toes, legs, arms or hands. He learns to bend over backward, picking up a handkerchief with his teeth, and two boys double up together in such a way as to make a cart-wheel and roll about the court.

All these games, it will be seen, are simply outgrowths of natural dispositions and needs. None of them represent anything like the inventions of our own complicated sports. Indeed, while the games played by Chinese children are in many cases very interesting, in few cases are they complex. They have nothing which corresponds to our complicated inventions, such as cricket, football, baseball, croquet, golf and a hundred others, which, by the way, are the result of the most modern inventive genius, and were not known or but little played in the time of our grandfathers. They are of the age of electricity, steam, photography, stenography and a thousand other kinds of scientific progress not known a hundred years ago—the distinguishing characteristic of the nineteenth century, the greatest of all centuries in the matter of sci-

One of these games, played by boys from eight to eighteen, contains a moral element I have never seen in the games of any other people. It is what they call

KICKING THE MARBLE.

They have two marbles an inch or more in diameter, one of which they put upon the ground and shove with the foot. Then the other is put down, and one boy tells the other to put it north (south, east or west) of the first. If he shoves it so as to hit the other and still go in the position indicated, he wins double and is entitled to two kicks. If he simply goes in the position indicated, he wins and is entitled to one kick. When he is through, he tries to leave the two balls in such position that they will be difficult to kick. If, however, he makes the position too difficult, the other says, "I will not kick; you may kick," and he is thus compelled to play his own difficult game-or, like Haman, hang on his own gallows. The game is one well worthy of the Chinese, and one of the most widely popular games of any played in the north.

These games, like everything else Chinese, are a further proof of the practical nature of the Chinese and their almost complete lack of the inventive faculty The reason for this could easily be shown by a short review of their methods of education, which con tribute to the development of memory to the exclusion of reason, imagination and invention.

----SCIENCE NOTES.

Greenwich time has been adopted officially by Spain, and the hours are numbered from one to twenty-four as in Italy.

Constantinople was visited with a severe snowstorm on January 16. The tramways were stopped and traffic on the railways was interfered with.

In Winona, Minn., there have been nine hundred cases of smallpox, and some of the surrounding cities have established a quarantine against the infected city.

The official report of the financial department of the Paris Exposition shows a loss of only \$400,000. The expenditures amounted to \$23,300,000, and the receipts amounted to \$22,900,000.

It is estimated that the amount of money that was disbursed on January 3, 1901, in interest and dividends amounted to not less than \$175,000,000. About half this amount goes to savings bank depositors.

The brother of Andree, the missing aeronaut, despairing of his brother's return from the Arctic regions, has finally opened his will. The tenor of it shows that the explorer hardly expected to return.

A movement is on foot to mark the place of Commodore Perry's landing at Yokohama, Japan, with a suitable memorial. It is probable that it will take the form of a lighthouse on the dangerous Plymouth Rocks at the entrance to Uruga Bay, the beacon to be surmounted by a bronze figure of the commodore.

The year 1900 was an excellent year for fruit in Switzerland, and a manufacturing firm in the canton of Aagau decided to erect a plant for utilizing the apple crop. Machinery was put in for peeling, coring and slicing apples. The baking was accomplished by placing the slices on trays which were something like gridirons, one being placed over another in the ovens. An electric motor was used to warm the air for the

Rare Egyptian papyri are to be distributed among American universities and museums. Antiquities collected by the Egyptian Exploration Fund are distributed among American institutions pro rata according to their subscriptions. Columbia University, Vassar College, Hamilton College, Yale University and the Metropolitan Museum of Art will receive papyri. They are all numbered and described and are sometimes given in facsimile in the volumes issued by

The special agent of the United States Department of Agriculture in charge of the Experiment Station at Sitka, Alaska, reports that there is not the slightest doubt that grain can be matured almost anywhere in Alaska. He obtained samples of perfectly ripe barley, oats, wheat and rye from several points in the interior, even far north. These grains were grown and matured during 1900. With one exception they grew from seed accidentally scattered and grown wild. If the grain will grow and mature without culture, it is reasonable to suppose that it will grow and improve if properly planted. Flaxwas also grown at Sitka. It attained a height of more than three feet. Matured seed are produced, and a fiber of excellent quality. There is no doubt that flax would be an excellent crop

The British Museum has recently come into possession of a mummy which is generally believed by the experts, who have been privileged to examine it, to be the most ancient yet discovered. This addition is of unique value, in view of the fact that it conveys a more comprehensive idea of the origin of the ancient Egyptians than has ever yet been obtained from similar relics. Upon this point there has always been a wide divergence of opinion among archæologists. The mummy was taken from a neolithic grave. It is the body of a man about 5 feet 9 inches in height Upon the scalp is a remaining lock of hair which suggests that it was originally of a fair color. The hands and feet are small, and from the intellectual formation of his head it is conceded that he must have belonged to a superior race. The result of Egyptological investigations declares that the mummy is that of an aborigine of Egypt, which was conquered by an Asiatic invasion about 8000 B. C., and which afterward intermingled with the conquering race, thus constituting the foundation of the race known as. Egyptians. The grave from which the body was taken out was an oval cavity in a sandstone rock, and covered with a number of large slabs of stone. Ranged round the body were the usual flints and earthenware pottery. It was found impossible to remove the grave of the body together with the mummy, so an exact replica of the tomb was made, and the body now reposes in a case in the Egyptian gallery of the museum in exactly the same position in which it was