

## NATURAL HISTORY FOR THE LITTLE ONES.

## MORE FLOWERS OF THE SEA.

ADAPTED FROM JULIA MCNAIR WRIGHT.

## THE OCEAN.

The Ocean, often called the sea, covers three-fourths of the earth's surface. Its water is salt and in constant motion. In it live countless fish, and on its surface very many ships sail from one country to another, carrying people, provisions, clothing, and various articles for use or ornament.

The Ocean is useful to us not only in furnishing fish, but as a great highway for ships. There are many children who have never seen the ocean, or eaten any of its fish, or seen anything that was brought in a ship. Let such children should therefore think that the ocean is of no use to them, and that it would have been better if the earth were made with pretty fields, farms, and gardens all over it, they should know that without the ocean no child, man, bird, or animal could live on the earth.

Animals live mostly upon grass, vegetables, or grain of some kind, which grow on the farms and fields.

The rain waters the fields and farms, fills streams, rivers and lakes, and furnishes drink for men and cattle and all creatures that live on the earth. When the vapour or moisture in the air freezes, it falls in the form of snow. When the drops of rain freeze before they reach the ground, they fall in the form of hail.

From this you may readily understand how a certain drop of water may be changed to vapour, rise from the ocean, be carried by the winds far away and over the land, changed back to water, fall on the ground, sink down below the surface, find its way to a spring, reappear in the overflow, run down a hillside, and become part of a rill, rivulet, brook, or other little stream. The stream flows on, falls over steep places, forming cascades or waterfalls, turns mill wheels, receives other streams, becomes deep enough and wide enough to float large steamboats, and at last finds its way into the ocean. Thus that little drop of water, after a long and curious journey, may return to the place it started from.

As the land on the earth's surface is higher than the ocean, you all know that the water of the ocean could not run up and over the land.

Now, how do the waters which you find on the land, even on very high lands, such as springs, rivers, and lakes, get there? They are formed by rain or melting snow. Where do rain and snow come from? From vapour or clouds. Where do vapour and clouds come from? The ocean.

All of you who have seen a kettle or pot of water boiling have noticed that something white, like smoke, rose from the top of the water. It was not smoke, but vapour. Vapour is the water so thinned out by heat as to become light enough to rise in the air. Have you not also seen the inside of windows in cold weather all wet with drops? The vapour coming near the cold window is only changed back again to water.

If any of you should hold a cold substance, such as a pitcher filled with snow, or ice, or cold water, over boiling water, you would see the vapour rise, and as soon as it touched that cold substance it would be changed into drops. That is the way rain is formed.

As cool air cannot hold as much vapour or moisture as warm, dry air, some of the moisture falls in the form of rain. That which falls on the land waters the fields and farms, and fills the streams and lakes.

The ocean, then, supplies or fills all the lakes, ponds, rivers, and streams; every drop of water on the surface or under the surface of the land, on the mountain top or in the deepest valleys; all the water of the wells and springs; all the moisture which floats in the air; and all rain, snow, hail, or dew.

The words ocean and sea are often used to refer to the whole body of salt water on the earth; which may be considered as divided into five parts, also called oceans. There are five oceans: Pacific Ocean, Atlantic Ocean, Indian Ocean, Arctic Ocean, Antarctic Ocean.

At our special request, one of our first scientists has undertaken the supervision of this charming Department. A Question Box has been opened, and the Editor has much pleasure in asking the co-operation of parents through this means. Address letters—"Natural History Question Box," YOUNG CANADIAN, Box 1896, Montreal.

(To be Continued.)

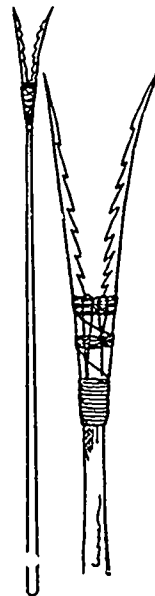
## HOW TO MAKE A FISH SPEAR AND A WICK TORCH.

"I don't know! Shure I *never* tried," is the answer reported to have been made by an Irishman, when asked if he could play the fiddle. No doubt there are many boys who would give a like reply if asked if they could spear a fish.

An amateur's first attempt at casting a spear will probably meet with about the same success as "Paddy" might be expected to achieve in his first trial of a fiddle; but almost anything can be accomplished by practice. The keen enjoyment of the fisher who by his skill and dexterity has succeeded in striking a fine fish, can only be compared to the pleasant triumph of his brother sportsman in the field who has just secured two birds by a difficult double-shot.

## HOW TO MAKE A FISH SPEAR.

Make the shaft or handle of any straight stick or pole, seven or eight feet long; trim it down, and test the weight occasionally by balancing it in the hand. When the shaft seems to be about the proper weight, it should be let alone, and attention directed to the barbs for the head of the spear.



In place of the ordinary single point generally used as a spear head, the fishing spear may be supplied with two points, as shown in the illustration. Any hard, elastic material will do for the head, split bamboo or cane, two pieces of heavy iron wire, filed to a point and notched into barbs upon the inside, as shown in the diagram, or the points may be made of bone like the fish arrows used by the inhabitants of Vancouver's Island. Very hard wood will also answer for the spear head. After the head pieces are notched and pointed, they should be firmly bound to the spear at a point a few inches below the end of the shaft. A couple of small wedges driven in between the shaft and the points will diverge the latter, as in the illustration. After this is accomplished, lash the barbs firmly on up to the head of the shaft. If a fish be struck by one of these weapons, it will be next to impossible for it to escape.

The elastic points at first suddenly spread apart as the spear strikes the fish's body; the next instant they violently contract, holding the fish