

mitting a greater display of muscular force, exacting more complicated motions and a longer apprenticeship. It is sometimes hard to draw a clear line between sport and play. Fencing, equitation, and canoeing are varieties of sport. Cricket is as much a play for children as an exercise of sport; in short, in the hygienic view, sports are half way between gymnastics and play, and are therefore more suitable to youth than to children. Plays give the form of gymnastics most congenial to the conditions of social life, for they are at the same time hygienic and recreative, and are as well adapted to the physical requirements of the child as to his moral needs. Physically regarded, they demand neither very intense efforts nor localized muscular contractions. Even the most complicated of them call out nothing more than combinations of simple movements and natural attitudes; while gymnastics necessitate abnormal combinations in the association of the muscles, with movements which the child, having never practiced, has to learn laboriously. Play presents no difficulties comparable to those offered by gymnastics. If the child has not yet become adept in the game, he will play badly and lose his part; but he will play, and will at least gain the physical advantages of exercise. But when he is dealing with the abnormal motions or "turns" of gymnastics, if he has not yet learned the way of executing them, or acquired the knack, which it often takes a long time to gain, he only makes a pretense of exercising, and his effort is limited to a fruitless tentative, without any effective activity. Besides the support of reason and observation, the method of exercise by playing has the sanction of acquired facts. It was the only children's gymnastics at the beginning of this century, and even now some nations have no other settled method of physical exercise. The English have never taken to gymnastic with apparatus; and the Belgians, after having tried it, are abandoning it and returning to play. No one can question the excellence of the results of the English method; the vigor and endurance of English youths are universally recognized, and their school games constitute their whole gymnastics. — *Translated for the Popular Science Monthly from the Revue Scientifique.*

The South Pole.

The golden age of antarctic discovery arrived when captain, afterward Sir James, Ross was dispatched from England in 1840 to fix the position of the south magnetic pole, and any other position he could discover on the way there. Before Ross could reach the scene of his labors, other explorers, English, French and American, were busy forestalling him. Of these, the first was the Englishman, Balleny, who, sailing in Enderby's ship, the *Eliza Scott*, discovered in 1839 the islands which bear his name, and which lie almost under the antarctic circle, almost due south from New Zealand. Balleny could not land on the

islands, but he made sure of their existence; and afterward, sailing far to the westward, he saw many more signs of land and suspected the existence of much which he could not certainly vouch for. What Balleny thought he saw was probably much what the French expedition under Dumont d'Urville actually did see in the following year, several long lines of coast, which might be joined to one another, and might even run on to join Enderby Land in the west, and if so, might certainly be parts of the antarctic continent that d'Urville was anxious to find.

Not less anxious was Wilkes, the leader of the United States exploring expedition, who, only a month after the Frenchman, arrived within a degree or two of the antarctic circle, to the south of New Zealand, and, after seeing land where Balleny had certainly seen it before, began to fancy that he saw it also where none had saw it before, and, unfortunately, where none has seen it since. For some days, indeed, Wilkes doubted whether what he beheld were mountains or clouds, objects which his crew watched eagerly, to see if with the setting of the sun they would change their color. But after running westward along the edge of the pack for a few days, he made sure that he now saw land, and somewhat inconsequently assumed it for certain that what he had seen before was land also. The discovery of an antarctic continent was announced as a certainty; a very large land with a barrier of ice before it, and a range of mountains upon it, was laid down on the map; and a copy of the map was handed by the rash but generous explorer to Ross, who left Tasmania in the autumn of the same year, to look for the magnetic pole, with the two ships *Erebus* and *Terror*, which afterward bore Sir John Franklin to his fate at the other end of the world. Ross had so little doubt that the antarctic continent was discovered already that he seems to have been almost disappointed when his way to the magnetic pole was barred by an unknown land. Yet this land, which lay south of the seventieth parallel and eastward of Balleny's islands, was the most southerly hitherto seen in the world, and on it rose mountains thousands of feet high, plain and mountain alike robed in stainless snow, except on the cliffs by the shore, where the black rock came out. The coast ran almost due north and south, and along its eastern face Ross advanced steadily till he had beaten Cook's record and also Weddel's, and gone further south than any before him. But he could find no landing place on the main land, so choked was every inlet with snow and ice; only on a small island were the adventurers able to touch antarctic earth, a few men among thousands of screaming and biting penguins. Fresh mountains came constantly into view as they moved southward; at last one in latitude 77 degrees over which what seemed a cloud of snow was blowing, but when they came nearer they saw that the cloud was smoke, and gave the name of Mount

Erebus to a giant volcano higher than Etna, which belches forth smoke and fire in a land where all things are frozen. Before Mount Erebus lies Cape Crozier, and round Cape Crozier Ross hoped to find a way to the westward, so as to reach the magnetic pole by the back of the new land he had found. But as they approached they saw stretching from Cape Crozier "as far as eye could discern to the eastward," a "low, white line," the nature of which they did not understand till they came close enough to see the truth with their eyes. It was a wall of ice 150 feet high, without break or slope, but one glittering, perpendicular steep, through which, as Ross said, one might as easily pass through the cliffs of Dover. Along this gleaming rampart Ross ran eastward for 250 miles, and in the succeeding year, 1842, for 200 more, without coming to its end, on both of which occasions he reached the high altitude of 78 degrees south, which has never since been approached by any man.

Value of Intellectual Training.

Speaking of people who consider culture to mean a smattering of Latin and Greek, acquired in a spirit of pedantic vanity, Matthew Arnold said: "Culture indefatigably tries, not to make what each raw person likes the rule by which he would fashion himself, but to draw ever nearer to a sense of what is, indeed, beautiful, graceful, and becoming, and to get the raw person to like that." Disparagement of a regularly organized course of intellectual training is, in truth, too common among us, and there are not wanting persons who promulgate the doctrine that it is destructive to general usefulness. As a proof of its supererogation they cite this or that brilliant example of success springing and blossoming, to all appearance, like an air-plant. But the men who have suffered from such a lack of educational advantages would be the last to make light of it; they are wise enough to know that they have succeeded in spite of their drawbacks, not because of them. If any one can prove that it is best to do a thing nine times in the wrong way, until we stumble, after infinite toil, weariness, and discouragement, upon the right method, then we may be willing to admit that education and training are of small importance.

The idea that learning destroys individuality is preposterous. It can no more rob a man of talents than it can bestow them upon him. To the proposition that it is the enemy of originality, teaching us to lean upon the thoughts of others instead of thinking for ourselves, the answer may be made that the creative mind does not refrain from imitation of its own volition, or as a matter of principle. "Genius does what it must." All the wisdom of the ages could not have blinded Richard Jeffries' eyes to the mysteries of flower and weed, or dulled his ear to the whisper of reeds and grasses, any more than it could have given Robert Burns a contempt for