

your little company of observers, some loftier hill or the mountain-top, and, from such a height, advance your knowledge, possibly, to distant states.

THE USE.

Now let us consider the practical advantage of this actual observation of the earth's surface, and the various objects, natural or artificial, thereon presented. In the first place, it is evident to all that the examination of any material thing by the naked faculties is better, for all possible purposes, than the reading or studying of a description of it. It is safer, certainly, to see a farm with one's own eyes before purchasing it, than to trust to any written description. The general who has actually inspected the ground on which he is to make a campaign, is far better prepared for its emergencies than if he knew the field of operations only as presented by the map. The same may be said of every practical concern. The mind must be prepared to comprehend clearly what is distant, and what cannot be come at through the naked senses, by a thorough inspection of similar things within their reach.

These intellectual facts have scarcely been thought of by the generality of parents and teachers in this time-consuming, and, we may say, heart-burdening matter of education. Now what do children, for the most part, see when they cast their eyes upon a map? Nothing but a plain surface of paper, with black lines crooking here and there, called roads and rivers, and little dots having the names of towns and cities, with blotches standing for mountains; and this is just about all. The brute animals would take into notice almost as much. But with this actual training of the observing powers, as has been recommended, there would appear right on the map, as it were, in definite forms and colors, seen by the vivid imagination, real hills, valleys, streams, roads, every thing just as the map was intended to represent them. That plain paper surface would seem moulded into all the various features and appearances of nature by that mind's eye which had been studying the real earth in these pleasant family excursions. Thus geographical language would be all filled and made rich with real science—the earth's facts. Pray try the experiment, and see.

SCIENCE.

North Polar Exploration.

BY CLEMENTS R. MARKHAM.

Voyages of discovery have been, since the dawn of modern times one of the chief causes of the rise of England's power and greatness. The material wealth which they have been the means of pouring into her lap is incalculable. For this alone they will ever be a leading feature in the history of a mighty commercial nation; for this alone they have been fitted out by many a merchant adventurer; and for this they have been incessantly urged upon the attention of many successive Governments. But it is not on account of the commercial advantages that have been derived from the labours of the explorer that those labours are to be most prized, seeing that it is not to wealth alone that England owes her greatness. Exploring expeditions by sea and land have done as much to increase the store of human knowledge as any other kind of research. They have led the way to the creation of that colonial empire, which had spread the Anglo-Saxon dominion far and wide over the earth. They have fostered the spirit of enterprise, and formed a nursery for the pick of our seamen. They have been a school for our best officers, educating them in that calm self-reliance which the presence of danger alone can give. They have been most important agents of civilization, creating a brotherly feeling of sympathy between the nations in times of peace, and giving one bright side even to the horrors of war, for,

by the courtesy of international law, a scientific expedition is respected by all civilized nations.

Seeing, then, that expeditions of discovery have helped so largely to make England what she is, it is no less a matter of surprise than of regret that any proposal to continue them, and to complete work which it is the glory of this country to have commenced, should meet with unreasoning opposition from any influential quarter. Surely it cannot be desirable to close the brightest page of our history for ever, for the purpose of saving a little money, or in order not to risk the lives of men whose value to their country arises from the education they acquire by that very process. The grand saying of good Sir Humphrey Gilbert, when advocating an expedition to the Arctic regions, can never be too often repeated.—“He is not worthy to live at all, who, for fear or danger of death, shunneth his country's service or his own honour, since death is inevitable, and the fame of virtue immortal.”

Let it once be shown that an expedition of discovery will add to the sum of human knowledge, that it will lead to valuable scientific results, and that there is no chance of the men who compose it being overtaken by a catastrophe such as that which befel Sir John Franklin's people, and it ought to receive cordial support from public opinion. The collateral advantages that are derived from such expeditions in times of peace are so great that they will be felt by every thinking man. All men may not fully appreciate the value of scientific researches, but no true Englishman can under-estimate the importance of fostering the spirit of enterprise in his countrymen, or fail to desire that the race of men, from Cabot to McClintock, which has been formed by expeditions of discovery, should be continued.

What would the glorious reign of Elizabeth be if the stories of Raleigh and Drake, of Frobisher and Fenton, of Richard Hawkins and Grenville, and Gilbert were blotted out? The very name of James I. would fill us with shame, if those of Hudson, Davis, and Baffin were not written in the same page of history. Even the disgrace of having been ruled by his grandsons is slightly mitigated when we find them sending Captain Wood to seek for the North Pole. The readiness with which the statesmen of the last century complied with the suggestions of the Royal Society to send out exploring expeditions wipes away a multitude of sins, and we may condone many acts of misgovernment in consideration of the voyages of Carteret, Byron, Cook, Phipps, and Vancouver. It must never be forgotten that Nelson received no unimportant part of his naval education in the Arctic regions: and that, in the present century, the surveyors and explorers of our navy have been among its brightest ornaments.

The naval enterprise of Great Britain has assuredly been one of the chief sources of her greatness, and it is for the advantage of the country that the spirit which gives rise to it should be fostered and encouraged. Never has this spirit been so systematically ignored, in any period of our history, as at the present moment. Not only is there no exploring expedition engaged in any part of the world, but the most necessary surveys have been starved and neglected. The important proposal to explore the North Polar region, which has recently been made by Captain Sherard Osborn, therefore, comes before us at the very time when its discussion is likely to produce much good, and it certainly deserves most serious and attentive consideration.

I propose, after giving a very brief sketch of the history of the subject, to examine the question whether Captain Osborn's proposal combines those conditions which would justify its favourable consideration by the Government—namely sufficiently important results, and the absence of any chance of such a disaster as overwhelmed the Franklin expedition. The great advantages that are invariably derived from enterprises of this nature, independently of their more obvious result, have already been pointed out.

It has been the ambition of British explorers to reach the North Pole ever since “Master Robert Thorn exhorted King Henry VIII., with very weighty and substantial reasons, to set