

PLEASANT HOURS

A PAPER FOR OUR YOUNG FOLK

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MENDING THE NETS.

The fisherman's wife, in the illustration, is trying to teach her little daughter how to mend her father's nets when they are broken, and they need mending very often. They are sitting on the beach and working away at the net as it hangs from the big fishing vessel. There is a certain way of mending nets, and also a certain way of mending them, and they have to be well and strongly netted. Don't these things—the sea, the boat, the nets and the mending—remind us of something we have read in the story of the life of Jesus? Didn't the Master call two of his noblest disciples to leave their lowly occupation of mending the nets with their father on the shores of Galilee, to come and follow him? And these two men, James and John, left their work and their home and their friends, and cast in their lot with him who had not where to lay his head. Do you think Christ would have called them if they had not been doing anything?

THE AIR.

BY PROF. W. H. DE MOTTE.

This great round earth we live on is covered with a layer of very fine matter as much as forty or fifty miles thick; just as your ball is covered with leather, or an apple with a peel. This matter is called the air. It is very much thinner than water, and still thinner than earth and stones. If the surface of the earth was perfectly smooth the ground would lie below because it is heavier, the water next, and the air above both. There would be a layer of water all over the earth if the surface was level. Parts of the land rise higher than others, and force the water into the low places, and so form rivers and lakes and oceans. There is only water enough to fill up these lowest places, and so about one-fourth of the earth's surface is left dry land. There is much more of air; enough to extend far above the tops of the highest mountains.

You know the earth is whirling round like a great top day after day, and at the same time moving around the sun very swiftly, making the trip once a year. Perhaps you wonder why the water does not spill off the earth as it turns, or the air be all blown away in the rapid flight. But, as Mr. Kipling says, that is another story. I may tell you about that some time, but now I want to tell you about the air only.

The air is a mixture of two gases, so rare that you cannot see nor feel them except when in pretty rapid motion. The air is always ready to enter any space where there is room for it. Dig a hole and the air goes right in to fill it. Let water run out of a barrel, and the air enters as fast as the water goes out—indeed the water cannot go out till the air is allowed to come in. When you pour water out of a bottle it is the air rushing in which causes the gurgling noise.

When you move the handles of a pair of bellows apart you make room for the air to

come in. And, too, when we wish to breathe, by making the space within the chest and lungs larger we make room for the air, and it comes in at once. We do not draw it in; as soon as it has a chance it enters of its own accord through the nostrils.

The particles of the air are so small

and put it with the other eggs under a setting hen. It will not be hatched. The varnish so fills up the little holes that the air cannot pass through into the eggs, and so the germ dies.

Everything living—plants as well as animals—must have air. We say fish live in water and breathe water, but this not

up so fine that you cannot see it any more than you can see the air. But as it rushes out it mingles with the air which soon cools it, and they together form little bubbles, which are visible. When these little bubbles are lighter than the air they rise, and collecting in the upper spaces, form clouds. These float in the air just as a piece of wood floats on the water, because lighter. If at any time by cooling the little bubbles of the clouds are condensed and run together, they become small drops of water, heavier than the air, and must fall toward the ground. Some times before they reach the ground they meet with a body of warmer air which rarifies them, and they rise again. At other times they reach the surface and we call them rain.

Sometimes, especially in the morning, these little bubbles of air and water are heavier than the air a little way up and cannot rise. Then we call them fog. If after a while the sunshine warms the fog the little bubbles become smaller and lighter, and it all rises and becomes invisible, like the air itself. Then we say it has "cleared off." If a cold wind comes and condenses the bubbles so that we can see them, we say it has "clouded up." All the time there has been just the same mixture of air and water, only sometimes we could not see it and sometimes we could.

DON'T YOU LOVE HIM?

ONE Sabbath a father called his children around him and asked them what they had learned at school that day. He was not a Christian man himself, but he had a pious wife, and the children went regularly to Sunday-school.

In their own simple way the little ones began to tell what the teacher had said of the beautiful home in heaven that Jesus had left because of his love for sinners. Nellie, the youngest, had crept upon her father's knee, and, looking into his face, she said, "Jesus must have loved us very much to do that, don't you love him for it, father?"

Then they went on to describe the Saviour, how he was betrayed by Judas and led before the high priest and Pilate, how the Jews called out, "Crucify him!" and how the wicked soldiers crowned him with thorns, and mocked him. And again the little one looked up and said, with tears in her eyes, "Don't you love him for that, father?"

At last the children came to tell of the dreadful death of Jesus on the cross, and once more little Nellie looked up at her father's face, and said, "Don't you love him for that, father?"

The father could not bear any more. He put his little girl down and went away to hide his tears, for the words had gone home to his heart. Since then he became a true Christian, and he says that little Nellie's questions had more effect upon him than the most powerful preaching he had ever heard.—*The Christian.*



MENDING THE NETS.

that they can get through very small spaces. Little pores or holes too small to be seen readily let the air pass through. So there is air almost everywhere. You would think the shell of an egg, so hard and smooth, must certainly be air-tight. But it is not. If it was, the egg would keep much longer. No, the fine air goes right through the thousands of little holes in the shell. Why the young bird could not be formed and grow without air. You can prove it. Cover an egg with any kind of var-

nish so that you cannot see it any more than you can see the air. But as it rushes out it mingles with the air which soon cools it, and they together form little bubbles, which are visible. When these little bubbles are lighter than the air they rise, and collecting in the upper spaces, form clouds. These float in the air just as a piece of wood floats on the water, because lighter. If at any time by cooling the little bubbles of the clouds are condensed and run together, they become small drops of water, heavier than the air, and must fall toward the ground. Some times before they reach the ground they meet with a body of warmer air which rarifies them, and they rise again. At other times they reach the surface and we call them rain.

Exactly true. They move about in the water, but they live on the air which is mixed with the water. If the air is expelled from some water by boiling, and then it be so closed up as to exclude the air, fish cannot live in it.

The clouds are not all water, they are water and air mixed. They are made up of little blue bubbles, that is, air mixed in small shells of water. The steam cloud is the same. As it comes from the boiler it has no air in it. It is only water divided